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Anna Vogel

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# **Swedish Dimensional Adjectives**

Anna Vogel

ACTA UNIVERSITATIS STOCKHOLMIENSIS  
*Stockholm Studies in Scandinavian Philology*  
NEW SERIES

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36

# **Swedish Dimensional Adjectives**

Anna Vogel

Illustrations by Agnes Stenqvist

Almqvist & Wiksell International  
Stockholm – Sweden



Doctoral dissertation 2004  
Department of Scandinavian Languages  
Stockholm University  
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## Abstract

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The purpose of this study is to give a thorough and detailed account and analysis of the semantics of twelve Swedish dimensional adjectives: *hög* 'high/tall', *låg* 'low', *bred* 'broad/wide', *smal* 'narrow/thin', *vid* 'broad', *trång* 'narrow', *tjock* 'thick', *tunn* 'thin', *djup* 'deep', *grund* 'narrow', *lång* 'long' and *kort* 'short'. Focus has been placed on their spatial, non-metaphorical sense. The study was written within the framework of cognitive linguistics, where lexical definitions may be given in terms of prototypical and peripheral uses. Four sources of data have been considered: a corpus, consisting of contemporary fiction, an elicitation test, designed for the purpose, dictionary articles on the pertinent adjectives, and the author's own linguistic intuition as a native speaker. The methodology has involved categorisation of combinations of adjective and noun, based upon three major themes: orientation, function, and shape. In order to determine prototypical uses, precedence has been given to the outcome of the elicitation test over the corpus search. For both sources, frequency has played an important part. The ranking of senses as stated in the dictionary articles has also been considered.

The results indicate that the dimensional adjectives differ quite markedly from each other, as opposed to a structural view where the adjectives traditionally have been regarded as forming a neat patchwork. Adjectives overlap each other for some uses (*högt gräs* 'high grass', *långt gräs* 'long grass' and even *djupt gräs* 'deep grass'), while there are also situations in which no dimensional adjective can describe an object. Furthermore, adjectives forming pairs, such as *djup* – *grund* 'deep – shallow', do not exhibit full antonymy, despite the fact that dimensional adjectives are traditionally cited as examples par excellence concerning antonymy.

Keywords: dimensional adjectives, semantics, cognitive linguistics, Swedish, spatial, antonymy, prototype theory, polysemy, corpus-based, elicitation test

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## Symbols, notations, and abbreviations

### Symbols

*	means ungrammatical
?	stands for not acceptable
(?)	stands for contested

### Notations

Vertical Axis	The name of an image schema is indicated by the first letter(s) being a capital.
LONG, LENGTH	An adjective or a noun in capital letters indicates a common term including individual adjective/nouns in separate languages, having a roughly equivalent meaning. For LONG, English <i>long</i> ‘long’, German <i>lang</i> ‘long’, and Swedish <i>lång</i> ‘long’ may be included.
<i>djup</i>	A lexical item in italics is to be understood as a linguistic unit.
‘deep’	A lexical item within single inverted commas stands for the meaning. This is mostly combined with a lexical item in italics: <i>djup</i> ‘deep’.

### Abbreviations

(B76–77)	Bonniersromaner I (1976–77), Språkbankens konkordanser. – Novels published by Bonniers, 1976–1977, Corpus collection, the Bank of Swedish.
(B80–81)	Bonniersromaner II (1980–81), Språkbankens konkordanser. – Novels published by Bonniers, 1980–1981, Corpus collection, the Bank of Swedish.

- (parole) Parole-materialet, Språkbanken. – Parole Material, the Bank of Swedish.
- (p95) Press 1995, Språkbankens konkordanser. – Press material published 1995, Corpus collection, the Bank of Swedish.
- (p96) Press 1996, Språkbankens konkordanser. – Press material published 1996, Corpus collection, the Bank of Swedish.
- (p97) Press 1997, Språkbankens konkordanser. – Press material published 1997, Corpus collection, the Bank of Swedish.
- (p98) Press 1998, Språkbankens konkordanser. – Press material published 1998, Corpus collection, the Bank of Swedish.
- (p99) Press 1999, Språkbankens konkordanser. – Press material published 1999, Corpus collection, the Bank of Swedish.
- lit. literally
- NEO Nationalencyklopedins ordbok, see Bibliography.
- IPS Inherent Proportion Schema
- PPS Primary Perceptual Space
- SAOB Ordbok över svenska språket utgiven av Svenska Akademien, see Bibliography.

The Bank of Swedish can be found at <<http://spraakbanken.gu.se>> as of February 3, 2004.

# 1 Background and purpose

As we understand the world, there are three spatial dimensions. Yet, in order to refer to these three dimensions, many languages, among them Swedish, offer a variety of dimensional adjectives, whose number surpasses the figure of three. The purpose of this study is to give a thorough and detailed account and analysis of the semantics of twelve dimensional adjectives: *hög* ‘high/tall’, *låg* ‘low’, *bred* ‘broad/wide’, *smal* ‘narrow/thin’, *vid* ‘broad’, *trång* ‘narrow’, *tjock* ‘thick’, *tunn* ‘thin’, *djup* ‘deep’, *grund* ‘narrow’, *lång* ‘long’, and *kort* ‘short’.

My intention is to offer ways of attaining a better understanding of the Swedish language in general and its dimensional adjectives in particular. Further, my results may form an element in the international research on dimensional adjectives. I also hope to make a contribution to the on-going theoretical discussion on semantics, in terms of theoretical assumptions, data, and methodology.

Dimensional adjectives have been used to illustrate antonymy, both in more theoretical discussions (Lyons 1977) and in linguistic textbooks (among others, Allwood and Andersson 1992). In such presentations, it is assumed that the positive and the negative lexical items exhibit a clear-cut, symmetric relation. Moreover, dimensional adjectives have been used in order to present and explain feature analysis (Greimas 1966). In such cases, interrelational dependence of the adjectives is assumed, so that what cannot be expressed by one adjective can be expressed by another, in a neat pattern. Later studies (see among others Lafrenz 1983 and Durrell 1988) have questioned such approaches, both regarding antonymy and the mutual dependence. Dimensional adjectives can thus be considered a fruitful basis for the exploration of relationships between words, both within the antonymous pair and within a greater set of words. Several of the facts taken for granted in traditional semantics have been questioned during the last three decades, and my study is an attempt to contribute to a more complex understanding of the Swedish adjectives. My starting-point has been an assumption that dimensional adjectives need not be related and dependent on each other to the extent that each adjective covers its share of a semantic field.

In the course of my work on the dimensional adjectives, I have successively developed a belief that instead of a neat patchwork, where one adjective borders to another, an alternative picture should be drawn. To continue with the metaphor of a surface, I want to suggest that some areas are blank because there is no good adjective referring to certain dimensions (under certain circumstances). Other areas are covered by more than one

adjective, since some nouns may combine with more than one adjective in order to refer to the same dimension. Examples are *snö* ‘snow’, and *gräs* ‘grass’, where combinations such as *hög snö* ‘high snow’, *tjock snö* ‘thick snow’ and *djup snö* ‘deep snow’ occur, as well as *högt gräs* ‘high grass’, *långt gräs* ‘long grass’, *djupt gräs* ‘deep grass’. In other cases, one adjective, describing one object, can be interpreted in more than one way. An utterance such as *kan du ge mig den tjocka vasen* ‘please hand me the thick vase’, which was once observed at a party, may result in a misunderstanding, as the person asking for the vase meant a vase with thick walls, but was handed a vase with a bulging, round shape. Initially, it was stated that three spatial dimensions are referred to by more than six dimensional adjectives. Thus, despite this fact, or maybe because of it, situations leading to confusion may occur in daily conversations when dimensional adjectives are used.

The majority of the dimensional adjectives indicate, in one of their meanings, that the pertinent object surpasses a presupposed norm. *En bred väg* ‘a wide road’ means that the road being referred to has an extension in the left-right direction above the average for roads. In my study, I do not examine the magnitude of the extension required for an object to be described by a certain dimensional adjective. This means that it is outside the scope of my study to describe how big a certain object (such as a road) needs to be in order to be referred to as *bred* ‘wide’. My purpose is rather to study why a road may be referred to as *bred* ‘wide’, and not a beach ball, to take a clear-cut example.

The study treats dimensional adjectives as used in a spatial, non-metaphorical sense. The spatial meanings are the foundation of a great number of more or less clearly extended and metaphorical meanings. In my study, such extended meanings are raised only when they contribute to the understanding of the spatial meaning. As already indicated, studying the spatial senses is *per se* a rich and complex task. The process has taught me that the dimensional adjectives are far more intricate than they appear at first glance, and hopefully, my work will help to shed more light on these fascinating lexical items.

## 2 Previous related research

Dimensional adjectives have been studied to a fairly great extent over the last four decades. The studies treat European languages with few exceptions (cf. Zubin and Choi 1984, Stolz 1996, Wienold and Rohmer 1997, and Lang 2001). No other study has focused on dimensional adjectives in Swedish or in any other Scandinavian language, except for my own studies (Ström in manuscript, 1997, 2000, 2001a, 2001b).<sup>1</sup>

In this chapter, an overview of the research on dimensional adjectives will be offered, with an emphasis on the theoretical assumptions. The results reported in earlier research, as well as data and methodology, will be accounted for more thoroughly in Chapter 5–11, in relation to the analyses. The results from earlier research often go into detail, and in the majority of cases, the authors treat more than one adjective. Taken together, they provide a very rich picture. I have separated the results of these studies adjective by adjective, in order to be able to summarise all the research concerning adjectives that can be regarded as equivalent terms or cognates to Swedish *hög* ‘high/tall’ in Chapter 5 on *hög* ‘high/tall’, the research concerning adjectives that can be regarded as equivalent terms or cognates to Swedish *bred* ‘broad/wide’ in Chapter 6 on *bred* ‘broad/wide’, and so on.

I will follow a chronological order, unless thematic reasons demand otherwise. The presentation will take its starting-point in 1966. It is my impression that prior to that, no important studies dedicated solely to dimensional adjectives were published, or at least none that have been influential for later work.

Greimas (1966) introduced the topic of dimensional adjectives when using them to illustrate a semantic system where units of meaning, referred to as sememes (*sèmes*), correspond to lexical units, lexemes (*lexèmes*). He studied six French dimensional adjectives. According to the author, a lexeme, like *haut* ‘high’, has several sememes associated to it. For *haut* ‘high’ and its antonym *bas* ‘low’, the relevant sememes are spatiality, dimensionality, and verticality. Another dimensional adjective, *long* ‘long’ and its antonym *court* ‘short’, are related to spatiality, dimensionality, horizontality and perspective. Yet another pair of dimensional adjectives, *large* ‘wide’ and *étroit* ‘narrow’, correspond to the sememes spatiality, dimensionality and horizontality (Greimas 1966:31–36). Greimas is punctilious about pointing out that his purpose is to demonstrate a method, rather than account for the meaning of the adjectives.

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<sup>1</sup> My publications until 2002 were published under my former name Anna Ström.

His approach is rather symptomatic. As was mentioned in Chapter 1 (Introduction, background and purpose), dimensional adjectives are often used to illustrate various relations, above all antonyms (see, among others, Lyons 1977:274).

Greimas (1966) provided a full-blood structural approach, assuming that the different features, or sememes using his terms, distribute themselves all over the semantic field, rendering positive or negative values for each adjective. Thus, the adjectives were compared and interrelated to each other in a systematic way.

Bierwisch (1967) continued this path in his analysis of the German adjectives. The article formed the starting-point of the study of dimensional adjectives. Bierwisch extended the scope of relevant features compared to Greimas (1966). The former study encompassed orientation (in terms of verticality, horizontality and laterality) and perspective, while Bierwisch added shape, number of dimensions, a hierarchy separating main dimensions from minor, proportions, inherency, distance, consistency, and density. Furthermore, he formalised perspective, tying it to an observer. While Greimas (1966) gave a brief, elegant, and tautly coherent analysis of the French dimensional adjectives, Bierwisch provided a rich picture, showing the numerous circumstances that influence linguistic use. Although some sections of the study are more tentative than others, the study is admirable. Despite its structural affiliation, the analysis foreboded many of the traits that psycholinguistics and cognitive semantics would develop, such as perspective in relation to function. Bierwisch acknowledged the strong association between nominal (noun or pronoun) and adjectives in the sense that studying adjectives will also involve study of the nominal. The study aimed at discerning primitive semantic elements that could possibly be universal. According to the author, the primitive semantic elements are not only constituents of the (dimensional) adjectives, but also of every nominal. If the primitive semantic element(s) of an adjective and the primitive semantic element(s) of a nominal are sufficiently similar to each other, it is possible to combine the two units, thus allowing the adjective to determine the nominal. If they differ too much, they cannot be combined. The semantic representation of the dimensional adjectives and nouns can thus (roughly) include the same markers, since a high correspondence in markers increases the chances that a certain adjective can determine a certain noun.

The privileged status among the related research motivates a more thorough account for the dedicated reader. The semantic markers regarding the dimensional adjectives are the following: (1 Dim), (2 Dim), (3 Dim), ( $\pm$ Pol), ( $\pm$ Vert), ( $\pm$ Second), ( $\pm$ Observer), ( $\pm$ Inherent), ( $\pm$ Main), ( $\pm$ Max), ( $\pm$ Round), ( $\pm$ Distance), ( $\pm$ Plain), ( $\pm$ Consistence), and ( $\pm$ Density). The two latter markers concern the non-dimensional meaning of German *dick* 'thick' and *dünn* 'thin'. Bierwisch separates the dimensional meaning from the non-dimensional one, in a rather provisional way, using his own terms

(Bierwisch 1967:33). All markers, except (1 Dim), (2 Dim), and (3 Dim), can be given either a positive or a negative value, expressed by a plus (+) or a minus (-), so that the positive marker is expressed as (+Vert) and the negative marker is expressed as (-Vert).

The first three markers regard dimensionality, where one-dimensionality is expressed by (1 Dim), two-dimensionality by (2 Dim), and three-dimensionality by (3 Dim). If an adjective describes one dimension, as does *lang* ‘long’, the adjective will include the marker (1 Dim). If an adjective can describe one, two or three dimensions, as can *dick* ‘thick’, according to Bierwisch, it will include the marker (*n* Space).

The fourth marker, ( $\pm$ Pol), declares a position on a scale. *Lang* ‘long’ is given a positive value (+Pol) while *kurz* ‘short’ gets a negative value (-Pol).

The next marker concerns verticality, where the positive value declares that a dimension is vertical and a negative value declares that a dimension is non-vertical. The marker (+Vert) is present for *hoch* ‘high/tall’, while *lang* ‘long’ receives the marker (-Vert).

The next marker, ( $\pm$ Second), concerns a dimension which is regarded as “secondary” or “second” in some sort of hierarchy. The German adjective *breit* ‘wide’ receives a (+Second) marker.

The marker ( $\pm$ Observer) states that an axis of the object, described by the adjective, is along the line of sight of the observer. (+Observer) is present in the semantic representation of *tief* ‘deep’.

The marker ( $\pm$ Inherent) declares whether a direction of an axis is inherent to the object, described by the adjective. The positive value (+Inherent) states that a certain axis of an object is described in the same way no matter how the object is turned or tilted. The adjective *lang* ‘long’ includes the marker (+Inherent). The negative value (-Inherent) declares that the direction of the axis depends on its normal placement with respect to its environment. The marker (-Inherent) is intimately associated with (+Vert) and (+Observer). The reason is that whenever the vertical axis or the observer axis influences the description of an object, the object’s own inherent axes will be dominated by the vertical axis or the observer axis in the description, thus distributing a (-Inherent) marker to the semantic representation of the adjective (Bierwisch 1967:26). The adjective *weit* ‘far’ includes the marker (-Inherent), as does the adjective *hoch* ‘high’.<sup>2</sup>

The next marker, ( $\pm$ Main), concerns the proportions of the object. (+Main) is distributed to the greatest one or two dimensions, while (-Main) is distributed to the smallest one or two dimensions. For a stick, the greatest dimension will receive (+Main) and the two remaining dimensions will receive (-Main), while for a flat board, the two greatest dimensions will

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<sup>2</sup> Whenever the marker (+Vert) and/or (+Observer) are present, the marker (-Inherent) is present as well. However, Bierwisch has chosen to let (-Inherent) have a redundant role, which means the marker is not expressed, but only implied in the semantic representation of *hoch* ‘high’ (Bierwisch 1967: 24).

receive (+Main) and the smallest one will receive (–Main). The adjective *groß* ‘big’ includes the marker (+Main).

The marker (+Max) is reserved for the greatest dimension, if there is one, while the marker (–Max) will be valid for the remaining dimensions. The marker (+Max) is present in the semantic representation of *lang* ‘long’.

The next marker, (±Round), is merely part of the semantic analysis of nouns corresponding to round objects, such as *Topf* ‘casserole’.

The marker (±Plain) concerns objects having an interior. (+Plain) is included in *flach* ‘flat’, while (–Plain) is part of *tief* ‘deep’.

The last marker, (±Distance), is an issue for adjectives that can describe distances, such as *weit* ‘far’ and *nah* ‘close’.

The German dimensional adjectives can be semantically represented by means of various combinations of the markers. Below, the adjectives are listed:

*Lang* ‘long’ includes (+Pol), (1 Space), (+Inherent) and (+Max).

*Kurz* ‘short’ includes (–Pol), (1 Space), (+Inherent) and (+Max).

*Breit* ‘broad/wide’ includes (+Pol), (1 Space) and (+Second).

*Schmal* ‘narrow’ includes (–Pol), (1 Space) and (+Second).

*Hoch* ‘high’ includes (+Pol), (1 Space) and (+Vert).

*Niedrig* ‘low’ includes (–Pol), (1 Space) and (+Vert).

*Weit* ‘far’ includes (+Pol), (1 Space) and (–Inherent).

*Nahe* ‘close’ includes (–Pol), (1 Space) and (–Inherent).

*Groß* ‘big’ includes (+Pol), (*n* Space) and (+Main).

*Klein* ‘little’ includes (–Pol), (*n* Space) and (+Main).

*Tief* ‘deep’ includes (+Pol), (–Plain), (1 Space) and (+Observ).

*Flach* ‘flat’ includes (+Plain), (1 Space) and (+Inherent).

*Tief* ‘deep’ and *flach* ‘flat’ are then antonymous with respect to (Plain), which refers more to shape, and not to (Pol), which refers to a position on a scale.

The dimensional meaning of *dick* ‘thick’ includes (+Pol), (*n* Space), and (–Main), while the dimensional meaning of *dünn* ‘thin’ includes (–Pol), (*n* Space), and (–Main).

The non-dimensional meaning of *dick* ‘thick’ includes (+Pol), (+Consistence), and (+Density), while the non-dimensional meaning of *dünn* ‘thin’ includes (–Pol), (+Consistence), and (+Density).

Four years after Bierwisch (1967) was published, Fillmore gave a lecture series in Santa Cruz, which was later published as Fillmore (1997). Making reference to Bierwisch (1967), Fillmore gave a brief account of the English dimensional adjectives, placing himself rather close to the results of Bierwisch (1967), adding a few remarks concerning English circumstances.

When referring to Bierwisch (1967), Fillmore (1997) omitted the structural apparatus of semantic primes, focusing on function, perspective, and salient dimensions.

Clark (1973) addressed the issue of dimensional adjectives in an article, treating spatial relations, mainly by taking the physical environment (such

as gravity and the ground) and human being physical and cognitive prerequisites into account. Clark worked within the psycholinguistic framework. He introduced the terms *P*-space and *L*-space, which should be understood as perceptual space, based on physical and biological criteria, and linguistic space, whose properties could be derived from linguistic considerations. Gravity, ground level and the asymmetries of the human body provide the basis for the *P*-space, while point of reference and direction are general properties of *L*-space. An example is how height and tallness have the ground as the plane for reference, and an upward direction as their reference direction. Clark's analysis formed a basis for later cognitive semantics, stressing physical and cognitive properties of human beings.

Lyons (1977), being grounded in a more formal semantic tradition, suggested a system regarding the dimensional adjectives in English. The adjectives taken into account were: *long*, *short*, *high*, *low*, *deep*, *shallow*, *wide*, *narrow*, *thick*, and *thin*. The detailed and thorough system, which clearly separates non-oriented objects from oriented ones, and further predicts which two or three adjectives will refer to what types of objects, making one adjective depending on another, must be considered structural. A fairly detailed outline of Lyons's analysis is provided below.

For a non-oriented entity, issues such as maximal dimension and hollowness are crucial. The maximal dimension, if there is one, will be identified as the length of the object. Balls and other objects without a maximal dimension do not have *length*. For an object that has *length*, the overall shape will determine what the other dimensions are called. If the extension of the object in the other two dimensions is very small in relation to the *length* of the object, these two remaining dimensions will be collapsed into the single dimension of *thickness* (such as a pole is described as *long* and *thick*). On the other hand, if the object has a significant extension, apart from the maximal one, the adjectives *wide* and *narrow* will apply. The third dimension will either be identified as *deep–shallow*, if the object is hollow, or as *thick–thin*, if the object is solid. For two-dimensional entities, the general pattern is the same. The maximal extension will be identified as the *length*. When labelling the second non-maximal dimension, there is a choice between *width* and *thickness*, depending on whether the dimension is regarded as significant. A significant dimension will be referred to as *wide–narrow*, such as when a street is described as *long* and *narrow*, while a non-significant dimension will be called *thick–thin*, like a line that is described as *long* and *thin*. According to Lyons, the way of describing something as a line is to say that it is essentially one-dimensional, the ideal geometrical line being one-dimensional.

For an oriented entity, the vertical dimension dominates over maximality, according to Lyons. While *height* and *tallness* are measured upwards from the point-of-reference, *depth* is measured downwards from the point of reference. *Depth* is only assigned to spaces or to hollow entities.

If the oriented entity has an inherent or canonical front, the dimension from side to side will be labelled *width* while the dimension from front to back will be labelled *depth*. An object having no inherent or canonical front has *length* (from end to end) and *width* (from side to side). Lyons further pointed out that an object has no *length* if, because of inherent or canonical features, the object's maximal horizontal dimension has been assigned as its *width*.

More than twenty years later, a team of Spanish linguists decided to test how well Lyons's predictions matched reality. In Galeote et al. (1999), Spanish informants were asked to refer to various object types by using (Spanish) dimensional adjectives or related terms such as HEIGHT and WIDTH. The fact that Lyons's analysis was tested on Spanish informants, while his predictions concerned English, did not seem to influence the outcome of Galeote et al. (1999) to any major extent. The authors found that informants make "errors" in relation to Lyons's analysis, more so concerning some adjectives and less so concerning others. The authors suggested the order of difficulty as HEIGHT < LENGTH < WIDTH = THICKNESS < DEPTH, which should be understood as HEIGHT being the dimension which rendered the least amount of "errors" while DEPTH rendered the most. The authors made a point of having tested Lyons's analysis on informants, since the results of Lyons (1977) were purely based on introspection. Moreover, the authors required that further research should take other facts than the proportions of the object and an orientation, determining one side as the front, into account. They suggested such qualities as the global characteristics of the object, the dominant relationships of certain dimensions, the observer's interaction with certain dimensions, and finally the functionality of the object.

These factors had indeed already been taken into account, both in research mentioned in Galeote et al. (1999), such as Lang (1989), and in research which seems to have been unfamiliar to Galeote et al, such as Vandeloise (1988, 1993), a study stressing the functionality, Dirven and Taylor (1988), referring to global characteristics such as profile against the background as well as to a dynamic interaction with the environment in the case of *tall*, and Weydt and Schlieben-Lange (1998) which brought functional aspects as well as what can be referred to as global aspects to the fore. I will come back to these studies later in this chapter.

During the eighties, two different types of research concerning dimensional adjectives dominated. One type dealt with German adjectives following in Bierwisch's (1967) footsteps, and another focused on English and French adjectives, continuing the road paved by Clark (1973). Lafrenz (1983) studied German dimensional adjectives, using an extended form of the semantic primes introduced by Bierwisch (1967). Lang (1989) developed an impressive and thorough account of the German dimensional adjectives, anchored in a structural framework called the two-level-approach. The sometimes tentative ideas outlined by Bierwisch (1967),

were developed and refined. A later study, Lang (2001), enriched the analysis of the German adjectives with data from other European and non-European languages. Lang (1989, 2001) distinguished an Inherent Proportion Schema, which takes the Gestalt features of the object into account, from a Primary Perceptual Space, which is based on the upright walk, the equilibrium and the eye level of human beings. In doing so, Lang (1989, 2001) approached Clark (1973), by stressing the importance of fundamental human physical and cognitive prerequisites. Thus, although working within different frameworks, the reasoning of Lang (1989, 2001) and Clark (1973) are sometimes close.

The other type of research, developing Clark's (1973) analysis and framework, is represented by Vandeloise (1988, 1993) and Dirven and Taylor (1988). By this time, cognitive semantics had emerged on the linguistic scene, and research on spatial relations, mainly focusing prepositions, was dominant. Both Vandeloise (1988) and Dirven and Taylor (1988) were published in an anthology, edited by Rudzka-Ostyn, which was to exert no little influence. Vandeloise (1988) dealt with English *length* and *width* in a functional manner, while Dirven and Taylor (1988) studied the concept of *height* and *tallness* in English. As mentioned earlier, Dirven and Taylor included such factors as dynamicity (an object referred to as *tall* has required its tallness, either by growing or by a human action), proportions, Gestalt properties, and the object's profile against the background. Vandeloise's (1988) results were based on intuition, while Dirven and Taylor relied on both corpus-search and elicitation tasks involving acceptability judgements.

Zubin and Choi (1984) and Durrell (1988) can be located somewhere between these two groups. Zubin and Choi performed a typological study, which placed itself between the criterial feature approach (part of the structural framework) and the family resemblance approach (which is closer to the cognitive framework). Zubin and Choi (1984) placed languages on a continuum based on different degrees of spatial boundary salience, and the authors also made use of a continuum to represent how extension in Greek is expressed regarding objects that are bounded (such as a room) versus not so bounded (such as a prairie). I am adducing detail at this level in order to show that the authors, no matter what they claimed, had moved some distance away from the structural framework, at least in their way of presenting the results.

Durrell (1988) studied German and English dimensional adjectives. As was the case with Bierwisch (1967), Lyons (1977), and Lafrenz (1983), studies that Durrell referred to, Durrell's data originated from introspection. The introduction to the article conveyed a rather formal and linguistically philosophical impression, while the analysis itself lacked formal notations and suggests refreshingly free and common-sense solutions. Durrell questioned the possibility of presenting the result of the contrastive study in a strictly formalised analysis based on components, since the dimensional

adjectives of the two languages show such an irregular structure. My impression is that if this study, which was written in German, had been published in English, it would have made a greater impact on later studies treating HIGH, WIDE and LONG. It would have been particularly interesting to see what comments it would have elicited from Athanasiadou 2001, since she, too, treated English *broad* and *wide*. Her results were at some points rather close to Durrell's.

In the nineties and early years of the new millennium, a handful or two studies appeared that dealt with dimensional adjectives. These were Stolz (1996), Geckeler (1997), Wienold and Rohmer (1997), Weydt and Schlieben-Lange (1998), Linde-Usiekniewicz (2000, 2002), Rakhlina (2000), Athanasiadou (2001) and Goy (2002). By far the most detailed are Stolz (1996) and Linde-Usiekniewicz (2000).

Stolz (1996) gave an account of the dimensional adjectives of Yucatec Maya. Although her dissertation was written at the Cognitive Anthropology Research Group at the Max-Planck-Institute for Psycho-linguistics, Nijmegen, I would say that Stolz worked in the tradition of Bierwisch (1967) and Lang (1989). She reconciled this perhaps illusionary conflict by stating that Lang (1989) is based on implicit function-based assumptions and that it presupposes that spatial cognition is an easily identifiable functional domain of human cognition (Stolz 1996:6). Lang's (1989) influence became clear in the presentation of Stolz's results. These cited combinatorial classes of dimension terms in Yucatec, thus showing what combinations of adjectives determine what object type (for example, *chowak* 'long', *kòoch* 'wide' and *táam* 'deep' may refer to a river while *chowak* 'long', *kòoch* 'wide' and *piim* 'thick' may refer to a wall), an approach which, in my view, has a strong, underlying structural dimension.

Linde-Usiekniewicz (2000, 2002) studied Polish dimensional adjectives and other dimensional terms. She worked within the framework of componential semantic analysis, thus her methodology belonged to structural linguistics. Her work took its starting-point in related research, not only from the western world (including East Germany where Bierwisch and Lang used to live and work) but also work which had been published in the Slavic languages and which had been (and to some extent still are) more or less inaccessible for the international community because of language barriers. This point of departure is somewhat unique among the studies on dimensional adjectives that I have come across so far. Linde-Usiekniewicz claimed that it is not possible to draw valid conclusions on dimensional assignment without taking both dimensional adjectives and nouns referring to dimensions into account. Linde-Usiekniewicz studied lexical clusters where both adjectives, adverbs and nouns were included. According to her results, HEIGHT, DEPTH, and LENGTH have a sense of orientation, while WIDTH and THICKNESS lack this meaning. For DEPTH, a sense of allowing the presence of another object along the line of vision is included, while HEIGHT and LENGTH lack this sense. For WIDTH and THICKNESS, this aspect is not

relevant. Further, HEIGHT is associated to verticality, while DEPTH and LENGTH are not. Again, this feature is not relevant for WIDTH and THICKNESS. Finally, WIDTH, but not THICKNESS, is connected to the concept of surface, while this is not relevant for HEIGHT, DEPTH or LENGTH (Linde-Usiekniewicz 2000).

Rakhilina (2000) studied Russian dimensional adjectives. She compared a view, which takes its starting-point in different topological types (such as surface, volume, container) to a more traditional view, which takes its starting-point in shapes according to the Euclidean geometry. The author claimed that embracing the topological types rather than the geometrical ones in the analysis would yield greater understanding and a neater description of the complex set of qualities which are associated with various object types. Further, Rakhilina stressed the functional aspects of objects in terms of the interaction between human being and object, which she referred to as anthropocentrism. Without this view, the topological types are not meaningful for the purpose of the study, since many objects appear to have similar shapes (such as a bed and a shelf), but are described differently according to how they are used. Her works belonged within the cognitive framework.

Wienold and Rohmer (1997) was a typological study, encompassing 31 languages. The authors introduced an implicational scale concerning the dimensional adjectives across languages. The scale was two-fold, since one concerned the concepts of SIZE, THICKNESS and WIDTH and another concerned SIZE, LENGTH, DISTANCE, DEPTH and HEIGHT. Wienold and Rohmer assumed that all languages have expressions for SIZE and LENGTH. This means that it is impossible to say which one of these categories should appear first on the scale. Wienold and Rohmer had nevertheless chosen to let SIZE have priority, since expressions of SIZE theoretically can be used to cover the concepts of LENGTH, but not *vice versa*. The implicational scale for thickness and width read SIZE<THICKNESS<WIDTH. The other implication scale read SIZE<LENGTH<DISTANCE<DEPTH<HEIGHT. A term to the right of another term means that the left term may cover the concept expressed by the right term. Thus, the terms expressing LENGTH across languages may also cover the concepts of DISTANCE, DEPTH and HEIGHT. Further, the scale should be understood as: if a language has a term for HEIGHT, it will also have a term for DEPTH. If a language has a term for DEPTH, it will also have a term for DISTANCE, and so forth.

Weydt and Schlieben-Lange (1998) suggested a system regarding the German dimensional adjectives. The paper introduced the idea that speakers construct images of three-dimensional objects in subsequent steps. According to the authors, three-dimensionality should be broken up into two-dimensionality and a third dimension. For example, a mat in the first step is comprehended as two-dimensional (where the two dimensions that are parallel with the floor are counted), then as a second step, the mat is comprehended as having a third dimension (the vertical one). Alternatively,

three-dimensionality can be broken up into one-dimensionality and then, after the perspective has changed, the construction of a two-dimensional image begins anew. An example to illustrate this would be a pencil, for which the maximal dimension dominates the first step, while the two minimal dimensions are not constructed until the second step. The adjective *tief* ‘deep’ can, together with *hoch* ‘high’ and *lang* ‘long’ be used for the first dimension. The work seems rather context-independent in terms of its relationship to earlier research, although Bierwisch (1967) and Lang (1989) were referred to.

As already has been mentioned, Athanasiadou (2001) studied English *broad* and *wide*. The author made use of dictionaries and corpora to collect data. Athanasiadou explored the fuzzy boundaries regarding the preference for one dimensional adjective instead of another, and described the semantics of the concept WIDTH as a network that includes both spatial and metaphorical senses. Nodes in the network are linked to each other with one node constituting the prototype. For WIDTH, the node MEASUREMENT achieved this privileged status. Her use of the schematic network was in accordance with Langacker (1987) and overall, her work belonged to the cognitive linguistic framework.

Finally, Goy (2002) studied Italian *alto* ‘high/tall’ and *basso* ‘low/short’. Her starting-point was that an account of lexical semantics must make reference to the link between language and perception. She associated the use of the adjectives to shape in particular, making use of Marr (1982), a study which presented a model for interpreting visual information concerning three-dimensional objects, as well as Landau and Jackendoff (1993), where the conceptualisation of certain objects as surfaces and “negative parts” (holes, cavities) was discussed.<sup>3</sup> Goy’s data originated from elicitation tasks, where informants were asked to rank how good or bad certain combinations were, such as *alto* ‘high/tall’ combined with *torre* ‘tower’. Her test was similar to the test used by Dirven and Taylor (1988). Goy’s work was a linguistic contribution to cognitive science. She discussed linguistic models in terms of artificial intelligence and computational treatment. To my knowledge, dimensional adjectives have not been treated in cognitive science before, and Goy’s concluding remarks on future research seems very promising.

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<sup>3</sup> The results Goy refers to can also be found in Jackendoff and Landau (1991), which has influenced my work, see especially Chapter 5 on *bred* ‘broad/wide’ and Chapter 7 on *tjock* ‘thick’.

### 3 Theoretical assumptions

My study was written within the cognitive linguistic framework. Cognitive linguistics involves a functional approach to grammar and semantics. The language is comprehended as an integrated part of our cognitive abilities. There is no specific boundary between semantics and pragmatics, but a gradation. Pre-conceptual, pre-linguistic experiences form the foundations for semantics. An example of such an experience is gravity, which we are exposed to and whose impact on ourselves and on objects around us we learn from very early age.

A comprehensive and self-assured introduction to cognitive linguistics is offered in Ungerer and Schmid (1996). Swedish readers may refer to Strzelecka (2003) for an extensive overview of cognitive semantics.

In the present chapter, I wish to draw attention to some aspects of cognitive linguistics that are particularly relevant for my concerns. In certain cases, disagreement within the framework occurs on terminology or on the comprehension of various concepts. Here, I wish to point out the separate suggestions offered by the theory as well as stating which version I prefer, for reasons which I will indicate below.

The cognitive linguistic metalanguage for discussing meaning includes semantic primitives. There is more than one model of how these semantic primitives should be regarded and the various models have different names for the primitives. Wierzbicka (1995) proposes a natural semantic metalanguage, where around 50 words are seen as semantic primitives. These are irreducible, which means they are not describable in terms of anything more fundamental, and they form the basis for explaining all other words. Examples of semantic primitives are *I, you, someone, think, say, want, feel, big, small*. Langacker discerns three types of basic conceptual entities. The first one is referred to as minimal concept in a particular domain. One such domain is space, and a minimal concept within this domain is a line. The second type is called experientially grounded conceptual archetypes. Examples are physical object, spatial motion of an object, a physical container and its contents, a whole and its parts, seeing something, holding something, and a face-to-face social encounter. The third type of notion is not tied to any particular domain, hence freely applicable to any domain. Here, entities such as point vs. extension, change vs. continuity, contact, inclusion, group are included. (Langacker 2000:9, 24, 171–172, Langacker to appear.) Finally, Lakoff and Johnson (1980) suggests image schemas as basic notions (irreducible notions). An image schema is abstracted from pre-conceptual bodily experience (thus grounded in the body). Examples of image schemas are Vertical Axis, Container, Path, Surface, Object,

Collection, Scale, and Blockage, to mention only a few. I have chosen to work with image schemas (Lakoff and Johnson 1980) as basic notions. The choice is motivated by the fact that the image schema model encompasses several notions, such as those just mentioned, which are central for describing the dimensional adjectives, while Wierzbicka's semantic primes would demand a further deconstruction of, say, the notion of surface, in order to complete the analysis. Explaining what a surface is in terms of *something, part of* etc. is not something I consider to lie within the scope of my study. Langacker's basic conceptual entities, on the other hand, are divided into three types. Distinguishing like this does not seem necessary for my work. And it can be assumed that his experientially grounded conceptual archetypes are, at least from my point of view, rather close to the image schemas presented by Lakoff and Johnson.

In semantics, categorisation plays a crucial role. A lexical item is comprehended as corresponding to a category. Defining the lexical item therefore means characterising the category. The classical model, also called the Aristotelian model, defines a category by a set of criterial attributes, which are necessary and sufficient conditions for category membership. An alternative to this model, offered by cognitive semantics, is the prototype model. Wittgenstein (1958) introduced the idea that certain lexical items are best understood as exhibiting family resemblance. Wittgenstein studied the noun *game* and found that the classical model did not give a satisfying account for its meaning. Instead, he wanted to relate the different senses of *game* to each other in a network, resembling the way members of a family share traits. Rosch and Mervis (1975) developed the idea of family resemblance, by adding, among other things, centrality to the model and thus gave one or several entities in the network the privileged status of being a prototype. Other members of the category may be closer to or further away from the prototype(s). All members need not share certain significant qualities. Category membership can be a matter of degree, and the boundaries of the categories may be fuzzy. The category is formed around the typical instances (the prototypes). The perceived resemblance of other members to the prototype constitutes the basis for their membership of the category. (Rosch 1975, Lakoff 1986, Brown 1990, Tversky 1990.) Ungerer and Schmid (1996) points out that there are two ways of understanding the notion of prototype. On the one hand, the prototypical member may be understood as the "best" member, the most typical one, the clearest case of category membership, a central or typical member, or the most representative example of the category. On the other hand, the prototype may be defined as a mental representation, a kind of cognitive reference point (Ungerer and Schmid 1996:39). My approach is closer to the latter suggestion.

Rosch and Mervis developed the prototype theory while working with nouns for furniture, vehicles, and fruit, among other things. Another article, Rosch (1975), studied the category *bird*, and found that a robin was the

most prototypical member, while members such as ostrich and penguin were rather peripheral. Rosch's work was performed in California in the United States, where students, presumably from the middle class, participated in ranking tests that formed the basis for the analysis. It can be added that in other parts of the world, a robin is probably not the most prototypical member, since geographical and cultural aspects influence what type of object forms the prototype.

My study treats adjectives. Ungerer and Schmid (1996) questions whether properties like 'tall' can be considered a cognitive category comparable to object categories. Possibly, it represents another kind of cognitive experience, which would include, for example, sensation or smell. The properties must, in order to belong to a cognitive context, be comprehended as representing cognitive phenomena, based on sensory events, which are derived from our immediate interaction with objects, other people or our own bodies. For dimensional properties, Ungerer and Schmid (1996:107–108, 127) proposes that basic experiences, encoded as image schemas, are fundamental.

Lexical items, to which several related senses can be attributed, are regarded as exhibiting polysemy. A polysemous lexical item corresponds, not to a single category, as was described above, but to a complex category. As soon as the various senses of a lexical item cannot be predicted from one single structure (such as a prototype), the lexical item is regarded as polysemous (Langacker 1987:370). In a complex category, which has been described by Lakoff (1987:83) and by Langacker (1987:377–386, 2000:101–103), the relations between the various members are defined, while this is not the case in a member category of the simple kind, where one or several members are prototypes. According to Langacker, the link between the various members may be characterised as full schematicity, partial schematicity, or a bi-directional relationship. The model is referred to as the network model. The network model encompasses a set of nodes (category members), which correspond to structures of any kind. (Langacker 1987:377–386). Lakoff (1987) proposes a radial model, where one case is central, and the other cases are conventionalised variations of this case, where the variations cannot be predicted by general rules. An example of a radial structure is the category *mother*, where the central case stands for a mother "who is and always has been a female, and who gave birth to the child, supplied her half of the child's genes, nurtured the child, is married to the father, is one generation older than the child, and is the child's legal guardian" (Lakoff 1987:83), as opposed to a stepmother, an adoptive mother, etc. The Lakoffian and the Langackarian models share certain common features, and for my purposes, the difference between them is not of great importance. I employ a simplified version of Langacker's network model where the relations between the nodes are not specified. Further, I prefer the term "case" (from Lakoff) to the term "node", since I consider it less opaque. As an example, the adjective *djup* 'deep' is

considered a complex category, and analysed as a network model. *Djup* ‘deep’ when describing a vertical dimension is seen as the central case, and *djup* ‘deep’ when describing a horizontal dimension is seen as another case. Each case of the network model corresponds to a simple lexical category. The central case of *djup* ‘deep’ corresponds to a simple category where some uses of *djup* ‘deep’ are prototypical, such as *djupt hav* ‘deep sea’, and others are peripheral, such as *djupa spår* ‘deep traces’.

Cruse (1990) points out that there are two different perspectives within prototype theory. According to the first perspective, certain members of a category are prototypical, while according to the second perspective, certain characteristics or features of a category are prototypical. The risk when applying the latter perspective is, according to Cruse, that the analysis may resemble feature analysis within classical semantics so that the fundamental idea of an alternative description is lost.

Cruse’s first perspective seems to correspond more to a simple category, where members are prototypical, while his second perspective can rather be comprehended as corresponding to a complex category, where characteristics, rather than members, are central. My approach is that the border between a simple and a complex category need not be strict. On the one hand, characteristics of a certain use, such as the characteristics of the central case of mother, depicted by Lakoff (1987), seem to have a conscious cognitive bearing on why we understand it as central or belonging to the outskirts (we may articulate such characteristics). On the other hand, these characteristics are intricately interlinked with the referent, for which such a description is adequate. Following this credo, my work is a combination of the two perspectives pointed out by Cruse. First, I list certain characteristics which I bind more firmly to the adjective itself. An example is *djup* ‘deep’. According to my analysis, the adjective describes a vertical extension. The vertical extension is considered as measured from the top of the object to the bottom of the object. Further, *djup* ‘deep’ refers to internal dimensions. This list of characteristics corresponds to Cruse’s second perspective. It operates on the level of complex category. The given description concerns the central case in the network model of *djup* ‘deep’. Then, I point out that the adjective *djup* ‘deep’ preferably combines with certain nouns, and discuss what type of objects these nouns refer to (as mentioned by Ungerer and Schmid 1996:107, the semantics of adjectives are intertwined with the related objects they are used to describe). I do this in terms of certain qualities that these objects exhibit, such as functioning as containers, having an open top, consisting of water, or having a bottom that is less accessible than the top, etc. Here, certain uses (*djupt hav* ‘deep sea’, *djup sjö* ‘deep lake’) correspond to members of the category. *Djup sjö* ‘deep lake’ is a member, and by this, I do not mean the description of a single, specific lake but a member which corresponds to a mental representation or cognitive reference point, as suggested by Ungerer and Schmid (1996:39). The member *djupt hav* ‘deep sea’ is considered a prototypical member, while

*djupa spår* ‘deep traces’ is considered peripheral. This approach is considered a blend of Cruse’s two perspectives. It both includes members of the category, and characteristics of the members. The description operates both on the level of simple category, where some members are prototypical, and some are peripheral, and also on the level of complex category, where some cases are central and others are non-central. Thus, the analysis as a whole combines Cruse’s two perspectives.

My analysis suggests that some dimensional adjectives, such as *tjock* ‘thick’ and *djup* ‘deep’, should be considered polysemous, whereas for others, such as *hög* ‘high’, this is doubtful. As has already been mentioned, a polysemous lexical item corresponds to a complex category, while a monosemous lexical item corresponds to a simple category. The issue of polysemy has been intensively debated within cognitive linguistics, see among others Tuggy (1993), Geeraerts (1993), and Croft (1998). I have assumed a rather independent position in relation to the discussion, which means that I do not treat polysemy as a theoretical issue, but rather adopt the term to discern various main senses of the adjectives. For my purposes, I have constructed a quite simple test, in order to test whether a certain adjective is polysemous. The test is as follows: If two referents may be compared in a comparison phrase using the adjective in its comparative form, the adjective is not polysemous, but if the comparison is odd, the adjective is polysemous. *?Hålet är djupare än hyllan* ‘the hole is deeper than the shelf’ is not well-formed, thus, the two senses of *djup* ‘deep’, where one indicates a vertical extension, the other one a horizontal extension, have a polysemous relation. *Huset är högre än molnet* ‘the house is higher than the cloud’ is acceptable, thus, the two senses do not have a polysemous relationship. I am aware that the theoretical issues of polysemy would permit a far more detailed and elaborate discussion in relation to the dimensional adjectives, but this is beyond the scope of my study.

Within cognitive semantics, the notion of embodiment has been discussed and developed in different directions. Lakoff (1987) describes embodiment as the idea that certain concepts are not understood intellectually, but rather used unconsciously and automatically (Lakoff 1987:13). Critics have pointed out that such a definition of embodiment focuses too strictly on what goes on inside one’s own body, neglecting sociocultural aspects as well as the impact that objects outside our body may have on our comprehension of the world (Zlatev 1997, Sinha and Jensen de López 2000). Sinha and Jensen de López (2000) claims that the embodiment thesis has failed to pay sufficient attention to the importance of culture and society in human cognition. This conflict can be traced back to the Sapir-Whorf hypothesis, or the linguistic relativity hypothesis (Sapir 1921, Whorf 1956), which has been subject to discussion during the latter part of the twentieth century. Sinha and Jensen de López study how infants related to the prepositions IN, ON, and UNDER in Danish and San Marcos Tlapazola Zapotec, and also how infants related to actions concerning

manipulating objects regarding spatial relations. The objects involved differed for the two language groups. The Danish children were given wooden building bricks and cups, while the Zapotec children received grains of corn and woven baskets. The results from the language comprehension experiment show that while Danish children had a bias towards putting the first object IN the other object, maintaining its upright, canonical position (even if they were asked to put the object ON or UNDER the other object), the Zapotec children showed no such bias. In Zapotec, the same lexical item means IN and UNDER. The lexical item, which is a BodyPart Locative, can be translated as “stomach”. Further, the infants were encouraged to imitate a certain action, performed by the experiment leader. The action consisted of putting the first object IN, UNDER, or ON another object. In the action imitation experiment, again, the Danish children showed an IN-bias, whereas, again, the Zapotec children showed no such bias. The fact that the Zapotec children had no bias towards putting the grain IN the basket was unexpected. Sinha and Jensen de López explain the finding by pointing out that the woven baskets are commonly used in “inverted” orientation (upside-down) for example when covering tortillas and other food items. Further, the baskets are stored in inverted orientation, and children use the baskets, again in inverted orientation, in games, for example when catching chickens. Sinha and Jensen de López wish to extend the thesis of Embodiment. They argue that, in the light of how the Zapotec performed in the action-imitation experiment, the thesis of Embodiment should be extended in order to include not only how the body functions, but also how artefacts are used in a cultural-specific manner. In other words, it is not only how our body functions that influences our cognition and language, but also how objects are manipulated within a specific culture.

The present study is closer to Sinha’s and Jensen de López’s (2000) view. It turns out that for one of the adjectives, namely *djup* ‘deep’, the image schema Container is fundamental. Thus, objects, which are described as *djup* ‘deep’, such as *djupt vatten* ‘deep water’ and *djup tallrik* ‘soup plate’ often function as containers. However, I do not regard this notion of containment as necessarily derived from a bodily experience of our bodies being containers, as proposed by Lakoff and Johnson (1980). Like Sinha and Jensen de López (2000), I assume that artefacts (such as cups, glasses, etc.) outside the body may be as fundamental, or even more fundamental, to our understanding of containment.

This plays an important part in my work, since I omit most uses of adjectives concerning the human body. Thus, uses such as *lång människa* ‘tall human being’ or *djupa ögon* ‘deep eyes’ are excluded. Results from the elicitation test indicate that for the majority of the adjectives, a prototypical use does not involve the adjective combining with a noun referring to the human body, thus my omission of such uses from the data seems justifiable. However, for two adjectives, *tjock* ‘thick/fat’ and *smal* ‘narrow/thin’, results

from the elicitation test show that the human body is strongly associated with the adjectives. Therefore, in order to give a fair account of the semantics of these adjectives, uses, where *tjock* ‘thick/fat’ and *smal* ‘narrow/thin’ describe the human body, have been included in the study.

Thus, in my work, there is an underlying assumption that the way the human body is referred to by dimensional adjectives (possibly with the exclusion of *tjock* ‘thick’ and *smal* ‘narrow/thin’) goes back to how objects outside the body are referred to, and not the other way around, the latter view probably being less controversial.

Further, as indicated in Chapter 1 (Background and purpose), I study dimensional adjectives as used in a spatial, non-metaphorical sense. Since the image schemas should be derived from our bodily experience, or from physical experience grounded in the body’s interaction with other physical objects, the spatial sense of a lexical item is considered basic in comparison to metaphorical senses. Such a comprehension is probably considered as plausible also outside cognitive linguistics, which makes the statement uncontroversial.

I will now leave issues that are specific to the cognitive framework and discuss some other theoretical assumptions.

As pointed out by Willners (2001), the term “antonymy” was coined in the nineteenth century to describe oppositeness of meaning. But antonymy does not refer to the maximum degree of difference in meaning between two concepts. Antonymy is rather similarity in all respects but one (Cruse 1986:197). As stated in Chapter 1 (Background and purpose), I question whether adjectives such as *hög* ‘high/tall’ and *låg* ‘low’ really exhibit an antonymous relation. The doubts have successively been confirmed throughout the study. Moreover, some of the Swedish dictionaries put *hög* ‘high’ in an antonymous relationship not only to *låg* ‘low’, but also to *bred* ‘broad/wide’, which indicates a confusion regarding the aspect of the adjective concerned. The problem is that antonymy is often defined by examples, where dimensional adjectives rank among the top-ten (Ljung 1974). If dimensional adjectives are not antonymous, what is left of antonymy? Rather than offering a full-fledged discussion on the theoretical issues of antonymy, my study should be regarded as indicating arguments for a more complex image.

The study of dimensional adjectives requires study of the organisation of space. I will need terms such as vertical plane, horizontal plane, dimension, axis, canonical orientation, inherent orientation, and shape. Verticality/Vertical Axis is regarded as an image schema (Johnson 1987:xiv), as is Up-down and Front-back (Lakoff 1987:283). As such, these are basic notions which need not (possibly cannot) be explained any further, and therefore, I leave them without discussion.

There is one vertical axis, parallel to the force of gravity, and two horizontal axes, which are parallel to the ground surface. The two horizontal axes together form a horizontal plane. There are also two vertical planes,

one extending in the left-right direction and one in the front-back direction. (Clark 1973:32–33) The separation between the two vertical planes, however, is not central for my study.

Moving on to shape, Gestalt psychology (see Boring 1942, 1950) as well as more recent studies in visual cognition (see among others, Marr 1982, Tarr and Pinker 1985, Biederman 1987) provide arguments for believing that objects are perceived holistically. The Gestalt principles permit everyday objects, which are often complex, diffuse, and incomplete, to be perceived as wholes, by principle of proximity (single elements with a small distance between them are perceived as being related), principle of similarity (individual entities with similar appearance are seen as a common group), principle of closure (perceptual organisation is anchored in closed figures), and principle of continuation (even if entities have a few interruptions, they may be perceived as wholes). Theories of visual cognition have refined these statements and developed ideas on issues such as how we understand the shape of an object, even if we only see one side of it. In the present study, it is assumed that human perception is capable of discerning certain shapes, and further that it is capable of idealising object to certain geometrical shapes such as spheres, cuboids, cylinders, and circles.

The term dimension is used as an extension of an object, which is aligned with the vertical axis, or one of the two horizontal axes. It can be argued that the dimensions of an object need not be aligned with axes of the surrounding three-dimensional space. Such an understanding of the object means an unoriented description. However, when placed on the ground or somewhere else, for instance when stored, etc., objects are generally perceived and understood as assuming a position with the dimensions aligned with the vertical and the horizontal axes. Dimensions must always be understood as approximations, since very few objects have such a regular shape that each dimension is easily discernible or measurable.

Geometric configurations may have one, two or three dimensions. A one-dimensional unit is a line, an example of a two-dimensional unit is a surface and an example of a three-dimensional unit is a cube. Objects in the real world have three dimensions (except light projections), but parts of an object may have fewer, such as the top of a table forming a two-dimensional surface. Further, objects may be idealised to two or one-dimensional units, such as a three-dimensional lawn is comprehended as a two-dimensional surface (Herskovits 1986, Jackendoff and Landau 1991).

An object, which has an orientation which is “correct” or most customary, or necessary if it is to serve a certain purpose is assumed to have a canonical orientation (see among others Clark 1973). One example is a cup, which has to stand upright to keep the coffee inside. Other objects have inherent orientation. Such objects have text or pictures, and the vertical axis is maintained, no matter how the object is turned or held (see among others Lang 1989).

An object's largest dimension is referred to as the maximal dimension. If there is a large difference between the two greatest dimensions and the minimal one (such as in a bedcover), they are referred to as its main dimensions (see among others Bierwisch 1967).

An object may have a canonical vertical orientation. This means that the object has a side or an end, which is normally comprehended as its top. An example would be a flagpole, where one end is the top. If the object has a canonical horizontal orientation, not only is one side normally perceived as the top, but, another side may also be regarded as the front. One example is a stove.

Furthermore, an object may have a canonical orientation in which its main dimensions are extended in the horizontal plane. One example of such an object is a road.

## 4 Data and methodology

As indicated in Chapter 1 (Background and purpose), this study deals with the spatial, non-metaphorical meanings of the Swedish dimensional adjectives *hög* ‘high/tall’, *låg* ‘low’, *bred* ‘broad/wide’, *smal* ‘narrow/thin’, *vid* ‘broad’, *trång* ‘narrow’, *tjock* ‘thick’, *tunn* ‘thin’, *djup* ‘deep’, *grund* ‘shallow’, *lång* ‘long’, and *kort* ‘short’.

The adjectives have been selected from a greater set of the most common dimensional adjectives in Swedish. In descending order, the most common dimensional adjectives are *stor* ‘big’, *hög* ‘high/tall’, *lång* ‘long’, *liten* ‘small’, *små* ‘small’, *kort* ‘short’, *lille* ‘little’, *låg* ‘low’, *vid* ‘broad’, *bred* ‘broad/wide’, *djup* ‘deep’, *grov* ‘coarse/thick’, *tunn* ‘thin’, *trång* ‘narrow’, *smal* ‘narrow/thin’, *tjock* ‘thick’, *mager* ‘lean’, *fet* ‘fat’, *rymlig* ‘spacious’, and *grund* ‘shallow’ (Allén 1971).

*Stor* ‘big’, *liten* ‘small’, *små* ‘small’, and *lille* ‘little’ have been excluded from the study. These adjectives rather describe an overall impression of an object. I have found the relation between the meaning of these adjectives and the specific dimensions they refer to less interesting than the corresponding relation between the meaning of the remaining dimensional adjectives and the specific dimensions concerned. *Grov* ‘coarse/thick’ has been excluded since this adjective has several related senses, of which only one is a dimensional. My own linguistic intuition also tells me that the adjective *tjock* ‘thick’ is more frequently used in its dimensional sense than *grov* ‘coarse/thick’. *Mager* ‘lean’ and *fet* ‘fat’ have been excluded since these adjectives mainly refer to the human body. I have considered *rymlig* ‘spacious’ too uncommon. Certainly, it is more frequent than *grund* ‘shallow’, but the latter has been incorporated mainly since it is commonly regarded as the antonym of *djup* ‘deep’.

Not only the positive form, but also inflected forms have been considered. For *bred* ‘broad/wide’, these forms include *brett* (positive neuter), *breda* (positive plural + positive weak form), *bredare* (comparative), *bredast* (superlative), *bredaste* (superlative weak form), and for the other adjectives, the corresponding forms have been included. For *vid* ‘broad’, an exception has been made concerning the forms *vid* and *vidare* regarding uses from the corpus (see section 4.1.1). The adjective *vid* has been restricted to uses where it occurs in a phrase together with the indefinite article *en* ‘a/an’, as in *en vid båge* ‘a wide arc’. Examples like this have been collected. The reason for the partial exclusion of *vid* is that in this form, the dimensional adjective has the very frequent homonym *vid* ‘at’, which the search engine cannot separate from the dimensional adjectives.

Correspondingly, the dimensional adjective *vidare* has a related sense *vidare* ‘further’, which is more frequent than the dimensional sense.

When translating the Swedish adjectives into English, Norstedts stora svensk-engelska ordbok is the dictionary that has been used. If the adjective has been translated with another lexical item than Norstedts suggests, this is commented upon in the beginning of the analysis in a footnote.

## 4.1 Data

As was described in Chapter 3 (Theoretical assumptions), I have omitted most uses referring to the human body, body parts, the body of animals, and animal body parts. Furthermore, I have omitted most uses referring to clothes and shoes since related research (Ström 1997) indicates that these items are described in analogy to how the body is described. This would imply that objects like clothes are described analogically to descriptions of the body, which, in its turn, would be described in analogy to how objects outside the body are described. Thus these objects would form a “third generation” of the pattern, the first generation being objects outside the body and the second generation the body itself.

In order to collect the data, four kinds of sources have been considered. The first source is a corpus, from which examples have been systematically collected. Native speakers, participating in an elicitation test, designed for the study, form the second source. The third source includes dictionaries, whose articles on the dimensional adjectives have been used. Finally, the fourth source is my own linguistic intuition, as a native speaker of Swedish. Occasionally, natural observations from spoken language have been included, as well as information from native speakers other than myself. The two latter phenomena have not been collected in any systematic way. In the text, data from the elicitation test is separated from data gathered from native speakers, on a more informal basis, by using separate terms: The former data is always referred to as “the elicitation test” and the latter as originating from “native speakers”, although the participants of the elicitation test, needless to say, are native speakers as well. Finally, the term “native speaker intuition” always refers to my own linguistic intuition.

### 4.1.1 The corpus

Two corpora have been used for the corpus-search, B76–77 and B80–81, both sections of the web-based Språkbanken (the Bank of Swedish).<sup>4</sup> The two corpora together include over 9 million tokens, and around 300 000 types. The size of the corpora is considered large enough to provide a valid representation. The corpora concern written language.

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<sup>4</sup> <<http://spraakbanken.gu.se>>

Out of the 9 million tokens, I have gathered 5566 examples to form my own corpus, from now on referred to as “my corpus” or “the corpus”. These examples include dimensional adjectives, in a spatial, non-metaphorical sense, where most adjectives referring to the human body, body parts, clothes or animals have been omitted. This partial exclusion has already been touched upon, and will be commented in detail later on in this section.

Apart from the dimensional adjective, other related lexical items, such as verbs (*breda ut* ‘spread out’ in relation to *bred* ‘broad/wide’) and adjectives in adverbial uses (*högt upp* ‘high up’ in relation to *hög* ‘high’), have been occasionally included to shed more light on the semantics of the dimensional adjectives.

The two original corpora have been collected from fiction. The first corpus, B76–77, comprises novels published by the largest Swedish publishing company, Albert Bonniers Förlag AB, from 1976–1977. Around half of the novels were originally written in Swedish, while the other half were translations, mainly from English. The second corpus, B80–81, comprises novels from the same publishing house, published 1980–1981. The latter corpus includes texts, which were mainly written in Swedish initially. Both high-prestige literature and more popular fiction can be found in the two corpora. All the translations are the work of professional, native Swedish-speaking translators. Related research indicates that translated fiction shows less innovation compared to its source (Toury 1995:273). It can be assumed that translated fiction is more standardised, also when compared to fiction which has not been translated. Hence it can be supposed that the use of dimensional adjectives in the translated fiction is closer to standard use, while the use of dimensional adjectives in fiction originally written in Swedish may be more creative or innovative. I have not distinguished the translated fiction from fiction originally written in Swedish.

In addition, some of my corpus examples, along with the constructed examples and natural observations, have been translated from Swedish to English by a professional translator engaged for this particular purpose. In some cases this means that an example was originally written in English, then translated into Swedish by a professional translator engaged by the publishing company Bonniers, then gathered by me via the original corpus (B76–77) or (B80–81), and finally translated “back” into English by another professional translator at my behest. This means that the English version of the examples in my study may deviate from the English original version.

In my work, I have applied so-called total accountability in relation to the corpus, which means that all uses, even those which are uncommon, or which go against my linguistic intuition are considered in the analysis (Johansson 1985).

The texts provide a rich use of dimensional adjectives in a non-metaphorical sense. They include descriptions of both indoor and outdoor

environments, as well as detailed accounts of the appearance of various objects. In (1), a passage containing several dimensional adjectives is given.

- (1) Det *stora rummet* gör ett tungt och mörkt intryck, fastän ljuset flödar in genom de bägge fönstren. Det gör ett överlastat intryck. Där är så många möbler. *Möblerna* är *stora* och mörkbruna med snidade träkarmar och ben och lister. Den *stora mattan* är utrullad. Två *mindre mattor* ligger på golvet mot fönstren. En *stor stenkruka* står på en träpedestal och i krukan växer en yvig, långbladig, palmliknande växt. Bredvid den står en korgstol med *hög*, flätad *rygg*. En *tjock*, röd *filt* är utbredd på sisten och mot ryggkarmen. Filten är broderad med gula och blåa blommor och gröna slingor av blad och stjälkar. En kudde av samma material hänger vid övre delen av ryggstycket. Framför stolen, mellan stolen och fönstret, står en *stor bälgekamera* på tre spetiga ben. En svart ylleduk hänger som ett dok över kameralådan. Ingen människa syns till i rummet. (B80–81) ‘The large room gives a heavy, dark impression, though the light is streaming in through both windows. It gives an overburdened impression. There are so many pieces of furniture. The furniture is large and dark brown with carved wooden arms and legs and edging. The large rug is rolled out. Two smaller rugs are lying on the floor towards the windows. There is a large stone jar on a wooden pedestal and in it is a bushy, long-leaved, palm-like plant. Next to it is a wicker chair with a high, plaited back. A thick, red blanket is spread over the seat towards the back of the chair. The blanket is embroidered with yellow and blue flowers and green strands of stems and leaves. A cushion of the same material is hanging over the upper part of the back of the chair. In front of the chair, between the chair and the window, is a large folding camera on three spindly legs. A black woollen cloth hangs like a veil over the camera box. No one can be seen in the room.’

The text “(B80–81)” at the end of the Swedish text in the example refers to the corpus, from which the example has been collected. In the example, both the adjective and the relevant noun are in italics. The adjective may either have an attributive relation to a noun (den *stora mattan* ‘the large rug’), or it may function as predicative in relation to a noun (*möblerna är stora* ‘the furniture is large’). An attributive adjective is semantically more strongly tied to the noun than predicative adjective in that sense that the attributive adjective tends to express essential or functional properties, while the predicative adjective invokes qualities which are not essential (Lundbladh 1988, Taylor 1992). It can be assumed that there is greater acceptance of certain combinations of adjective and noun if the adjective has a predicative relation to the noun. The fact that predicative adjectives are part of the study makes it plausible that combinations showing less restricted combinability occur in the corpus. I have made no distinction between attributive adjectives and those used predicatively.

Furthermore, the texts of the corpora have been considered contemporary. Today, it is 23–28 years since the novels were published. The dimensional adjectives are regarded as rather stable lexical items, compared to slang or technical language vocabulary used within certain sectors, which ages quickly (such as information technology). To a limited extent,

examples from other corpora, such as press 95–99 (also Språkbanken (the Bank of Swedish)) and parole (Språkbanken (the Bank of Swedish)) have been incorporated.

I have worked with a window in which the context of the examples contains of 120 tokens, the balance being 50% of the context before the search word and 50% after the search word. This has been an adequate size, apart from a few cases when a larger context has been required to understand the example. The corpus makes it easy to extend the context.

When referring to an example, for reasons of clarity, I have included a full sentence, from a capital letter to a period. Sometimes, the example has contained more than one sentence in order to make it easier for the reader to understand. In other cases, a full sentence has been too long, and I have abbreviated the example to enable interpretation. In such cases, the example starts or ends with “[...]”. As has already been mentioned, in the present study, the excerpts from the two corpora (B76–77) and (B80–81) have been merged to form one corpus, referred to as “the corpus” or “my corpus”.

The aim of studying only the spatial, non-metaphorical sense of the adjective has required categorisation of what is spatial and non-metaphorical, and what is non-spatial and metaphorical. This categorisation process will be discussed below. Further, the aim to exclude uses referring to the human body, body parts, the bodies of animals, animals’ body parts and clothes has involved categorisation of what belongs to what group. This is also described below. For two adjectives, namely *tjock* ‘thick/fat’ and *smal* ‘narrow/thin’, uses referring to the human body, body parts, the body of animals and animals’ body parts have been included. The reason for this is that results from the elicitation test clearly show that the human body is strongly associated with the meaning of *tjock* ‘thick/fat’ and *smal* ‘narrow/thin’, and thus a fair account of the semantics of these adjectives need to incorporate these uses, see Chapter 3 (Theoretical assumptions). Moreover, for the adjective *vid* ‘broad’, uses referring to clothes have been included. This is because the meaning of *vid* ‘broad’ involves the function of passage. This function is prominent in clothes such as trousers, skirt, dress, and in parts of clothes, such as legs and sleeves. Unlike the use of other dimensional adjectives, when describing clothes *vid* ‘broad’ does not seem to be used in analogy to how the body is described (the body is seldom described as *vid* ‘broad’).

First, I will offer an overview of what types of uses have been included and what have been excluded.

Types of uses included are:

Uses referring to the appearance of inanimate objects, such as *ett långt bord* ‘a long table’.

Uses referring to movements, such as *höga språng* ‘high leaps’.

Uses including collocations, if otherwise applicable, which can be combined with a measure phrase, such as *en (5 meter) djup brunn* ‘a (5 metre) deep well’.

- Uses including dead metaphors, if otherwise applicable, such as *ett tjockt snötäcke* ‘a thick snow cover’.
- Uses, if otherwise applicable, including a vehicle which invokes a tenor through comparison, such as *varje rad apelsinträd, ungefär så lång som ett stadskvarter* ‘each row of orange trees, about as long as a town block’. Only the vehicle has been counted as belonging to the corpus, not the tenor.
- Uses, if otherwise applicable, including a reasonable comparison, where the two units compared to each other are of approximately the same size (see example above). Again, only the vehicle has been counted as belonging to the corpus.
- Uses referring to blood and other bodily fluids, such as *en tunn strimma saliv* ‘a thin streak of saliva’.
- Uses referring to jewellery, accessories and eye-glasses, such as *tjocka glasögon* ‘thick eye-glasses’.
- Uses referring to fabric, which is not part of clothes, such as *tjocka, ruggade ratiner* ‘thick, ruffled ratteens’.

#### Types of uses excluded are:

- Uses referring to the human body and body parts, such as *en lång kvinna* ‘a tall woman’. Note that for *tjock* ‘thick/fat’ and *smal* ‘narrow/thin’, these uses have been included.
- Uses referring to animal bodies and animals’ body parts, such as *lång svans* ‘long tail’. Note that for *tjock* ‘thick/fat’ and *smal* ‘narrow/thin’, these uses have been included.
- Uses referring to clothes, shoes, hats, and belts, such as *lång kappa* ‘long coat’. Note that for *vid* ‘broad’, these uses have been included.
- Collocations where a measure phrase cannot be included, such as *en (\*2 decimeter) djup röst* ‘a (20 centimetre deep voice). Note that neither for *tjock* ‘thick’ referring to gases and liquids, nor for *vid* ‘broad’, this test has been applicable.
- Non-spatial uses, such as *en lång arbetsdag* ‘a long working-day’.
- Metaphorical uses where a concrete noun is included, such as *en bred publik* ‘a wide audience’.
- Metaphorical uses including a noun referring to an abstract entity, such as *djupa känslor* ‘deep feelings’.
- Spatial uses, which are embedded in a metaphorical context, such as *ord blir till tunna flagor* ‘words are thin flakes’.
- Non-conventionalised metaphors, such as *den tunna skogsridån* ‘the thin curtain of forest’.
- Extended uses including comparisons, where it is not likely that the two units have a similar size, such as *glassportioner höga som katedraler* ‘portions of ice cream as tall as cathedrals’.
- Uses including constructions, where the subject is only expressed by *det* ‘it’ and its actual reference is unclear, such as *det är djupt* ‘it is deep’.
- Uses referring to fabric that forms part of clothes, such as *det tunna sidenet i kimonon* ‘the thin silk in the kimono’.

The separation between spatial and metaphorical sense has sometimes been difficult to maintain. In (2), a clear-cut case of spatial use is shown.

- (2) *Älven var bred såhär nära mynningen.* (B76–77) ‘The river was wide this close to the mouth.’

In (2), *bred* ‘broad/wide’ describes a concrete object. Lyons (1977) calls such an entity a first-order entity. A first-order entity should be located, at

any point in time, in three-dimensional space, and it should be publicly observable. Instead of separating between concrete and abstract objects, Lyons (1977) discerns three entity types, where the first-order entity corresponds to what is traditionally regarded as concrete objects, the third-order entity to what is traditionally regarded as abstract phenomena, while the second-order entity is an event, process or state-of-affairs which is located in time and which rather occurs or takes place, than exists (Lyons 1977:443). My examples mainly concern nouns referring to objects of the first-order, however, there is a group of nouns referring to body motion, such as *högt språng* ‘high leap’ and *vida gester* ‘broad gestures’. In (3), such an example is given. (4), on the other hand, shows an example which has been excluded from my corpus. It is considered a clear-cut case of a metaphorical use of the dimensional adjective.

- (3) Vore jag jakthund skulle rådjursguppandet, de retsamma, *höga sprången*, bringa mej till lindrigt vanvett: lusten att sätta efter skulle vara oemotståndlig. (B80–81) ‘If I were a hound the roe deer bobbing up and down, the provocation, the high leaps, would drive me a little mad: the urge to give chase would be irresistible.’
- (4) Det måste så klart vara skönt att slippa en massa *djupa känslor*, de tar så mycket av ens krafter men ger samtidigt ens liv det största innehållet. (B80–81) ‘It must of course be nice to be spared a load of deep feelings, they take so much of your energy but at the same time give your life its greatest meaning.’

I have regarded *hög* ‘high/tall’ as used in example (3) as a spatial use, while the entity *känslor* ‘feelings’ of example (4) is not of such a quality that spatial dimensions may be measured in a concrete manner. Rather, the adjective concerns phenomena such as intensity and sincerity.

The border between concrete object and abstract object is sometimes fuzzy and therefore so is the border between spatial and metaphorical senses as well. The examples concerning motion have a borderline-position, but have been included, as has already been mentioned.

Dimensional adjectives may be combined with nouns, referring to sound (*djup röst* ‘deep voice’, *hög ton* ‘high note’), to smells (*tjock stank* ‘thick stench’), and to colour/light/darkness (*djup färg* ‘deep colour’, *tjockt mörker* ‘thick darkness’). These nouns have been considered as referring to abstract entities, even if the entities are physical phenomena. Sound and smell would probably belong to Lyons’s (1977) second-order entities, while light and colour may constitute a borderline between first and second-order entity as far as I understand his description. The main test in my study has been whether it is possible to combine the noun with a measure phrase including the dimensional adjective. Physical motion, such as *högt språng* ‘high leap’ may be combined with a measure phrase. When such a combination is not possible, such as \*2 *decimeter djup röst* ‘a 20-centimetre deep voice’, the object, that the noun refers to, has been regarded as

abstract. However, concerning the collocations where *tjock* ‘thick’ occurs, it has been impossible to use this distinguishing test, since *tjock* ‘thick’ may refer to gases and liquids, which are indeed concrete objects but which may not combined with a measure phrase (*tjock dimma* ‘thick fog’, \*2 meter *tjock dimma* ‘2 metre thick fog’). Nor has the test been applicable for *vid* ‘broad’, since this adjective does not readily combine with a measure phrase (*vida gester* ‘wide gestures’, \*2 meter *vida gester* ‘2 metre wide gestures’).

A concrete object may also be referred to by a dimensional adjective, where the use of the adjective is metaphorical. This is shown in (5).

- (5) Ungefär som Bob Marley fick en *bred publik* att upptäcka Jamaica. (p97) ‘In roughly the same way as Bob Marley brought Jamaica to a wide audience.’

In (5), *bred* ‘broad/wide’ refers to a concrete object, but what is regarded it is not a spatial dimension of that concrete object, but an idea about the kind of personal tastes, financial conditions, etc. possessed by individuals in the group.

So far, the cases have concerned a concrete object described by a dimensional adjective used in its spatial sense (*bred älv* ‘wide river’), an abstract entity, described by a dimensional adjective, used in a metaphorical sense (*djupa känslor* ‘deep feelings’), and a concrete object, described by a dimensional adjective, used in a metaphorical sense (*bred publik* ‘wide audience’). In order to exclude all metaphorical uses of the dimensional adjectives, I have also excluded spatial uses that are embedded in a metaphorical context, as in example (6).

- (6) Alla andra ord blir *tunna flagor* som man kan dra av och kasta bort: idealist och hjälte, framgångsrik och stark, ledare och makthavare – vad är alla dessa beskrivningar mot detta: Han var en riktig människa. (B76–77) ‘All other words are thin flakes that you can peel off and throw away: idealist and hero, successful and strong, leader and in power – what are all these descriptions in comparison to this: he was a real human being.’

Example (6) states that words turn into thin flakes which are then compared to labels that may be peeled off and thrown away. I consider words turning into flakes a metaphor. The flakes are not existing objects in the fictive universe and are not therefore concrete (in the context). This means that *tunn* ‘thin’ does not describe a concrete object, although it can be argued that the adjective *tunn* ‘thin’ in *tunna flagor* ‘thin flakes’ in a decontextualised setting has a spatial use. Example (6) may be contrasted to example (7).

- (7) I skenet mot stängslet märkte hon *tunna snöflingor* singla genom luften. (B76–77) ‘In the light against the fence she noticed thin snowflakes floating through the air.’

In (7), the noun *snöflingor* ‘snowflakes’ refers to concrete objects, existing in the fictive universe. *Tunn* ‘thin’ thus combines with a noun that refers to

a concrete object. The selection criteria may seem strict, but have been developed in order to concentrate on spatial uses only, with the inclusion of minimal metaphorical “flavour”.

To further illustrate the fuzzy border between spatial and metaphorical uses, two examples, (8)–(9), may be highlighted.

- (8) Flingorna faller lätta och luftiga till marken där de lägger sig i ett *tunt täcke*. (B76–77) ‘The flakes fall light and airily to the ground where they form a thin covering of snow.’

The question is whether the use of *täcke* ‘cover(ing)’ should be regarded as metaphorical. I have taken the noun *täcke* ‘cover(ing)’ to refer to a covering. The use of *täcke* ‘cover(ing)’ referring to a coat is, in my view, so common that it is no longer regarded as a metaphorical use (faded or even dead metaphor). In (9), a use, which has been considered metaphorical, is shown.

- (9) Ett djur hördes också röra sej sumpdraget bakom den *tunna* skogsridån. (B80–81) ‘An animal was heard moving [in] the swampy stream behind the thin curtain of forest.’

The noun *ridå* ‘curtain’ has been considered to refer to a curtain as in a theatre, etc., and allowing it to refer to forest vegetation is thus judged as metaphorical. The example is not included in the corpus. Differences like these are indeed subtle.

Apart from the problematic issue of separating metaphorical from spatial uses, there is one kind of example where an object *x* is compared to something else *y*. First of all, it must be stated what noun the adjective determines, since two nouns are involved. Example (10) is one that includes a comparison.

- (10) Då såg han tydligt ön, två sammanhängande vita *kullar* som verkade *höga* som berg. (B76–77) ‘Then he saw the island clearly, two linked white hills that seemed as high as mountains.’

In (10), the noun *kullar* ‘hills’ are described as *hög* ‘high/tall’, and at the same time, the hills are compared to another object, referred to as *berg* ‘mountains’. The example has been included in the corpus, as one occurrence of *hög* ‘high/tall’, combining with *kullar* ‘hills’. No combination of *hög* ‘high/tall’ and *berg* ‘mountain’ has been counted. It is assumed that only the first object of the comparison, in this case, *kullar* ‘hills’, may actually surpass a presupposed norm. Another example, (11), may illustrate this assumption more clearly.

- (11) Den som står utanför *inhägnaden* (*hög* som en fästningspalissad) har insyn till faktoriområdet mellan pålarna, men i dunklet hade Kristoffer och Jägerfeldt givetvis inte kunnat känna igen just vår opperstyrman, men de hade varit listiga nog att hela tiden ropa på svenska, i förhoppningen att den förste svensk som dök upp bland pissbuskarna då skulle reagera. (B80–81) ‘Any-

one who stands outside the enclosure (as high as a fortress palisade) has a view into the grounds of the arms factory between the posts, but in the dark Kristoffer and Jägerfeldt had of course not been able to recognise our particular chief mate, but they had been crafty enough to shout in Swedish the whole time, in the hope that the first Swede who appeared among the pissing-bushes would then react.’

Concerning the situation depicted in (11), it can be supposed that the size of the fence is greater than average for fences, while the fortress palisade, used as a comparison object, is of average size.

Secondly, problems may occur related to the task of determining whether the comparison is realistic (reasonable), see (12), or if the dimensional adjective is used instead in what I refer to as an extended sense, see (13).

- (12) *Haschplantor* var ju *höga* som majs – eller hur? – och skulle med tiden växa så högt upp ur blomlådan att man kunde plocka topparna från taket. (B76–77) ‘The marijuana plants were as *tall* as corn – weren’t they? – and would in time grow so far above the windowbox that their crowns could be garnered from the roof.’
- (13) Överallt, i alla vagnar, ser man bara glassportioner *höga* som katedraler, jättelika sandwichar, hot-dogs och tallrikar med gulasch. (B76–77) ‘Everywhere, on all trolleys, all you can see are portions of ice cream as tall as cathedrals, enormous sandwiches, hot dogs and plates of goulash.’

In the former example, (12), two objects of more or less similar vertical extension are compared to each other, while in the latter example, (13), there is a huge size difference between the two objects. I have considered the use of *hög* ‘tall’ in example (13) as an extended use since the comparison is not reasonable in a literal sense. This is clear if a measure phrase is added to the phrase: *Haschplantorna var 2 meter höga, lika höga som majs* ‘the hashish plants were 2 metres high, as high as maize’ is a well-formed sentence while *\*Glassportionerna var 15 cm höga, lika höga som katedraler* ‘the portions of ice cream were 15 centimetres high, as high as cathedrals’ is not.

Further, it can be questioned whether both the noun *glassportioner* ‘portions of ice cream’ and the noun *katedraler* ‘cathedrals’ may combine with *hög* ‘high’. An analogous example would be to describe a man’s height in comparison to a cathedral. In Swedish, this could be performed as in (14), but not as in (15).

- (14) *Mannen var hög* som en katedral. (constructed) ‘The man was as tall as a cathedral.’
- (15) *?Mannen var lång* som en katedral. ‘The man was as high as a cathedral.’

The preferred adjective when describing a man’s height in Swedish is *lång* ‘long/tall’, as in (15), and not *hög* ‘high/tall’, as in (14). Therefore, the combination of *hög* ‘high/tall’ and *glassportioner* ‘portions of ice cream’ may be influenced by the noun *katedraler* ‘cathedrals’, leading to the

assumption that *hög* ‘high/tall’ and *glassportioner* ‘portions of ice cream’ may not be a well-formed combination. I have considered this risk is smaller for comparisons of the kind illustrated in (12) (concerning hashish and corn), where both objects belong to the super-ordinate category of plants. Concerning example (10), the objects, referred to as *kullar* ‘hills’ and *berg* ‘mountains’, also belong to a common superordinate category (heights), as do the two types of fences in (11).

In certain cases, a concrete object is compared to another concrete object, where the perspective makes the comparison reasonable, although the two entities do not have equivalent size in an absolute sense. In (16), such a case is shown.

- (16) Mitt emellan sträcker höghusen och kontorsbyggnaderna i London ut sig som ett *långt smalt band* – tunt och inklämt och spretigt som en rad byggnader längst ned i en djup dalgång. (B76–77) ‘In between, the high-rises and office blocks stretch out as a long narrow strip – thin and boxed in and sprawling like a row of buildings at the bottom of a long deep valley.’

To compare large buildings to a strip is possible since the perspective makes the buildings, which are located far away, look as small as a strip. I have counted example (16) as part of my corpus, although I consider it a borderline-case.

Further, I have omitted constructions such as *det är djupt* ‘here, it is deep’ and *det är trångt* ‘here, it is narrow’. The subject is only expressed by *det* ‘it’ and its actual reference is in some cases is unclear.

Another borderline, which it has sometimes been problematic to draw, is the one between uses in which the dimensional adjective refers to human beings, body parts, clothes and shoes, animals, animals’ body parts, and when it does not. Uses such as *tjock unge* ‘fat child’, *bred näsa* ‘broad nose’, *tjock tröja* ‘thick sweater’, *korta ärmor* ‘short sleeves’, *lång orm* ‘long snake’ and *kort svans* ‘short tail’ have all been omitted from the corpus. Where body parts are concerned I have incorporated blood and other fluids as part of the corpus. Once outside the body, I have regarded them as more detached than for example limbs and hair. Therefore, an example such as (17) has not been counted as a body part, and thus, it has been incorporated in the corpus.

- (17) Loskan flög till Leos handled, en *tjock spottloska* som blev hängande där tills den föll i golvet. (B76–77) ‘The gob flew onto Leo’s wrist, a thick gob of spittle that hung there until it fell to the floor.’

Clothes, shoes, hats, and belts have been regarded as clothes, while jewellery such as necklaces, accessories such as purses, and vision aid facilities such as eye-glasses have not been regarded as clothes, and thus, combinations of dimensional adjectives and nouns referring to such objects have been incorporated in the corpus. Descriptions of clothes with reference to the fabric, such as in (18), have been omitted.

- (18) Hon blev medveten om sitt hängande hår och det *tunna sidenet* i kimonon. (B76–77) ‘She became conscious of her hanging hair and the thin silk in the kimono.’

There are examples of fabric which has not (yet) been tailored to clothes. Such uses have been incorporated in the corpus, see (19).

- (19) *Tjocka, ruggade ratiner* låg intill kinesiska nankinsvävar, mestadels gulfärgade och med förkärlek använda till pantalonger. (B76–77) ‘Thick, ruffled ratteens lay next to Chinese nankeen fabrics, mostly yellow in colour and preferably used for trousers.’

#### 4.1.2 The elicitation test

The elicitation test was performed at Stockholm University in October 2003.<sup>5</sup> A total of 17 students, all native speakers of Swedish, participated in the test. They were informed that my purpose was to find out what nouns they thought went well together with a certain adjective. Each informant was provided with a form, with blank lines where they could enter the nouns. Each question was formulated as “Nämn tre substantiv som du tycker passar bra ihop med...” ‘Name three nouns you think go together well with’. There were 14 questions, one for each of the adjectives *hög* ‘high/tall’, *bred* ‘broad/wide’, *vid* ‘broad’, *tjock* ‘thick’, *djup* ‘deep’, *lång* ‘long’, *låg* ‘low’, *smal* ‘narrow/thin’, *trång* ‘narrow’, *tunn* ‘thin’, *grund* ‘shallow’, *flat* ‘flat’, *platt* ‘flat’, and *kort* ‘short’. The test was constructed on the same lines as the elicitation test used by Weydt and Schlieben-Lange (1998).

When processing the elicitation data, nouns which negated the spatial sense of the dimensional adjective they were collocated with were excluded, as well as those which could probably not be combined with dimensional adjective in a well-formed way. An example of the latter kind is the following: When given the adjective *grund* ‘shallow’, one informant provided the noun *båt* ‘boat’. The combination *grund* *båt* ‘shallow boat’ is rather unusual, while a free association from *grund* ‘shallow’ concerning water may lead to *båt* ‘boat’. Furthermore, the noun *grund* ‘shallows’ can be associated to *båt* ‘boat’ in the sense *gå på grund* ‘run aground’.

#### 4.1.3 The dictionaries

Data was also collected from five major Swedish dictionaries. These are Svenska Akademiens Ordbok (SAOB), Illustrerad svensk ordbok, Nuvenssk ordbok, Bonniers svenska ordbok and Nationalencyklopedins

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<sup>5</sup> The elicitation test is presented in Appendix.

Ordbok (NEO). SAOB is a historical dictionary, incorporating early occurrences, which are sometimes out of date and give an archaic impression. In such cases, this has been mentioned in relation to the relevant adjective. Under each entry for the dimensional adjectives, the dictionaries provide collocations in which the adjective is combined with a noun, such as *en tjock mur* ‘a thick wall’. Special attention has been paid to the use that is considered as “number one”, since this may indicate a prototypical use.

#### 4.1.4 Native speaker intuition

The fourth source used has been native speaker intuition (my own linguistic competence). It has provided an assessment of what should be considered “good” or “normal” uses of the adjectives. Moreover, it has been possible to construct examples in order to examine where the borders for acceptability are. Often, acceptance, or degree of how well-formed an example is, is a matter of context and therefore, the imagined situational context may influence the interpretation. By using the introspective method, the context may be manipulated in order to try various linguistic expressions. When elaborating on the issue of antonymy, it has been possible to negate authentic examples in order to find out what dimensional adjective would be used. When giving an example, which I have constructed, this is marked after the example as (constructed). Examples marked by “\*”, “?” or “(?)” are always constructed, although this is not stated explicitly.

#### 4.1.5 The interplay of the various sources

The four sources of data have complemented each other in a fruitful way. The corpus has disclosed uses that are rare, regional, old-fashioned, or in some other way just unusual. These uses might never have crossed the native speaker’s mind. Hellberg (1992) describes how corpora can function as a huge collection of instances. Frequency rates deriving from the corpus provide indications of what uses are common and what are not so common. The elicitation test reveals first of all what nouns a certain adjective is primarily associated with, in a decontextualised situation, and thus hints at prototypical uses. The dictionaries indicate, through their ranking of the various (sub)senses, what sense, according to the authors of the dictionary, is considered the primary one. Moreover, the dictionaries give example of uses which may not occur elsewhere in the data. The dictionaries can also be regarded as a kind of related research, especially SAOB, which is very thorough and detailed, since they suggest definitions, synonyms and antonyms. Finally, native speaker intuition is invaluable, both when used in a more systematic way, as described concerning antonymy or contexts, and when used in a more general way as a compass: where to start looking and for what.

## 4.2 Methodology

The methodology has involved working with the data in various ways. I will describe this process below. Most of the time has been dedicated to the corpus data, but this should not be interpreted to suggest that the corpus is the most important source.

### 4.2.1 Suggesting prototypical uses

One of the main aims of the study has been to suggest prototypical uses of the adjectives. A use corresponds to a combination of adjective and noun. It can be assumed that some uses, such as *högt hus* ‘high/tall house’ and *djup sjö* ‘deep lake’ are more prototypical than *hög myrstack* ‘high ant-hill’ and *djup tjäle* ‘deep ground frost’. The prototypical uses belong to the simple category. I have considered uses as members of the simple category, as explained in Chapter 3 (Theoretical assumptions).

When determining what uses are prototypical within the simple category, all four kinds of data have been considered. The elicitation test has played a major role. To give one example, the results for *djup* ‘deep’ in the elicitation test revealed that *hav* ‘sea’ occurred 9 times out of 37, and *sjö* ‘lake’ occurred 6 times. Such rates qualify *djupt hav* ‘deep sea’ and *djup sjö* ‘deep lake’ as prototypical uses within the case where *djup* ‘deep’ describes a container, a vertical axis with a downward direction. Thus, frequency has been taken into account. Data from the corpus has played an important part. Here, too, frequency has been considered. If the data from the elicitation test and the data from the corpus indicate two different uses (or use types), and thus their corresponding nouns, greater weight has been given to the elicitation test than the corpus. This was the case for *djup* ‘deep’. The corpus frequency rate suggested that *djupt hål* ‘deep hole’ and *djup grop* ‘deep hole’ would be prototypical uses of *djup* ‘deep’. Uses such as *djupt hav* ‘deep sea’ occurred in the corpus too, but to a lesser extent. Consideration was also paid to the dictionaries, native speaker linguistic intuition as well as to occasional input from other native speakers. It turned out that in two of the dictionaries, the examples *djup sjö* ‘deep lake’, *djupt vatten* ‘deep water’ and *sjön är djup* ‘the lake is deep’ are given as the first examples (Nusvensk ordbok and Illustrerad svensk ordbok). Two dictionaries (SAOB and NEO) gave *djup snö* ‘deep snow’ as the first example, while the last dictionary (Bonniers svenska ordbok) did not give any examples. Input from native speakers other than myself suggested that collocations such as *djup vatten* ‘deep water’ and *djupt hav* ‘deep sea’ were more prototypical than *djupt hål*. At last, my own linguistic intuition supported such a suggestion. It can be noted that in the elicitation test, the noun *hål* ‘hole’ occurred three times, while the noun *grop* ‘hole’ occurred once, but when everything was taken into consideration, this figure was not large enough to make uses such as *djupt hål* ‘deep hole’ or *djup grop* ‘deep

hole’ prototypical use. It should be borne in mind that prototypicality is in itself a gradable unit, so that the combination *djupt hål* ‘deep hole’ is still more prototypical than *djup tjäle* ‘deep ground frost’.

Concerning frequency rates, it can be noted the more expected a certain quality regarding an object is, the less necessary is it to express this quality with an adjective (Ungerer and Schmid 1996). For example, a collocation like *hög skyskrapa* ‘high skyscraper’ is less common in the corpus than *högt hus* ‘high house/building’. This means that nouns, corresponding to objects, which are thought of as *hög* ‘high/tall’, need not be the most frequent in the *hög* ‘high/tall’-corpus, which is one reason why the outcome of the elicitation test is allowed to dominate the outcome of the corpus search, when studying prototypicality. Remember that in the elicitation test only nouns were asked for, that is, the informants were not asked to write down *hög* ‘high/tall’ in combination with a suitable noun.

On the level of complex category, each case corresponds to a simple category, where some uses are prototypical and others peripheral. One case is considered central. I have devoted more effort to describing the prototypical structure of the central case than for the remaining cases. Therefore, prototypical uses have not been determined for all cases. For some adjectives, no central case has been discerned. Instead, two equally strong cases have been considered prominent. This is the case for *smal* ‘narrow/thin’. On the level of complex category, the adjective *djup* ‘deep’ is described in terms of describing vertical orientation, describing horizontal orientation, describing a container, etc. Here, the noun with which the adjective is combined is not as focused as on the level of the simple category.

Therefore, a prototypical use of an adjective is, strictly speaking, prototypical only in its own case. For *djup* ‘deep’ this would mean that in the central case, where *djup* ‘deep’ describes a container, and indicates an axis going downwards, *djupt hav* ‘deep sea’ is prototypical, while in a non-central case, where *djup* ‘deep’ describes a container and indicates a horizontal axis, from the opening to the inside of the back, *djup fåtölj* ‘deep armchair’ is prototypical. However, the fact that one case is central means that this sense of the adjective is strong or dominant. The uses that are prototypical within this case have a privileged position for the whole adjective (all cases counted). Thus, the use *djupt hav* ‘deep sea’ may be referred to as prototypical for *djup* ‘deep’ overall, even if such a description may be considered somewhat imprecise.

Not all adjectives are considered a complex category. Then, there is only a simple category, as for *lång* ‘long’.

#### 4.2.2 Suggesting central cases

The various cases have been motivated partly through the test for polysemy as explained in Chapter 3 (Theoretical assumptions). The central case (when

applicable) has been determined with regard to frequency, both regarding the elicitation test and the corpus. Dictionaries and native speaker intuition have also been used. Since the cases tend more to involve image schemas such as container, path, and vertical orientation (rather than uses), even if they, needless to say, are intertwined, this work has involved categorisation to a high degree. In this process, I have devoted more time to the data from the corpus than to the data from the elicitation test or from the dictionaries.

### 4.2.3 Working with the corpus

As mentioned earlier in this chapter, the adjective can either function as predicative or as attribute in relation to a noun. In both cases, I refer to this relation as the adjective combining with the noun. My study concerns spatial, non-metaphorical uses, and therefore, the nouns refer to concrete objects, such as *högt berg* ‘high mountain’ or to movements, such as *höga språng* ‘high leaps’. To a great degree, this means that studying the adjectives means studying objects, although these objects do not exist in the real world, since the corpus data have been gathered from fiction. I have tried to extract as many details as possible, regarding various aspects, from the context. However, to a certain degree, I have made generalisations based on the typical looks and functions of the object types.

The corpus examples have undergone categorisation and quantification during analysis of the adjectives, in order to shed light on such issues as how many instances of *djup* ‘deep’ concern objects that function as containers or how many instances of *bred* ‘broad/wide’ involve objects with the shape of a cylinder. In the process of categorisation, I have paid attention to various aspects. Cognitive linguistics is a functional approach, and therefore, the function of the object, as well as the functional situation, have been central. Further, cognitive linguistics claims that language is grounded in the cognitive abilities of the human being, and for this reason, vision-related aspects have taken a prominent place in the analysis. Here, issues such as what proportion of the visual field the object described by the dimensional adjective occupies play a role. Moreover, cognitive linguistics means that linguistic competence is grounded in our physical experience of the world, and thus, aspects such as gravitation and orientation, or how an object described by a certain dimensional adjective is grasped by the hands, have been considered in the categorisation process. (See Chapter 3, Theoretical assumptions, where cognitive linguistics is discussed.)

The theoretical assumptions of cognitive linguistics have permeated the categorisation process on a general plane. However, on a more direct level, the basis for categorisation is provided by hypotheses, either grounded in related research on dimensional adjectives concerning other (mostly European) languages, see Chapter 2 (Previous related research), or emanating from the research process, and as such, evoked by the appearance of the corpus, the elicitation test, the dictionaries, or by introspection. The

categorisation process can be considered central to the methodology of my study. Various qualities have been considered in forming the basis for the categorisation, but only a few have proven fruitful in the process of grouping and regrouping the examples. In a few cases, a certain categorisation has seemed valid, although no satisfactory label has been found for the group that can characterise the relevant qualities. Therefore, I have returned to some groups again and again during the process, changing their labels, sometimes rejecting the entire group as the label did not seem to denote anything central, then devised a new label, reassembled the same examples, etc.

Three major themes have been considered when categorising the examples. These are function, orientation, and shape. As has already been indicated, function and orientation are clearly motivated by the general assumptions of cognitive linguistics. The aspect of shape is prominent in prototype theory, where the discussion derives from Gestalt psychology and more recent theories of visual cognition, see Chapter 3 (Theoretical assumptions).

For some dimensional adjectives, such as *djup* ‘deep’ and *lång* ‘long’, the categorisation and the overall analysis go hand-in-hand with these three themes, while for other dimensional adjectives, such as *hög* ‘high/tall’, the themes have functioned as a starting-point in the underlying research project, dominating neither the categorisation nor the presentation of the analysis. As was explained in Chapter 1 (Background and purpose) and 3 (Theoretical assumptions), my intention is to study each adjective separately. I have not tried to harmonise the method for each analysis (where one analysis corresponds to one adjective) to any great extent. The result is that for some adjectives, such as *tjock* ‘thick’, the categorisation of the examples is very detailed and encompasses many levels, such as distinguishing instances on the basis of what material (hard, semi-hard, soft) the object corresponding to the noun it combines with is made of. For some other adjective, such as *vid* ‘broad’, categorisation is more or less based on a few issues, which can be summarised as whether the object corresponding to the combinatory noun is a surface, a passage, a movement or a three-dimensional object.

The frequency rates from the corpus are mostly given in exact figure. An example is that concerning *hög* ‘high/tall’, the number of examples that in which the adjective describes an object with a vertical orientation amounts to 767 out of 770 dimensional uses. Although such a presentation gives a very exact impression, nevertheless it is not my intention to present too determinate a conception of parts in relation to a whole. I have not presented the figures in tables, and for some adjectives, such as *lång* ‘long’ and *kort* ‘short’, I have not given the exact numbers at all. Thus, the intention is to describe groups of uses and make the size relations between the groups clear. Sometimes I do this by stating “the major group”, at other times, such a relation is illustrated by exact figures. If a use is very rare, for example 3

out of 770, I find it illuminating to give the exact figure, along with the few examples from the corpus.

As pointed out by Cruse (1990), many studies claiming to use definitions based on prototype-theory in fact exhibit a classical structural approach, listing features. My experience is that structural methodology is so deeply entrenched in our analytical mind (for reasons I will not go into), that even the most dedicated functionalist may at the outset of a study want to make neat lists where distinctions are clear-cut and not fuzzy. The description of contested, borderline uses of adjectives has been subject to a great deal of amendment throughout the process, altering approach and, not least, terminology.

#### 4.2.4 Marked and unmarked sense

As was mentioned in Chapter 1 (Background and purpose), I do not study how great or small an extension of an object needs to be for it to be referred to by a certain dimensional adjective, when compared to other objects, belonging to the same object type. This sense of the adjective is nevertheless present in many examples from the corpus, since a noun is normally not combined with an adjective in the first place, if the corresponding object to which it refers has not surpassed the relevant norm. Following Lyons (1977) and Lundbladh (1988), this is called the marked sense of the adjective (Lyons 1977:305, Lundbladh 1988:63).<sup>6</sup> An example of an adjective in its marked sense is given in (20).

- (20) Kimberly höll fram en *lång aluminiumpåle* som användes för att göra rent swimming-poolen. (B76–77) ‘Kimberly held out a long aluminium pole that was used for cleaning the swimming pool.’

The adjective *lång* ‘long’ in (20) expresses a great extension, or in other words, a high value on a scale. However, *lång* ‘long’ may also be used in an unmarked sense, which is exemplified in (21).

- (21) *Muren* som skär Berlin i två delar från norr till söder är 15 km *lång*, 0.50 à 1 m tjock, mellan 2 och 4 meter hög och har en total volym av 9.500 kubikmeter. (B76–77) ‘The wall that divides Berlin into two from north to south is 15 km long, 0.5 to 1 metre thick, between 2 and 4 metres high and has a total volume of 9,500 cubic metres.’

The adjective *lång* ‘long’ in (21) is unmarked, and it functions as a neutral indicator of the dimension denoted. The adjective hereby encompasses the whole scale, in opposition to the marked sense of *lång* ‘long’ which indicates a position further to one of two end-points (Lundbladh 1988:73).

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<sup>6</sup> The terms, marked, and unmarked, are used in varying ways in the linguistic literature. I will not discuss this issue further here. For a comprehensive overview of markedness in relation to antonyms, Lehrer (1985) can be recommended.

In (21), *lång* ‘long’ is combined with a measure phrase. Further, the dimensional adjectives occur in their unmarked sense in questions, such as example (22).

- (22) Bilvägen dit är det två mil. Undrar hur *lång fågelvägen* kan vara. (B80–81)  
‘By car it’s twenty kilometres. Wonder how far it could be as the crow flies.’

Dimensional adjectives are also unmarked in comparative, see (23), and in superlative, see (24).

- (23) Ja, det stod och stödde sig på två käppar, och det var det som kom mig att fatta att det inte var något spöke, för den ena *käppen* var *längre* än den andra. (B76–77) ‘Yes, it stood leaning on two sticks, and that’s what made me realise it wasn’t a ghost, because one of the sticks was longer than the other.’
- (24) De fick släpa ner de *längsta bitarna* och doppa dem i vattnet och sen sprida ut dem i strandskravlet. (B76–77) ‘They had to drag the *longest bits* and dip them in the water and then spread them out on the shingle.’

Further, adjectives taking part in constructions with *lika* ‘as’ are unmarked, see (25).

- (25) Man plogade inte vägen utan man bultade den. Det vill säga, man körde utefter den med en stor *trävält*, som var lika *bred* som vägen och packade ihop snön. (B76–77) ‘The roads were not ploughed but compacted. In other words, they drove along with a big wooden roller that was as *wide* as the road and pressed the snow together.’

Finally, in constructions where an adjective combines with *för* ‘too’, *alltför* ‘too’, and *så...att* ‘in order...that’, the adjective has an unmarked uses. In (26), such an example is shown.

- (26) Min fiol hade för *högt stall* eller för *låg greppbräda*, en fiolbyggare borde kunna göra vid den. (B76–77) ‘The bridge of my violin was too high or the fretboard too low; a violin maker should be able to restore it.’

Even though an object lacks the dimensions to justify use of a dimensional adjective in its marked sense, it may still therefore be described by a dimensional adjective in its unmarked sense (Lundbladh 1988:63, Teleman et al. 1999:Chapter 4, §10).<sup>7</sup>

<sup>7</sup> According to Ebeling and Gelman (1994), an adjective can be normative, functional and perceptual. Their categorisation roughly corresponds to the marked sense (which they term normative) and unmarked sense (which they term functional or perceptual).

It appears that some uses may include two or maybe all three of the adjective types. In (1) below, such an interpretation is possible.

- (1) Efter ytterligare trettio meter nådde vi en *bred klipphylla* alldeles under bandet av sten. (B76–77) ‘After a further thirty metres we reached a wide rock ledge right beneath the band of rock.’

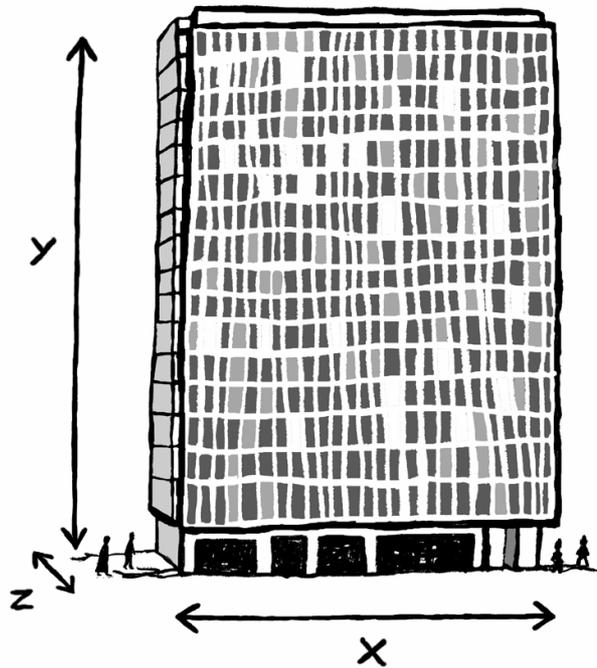


Figure 1. Building known as Hötorgsskrapa

The unmarked uses have been included in the corpus. These examples may thus extend the limits of the dimensional adjectives somewhat and lead to interesting discussions in the specific case.

#### 4.2.5 Combinations of adjectives

Bierwisch (1967), Lyons (1977), Lang (1989), Galeote et al. (1999), and Stolz (1996), study the combination of adjectives, as do Spang-Hanssen (1990) and Weydt and Schlieben-Lange (1998) to a certain degree. Stolz (1996) has tables where the author lists what adjective can combine with what in order to describe two or three dimensions of an object. This approach has not seemed fruitful for my purposes. In the process of this study, my belief that the adjectives do not cover separate constituents of a patchwork but that each one has a sense that is unrelated to some extent to

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The *klipphylla* ‘rock ledge’ of example (1) may be referred to as *bred* ‘broad/wide’ both because it is wider than other *klipphyllor* ‘rock ledges’ that the author/narrator has encountered (normative use of the adjective), and because it is wider than some of the other areas in the immediate setting (thus making the adjective perceptual), and finally because it is wide enough to perform some activity on (thus making the adjective functional). My opinion is that the traditional separation of marked and unmarked adjectives is better suited to capture when an adjective expresses a value on a scale, and when it only recalls what scale is relevant.

the other dimensional adjectives has intensified. The description of *lång* ‘long’ is an exception since it is claimed that the adjective refers to the maximal dimension of an object, if for some reason *djup* ‘deep’, *hög* ‘high’, *bred* ‘broad/wide’ cannot be preferred. In the studies mentioned above, it is assumed that there are certain sets of combinations of adjectives used to describe the dimensions. Instead, I would suggest that different adjectives may be used to describe an object, the choice depending on what dimension, and what function of that dimension is to be highlighted. One example is a building with the proportions indicated in Figure 1.

The house in Figure 1 can be referred to as *hög* ‘high/tall’ concerning dimension  $y$ , *bred* ‘broad/wide’ concerning dimension  $x$  and *djup* ‘deep’ concerning dimension  $z$ . The dimension  $x$  may also be referred to as *lång* ‘long’, if the extension along the ground is stressed without really taking the other dimensions into account. The dimension  $z$  may be referred to as *tjock* ‘thick’ or as *bred* ‘broad/wide’. Even, two dimensions may be referred to by the same adjective (thus contradicting Lang (1989) where one dimensional adjective may not describe two different dimensions of one object at the same time). Both  $x$  and  $z$  may be referred to as *bred* ‘broad/wide’, although this would probably require the addition of something like *på den här ledde* ‘from here’. Unlike Lyons (1977) and Lang (1989), I do not believe that the choice of *bred* ‘broad/wide’ (*wide* in their studies) for dimension  $x$  necessarily predicts that *djup* ‘deep’ must describe dimension  $z$ . It may be added that descriptions where three dimensional adjectives are used to describe one object are rare in the corpus (when they occur, they are combined with measure phrases).

Linde-Usiekniewicz (2000) points out that there is a difference between describing all three (or two, for a two-dimensional object) dimensions of an object and describing a single dimension, thus, one dimension may be referred to by one adjective as a single dimension as by another one as one dimension of several.

## 5 The semantics of *hög* ‘high/tall’ and *låg* ‘low’

The purpose of this chapter is to give a thorough and detailed account of the meaning of the dimensional adjectives *hög* ‘high/tall’ and *låg* ‘low’. *Låg* ‘low’ is commonly recognised as the antonym of *hög* ‘high/tall’. *Hög* ‘high/tall’ usually describes a vertical dimension, either in an unmarked use (as when specified by a measure phrase), or in a marked use (indicating great extension). In some cases, the dimension referred to by *hög* ‘high/tall’ is not vertical, a phenomenon which will also be incorporated in the study.

The purpose is not to study to what extent a norm has to be surpassed in order for an object to qualify for description as *hög* ‘high/tall’, i.e. how big or small a dimension has to be in order to be described as *hög* ‘high/tall’.

*Hög* ‘high/tall’ as well as *låg* ‘low’ have a dimensional use, such as *högt hus* ‘high/tall house’, and a positional use, such as *högt fågelbo* ‘high bird’s nest’.

In this chapter, I will introduce arguments for the upward direction of *hög* ‘high/tall’, where related research on HIGH has merely assumed an upward direction, without discussing the issue any further. Moreover, a suggestion from Durrell (1988), concerning the dissociation of, on the one hand, the vertical extension, measured by HIGH, and, on the other hand, the vertical dimension of the object, being described as HIGH, is elaborated and supported by evidence from the corpus. Finally, arguments are presented for a twofold direction of *låg* ‘low’, a matter that related research on dimensional adjectives has neglected.

### 5.1 *Hög* ‘high/tall’ in the dictionaries

SAOB discriminates between five main spatial senses of *hög* ‘high’.<sup>8</sup> The first sense describes an object, which has a great extension in an upward, vertical direction, such as *höga hus* ‘tall buildings’, or an object, which extends or reaches far up, such as *höga stövlar* ‘high boots’, or an object, which extends far up from the sea level, such as *höga bärg* ‘high mountains’.<sup>9</sup> Uses which describe motion, such as *högt kast* ‘high throw’ and *höga språng* ‘high jumps’, can also be found associated to this first

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<sup>8</sup> SAOB lists another use of *hög* ‘high’, which concerns people formations, such as *gå tre man högt i ledet* (lit. ‘walk three man high in the rank’) ‘walk in files of threes’. This use is rather unusual today and I have omitted it from the study.

<sup>9</sup> The spelling of *bärg* is obsolete.

sense. The second sense describes an object, which protrudes significantly from the background, independent of direction, such as *hög relief* ‘high relief’. The example seems to be a term borrowed from French *haut relief* ‘high relief’ or Italian *alto rilievo* ‘high relief’. The third sense describes an object which is located far up, or at a certain distance, in a vertical direction from the ground level, or from sea level, or from some other specified point, such as *höga axlar* ‘high shoulders’ and *solen står redan högt* ‘the sun is already high’. The fourth sense describes a position, which is far or further in, such as *båten ... ligger nu högt uppe på land* ‘the boat ... is now high up on the shore’ or *Han blev placerad hög(s)t uppe vid bordet bland hedersgästerna* ‘He was seated at the top of the table among the guests of honour’. The fifth sense is a nautical use where an expression such as *högt i vind* ‘tack’ refers to a manner of sailing against the wind. This use refers to a position on a non-vertical axis.

SAOB points out that the collocations *högt vatten* ‘high water’ and *högt vattenstånd* ‘high water level’, listed under the first main meaning, sometimes approach the third main meaning where a location rather than a dimension is described. This is particularly striking when the level of the water surface is considered.

The fourth main meaning, which describes a position which is far or further in, SAOB labels as a figurative (“oegentlig”) use of the third main meaning, which describes placement on a vertical axis.

NEO defines the spatial use of *hög* ‘high’ as describing objects with a great extension in an upward direction. NEO lists three nuances of this sense. The first one concerns something which is located or which takes place at a great height, such as *höga moln* ‘high clouds’. The second nuance concerns a position or extension in a horizontal direction, such as *det står att läsa högt upp på sidan* ‘it can be read high up on the page’. The third nuance of sense concerns measure phrases. NEO terms this meaning “neutral” and gives the example *huset är 10 meter högt* ‘the house is 10 metres high’.

Illustrerad svensk ordbok discerns two main concrete senses. The first one describes an object that *reser sig långt uppåt* ‘rises a long way up’, that has considerable height and which is elevated above its surroundings. Examples are *höga berg* ‘high mountains’ and *höga träd* ‘tall trees’. The second sense describes an object that is located high up. Examples are *staden har ett högt läge* ‘the town is situated high up’.

Nusvensk ordbok gives the definition ‘which reaches or is located high’ for spatial uses of *hög* ‘high’. It gives numerous examples, separated into eight groups, without commenting on the examples. Among the examples, *höga berg* ‘high mountains’, *ett högt läge* ‘a high location’, *det höga gräset* ‘the long grass’, *höga hinder* ‘high hurdles’, *högt vattenstånd* ‘high water level’, *den höga himlen* ‘the high sky’, *i höga nord* ‘in the far north’, and *hög relief* ‘high relief’ can be found.

Bonniers svenska ordbok considers *hög* ‘high’ as too well-known and common a word to need explanation. The dictionary limits itself to a few

examples where *hög* ‘high’ is used, such as *höga berg* ‘high mountains’ and *höga moln* ‘high clouds’.

## 5.2 Related research in the past

The related literature can be separated into two major groups. The first one concerns the dimensional adjective HIGH and LOW and related spatial terms, such as HEIGHT and the adverbs HIGH and LOW. The second group treats verticality. Research concerning LOW more specifically is treated in section 5.7.

### 5.2.1 Related research in the past on HIGH/TALL

Greimas (1966) proposes a componential analysis of the French adjectives *haut* ‘high’ and *bas* ‘low’, where the relevant semantic features are spatiality, dimensionality, verticality, horizontality, perspective and laterality. An adjective can either receive a “+” or a “–“ for each feature. *Haut* ‘high’ receives “+ “ on spatiality, dimensionality and verticality, but “–“ on the remaining features (Greimas 1966:35).

According to Bierwisch (1967), German *hoch* ‘high’ and *niedrig* ‘low’ should be comprehended in terms of one-dimensionality and verticality. The adjectives describe one dimension, not two, as may *groß* ‘big’ or *dick* ‘thick’. The adjectives describe a vertical extension. *Hoch* ‘high’ as well as *niedrig* ‘low’ describe an extension in which the direction of the axis is dependent on the normal placement of the object with respect to its environment. According to Bierwisch, the object’s inherent axes are dominated by the vertical axis. (Bierwisch 1967:26.)

Fillmore (1997:38) considers that if an object is vertically oriented along one of its major dimensions, it will be called *tall* or *short*.<sup>10</sup> *High* and *low* is reserved for vertical distances from the horizon, or the earth’s surface or some other reference point.

Clark (1973) describes the English adjectives *high*, *low*, *tall* and *short*. According to his analysis, *tall–short* and *high–low* have ground level as their reference plane, unless another reference plane is mentioned. Furthermore, the adjectives involve a vertical direction. *High–low* and *tall–short* describe three-dimensional objects. *Tallness* Clark glosses as “vertical length”, while *height* is glossed as “vertical distance”.

Lyons (1977) deals with English *high* and *low*. He states that *high* and *low* can both describe an extension and a distance, which makes the phrase *a high window* ambiguous. The notions of extension and distance relate to

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<sup>10</sup> Although not published until 1997, the contents of Fillmore (1997) were given as a lecture series in the summer of 1971 in Santa Cruz, hence the work has been placed before Clark (1973). I try to follow chronological order as long as thematic matters do not oppose such a presentation.

each other in such a way that if a street is hundred yards long (Lyons's example), measured from one point to another, the two points are hundred yards apart. Like Clark, Lyons is of the opinion that *height* and *tallness* are measured upwards from a point of reference, commonly ground-level (Lyons 1977:701).

Galeote et al. (1999) has tested the model on which Lyons (1977) claims the identification of the dimensions of an object are based on Spanish-speaking informants. The results indicate that although informants may make "errors" *height* is a term that presented no difficulty so that the informants made very few "errors".

Lafrenz (1983) examines German *hoch* 'high'. Like Bierwisch (1970), he thinks that dimensional *hoch* 'high' as well as positional *hoch* 'high' involves a reference point. For dimensional *hoch* 'high', the reference point is the underside of the object, for positional *hoch* 'high', the reference point is at the ground level (or at one of two points of a distance that is closest to the ground level). According to Lafrenz, an object may be described as (dimensionally) *hoch* 'high', either if the main dimension of the object is vertical, as is the case of *Mast* 'mast', or if the object is placed, albeit temporarily, in such a way that it receives a vertical extension, as is the case of *Stange* 'pole'. Further, Lafrenz suggest that an object that may be described by (positional) *hoch* 'high' is generally a constituent of a part-whole relation, as *eine hohe Decke* 'a high ceiling' is part of a *Saal* 'hall'.

Durrell (1988) examines German and English dimensional adjectives in a comparative study. Starting with English *tall* and *high*, he states that both adjectives correspond to the noun *height*. Evidence is found in the equivalence of a sentence such as *what is the man's height to how tall is the man*, and the corresponding equivalence of *what is the height of the mountain to how high is the mountain*. *High* can both refer to a layer over a certain reference point, which is usually the ground, as in *high clouds*, and to a vertical extension of an object, measured from a specific reference point, as in *a high mountain*. In both cases, the adjective refers to a point along a vertical scale. In the layer sense, this point corresponds to the position of the object, and in the extension sense, this point corresponds to the upper side. This differentiates *high* from *tall*, since the former adjective does not primarily refer to an inherent dimension, as does *tall*, but to a vertical extension. Further, Durrell claims that *tall* is not used in an unmarked sense, but only in a marked one (see introduction to this chapter), so that *tall* is never used just to indicate the pertinent dimension, but always used to indicate that the vertical dimension of an object is particularly large. Therefore, in comparative phrases where only the dimension and no norm is involved, *tall* is not used, while *high* is. Moving on to German *hoch* 'high', Durrell states that this adjective may also describe a layer as well as a vertical extension of an object. German *hoch* 'high' corresponds both to *tall*, which describes an inherent dimension of an object, and to *high*, which describes a vertical extension. In order to clearly describe inherent size of

an object, *lang* ‘long’ is better than *hoch* ‘high’, since it has a clearer reference to dimension, even if its prototypical use rather describes other dimensional directions. For this reason, *lang* ‘long’ is sometimes an alternative to *hoch* ‘high’, as in *ein langer Mast, Pfahl* ‘a long pole’.

In Dirven and Taylor (1988) it is suggested that English *high* describes a vertical extent measured from the base of the entity. There is also positional *high*, which mostly has the ground or floor level as its reference. Apart from *high*, there is the adjective *tall*, which has a smaller distribution and a more particular meaning. *Tall* stresses the upward extension as more salient than other dimensions of the object. Further, *tall* reflects dynamicity. The object has acquired its tallness by for example natural growth or human activity. Finally, *tall* objects stand out from the background as being distinct and discontinuous with their environment.

Lang (1989) encompasses eight pairs of German adjectives, including *hoch–niedrig* ‘high/tall–low’.

The relevant scale for *hoch–niedrig* ‘high–low’ is expressed as *vert*. *Vert* should be considered a semantic prime, which most likely has universal status, i.e. a correlation between some lexical item and the prime *vert* exists in most languages (Lang 1989:292).

*Vert* assigns the dimension that is parallel with the vertical axis. *Vert* has a direction; it starts at the foot point (Lang’s term) and goes upwards. If an object is described only by taking its Gestalt into account, no dimension will be called *hoch* ‘high’, since *hoch* ‘high’ requires a relation to the surroundings (in order to find out where the vertical (geofugal) axis in the surrounding is and thereby determine the vertical axis in the object). Described only as a Gestalt, the adjectives *lang* ‘long’, *breit/weit* ‘broad/wide’ and *dick* ‘thick’ would be used. In order to describe a dimension as *hoch*, orientation is needed. Perspectivisation is not needed, i.e. the observer (Lang’s term) is not involved, unlike the case of *tief* ‘deep’.

In a later study, Lang (2001) redefines *vert* as identifying an extent of some object *x* as the one that is aligned with the Vertical axis of the “Primary Perceptual Space” (PPS). PPS is described as a frame of reference yielding position features, as opposed to another frame of reference, called “Inherent Proportion Schema” (IPS), which yields proportion-based Gestalt features. PPS is based on three axes: the vertical axis, the observer axis and the across axis, while the IPS is based on object delimitation, dimensionality, symmetry axes, axial (dis)integration, penetrability and salience of object extents. The parameter *vert* primarily belongs to the PPS, however, the two frames of reference (IPS and PPS) interact. Both frames are rooted in the human perceptual endowment and both consist of a system of axes. (Lang 2001:1253–1254.)

In addition, Lang (2001) claims that for an object with a vertical extent that is not at the same time its minimal extent, the corresponding *vert* term will name the extent. It does not matter whether the verticality is primary or contextually induced.

Lang discerns three different types of languages: proportion-based (or proportion-fixed) languages, observer-based (or observer-fixed) languages, and proportion/observer-mixed type of languages. For languages that are based (or fixed) in relation to one of the frames (either proportion or observer), it seems as if the *vert* term behaves differently than for languages that are mixed. For fixed languages, the *vert* term does not interfere with the application of the *max* term or the *across* term. This means that the assignment of verticality has no impact on the basic options for the other dimensions. For mixed type languages (in which Lang would include Swedish according to a parenthesis on page 1266), there is a subtle option allowing realisation of maximality and verticality assignment to the same object. The occurrence of the *vert* term causes (or at least allows) the maximal extent of the object *x* to be named by the *across* term, provided it has a suitable specification for the dimension. As I understand Lang, it would correspond to the following: If an object is called *hög* ‘high’ with reference to its vertical dimension, this causes, or at least allows, the maximal dimension of the same object to be called *bred* ‘broad/wide’. A *svart tavla* ‘blackboard’ can be described this way: the vertical extension is called *hög* ‘high’ and the maximal extension is called *bred* ‘broad/wide’. According to Lang, the use of the *vert* term more or less induces use of the *across* term to label the maximal dimension (instead of the *max* term). This idea will be further elaborated in the Chapter 6 on *bred* ‘broad/wide’ and Chapter 11 on *lång* ‘long’.

Spang-Hanssen (1990) suggests an algorithm for identifying the dimensions of objects. He differentiates oriented objects from objects with no specified orientation. For non-oriented objects, the algorithm prescribes that the first step selects the very minimal extension and labels it *épaisseur* ‘thickness’. This extension may at the same time be vertical, as is the case of a board (my example). Secondly, the vertical dimension is labelled *hauteur* ‘height’, unless the dimension has already received a name (i.e. *épaisseur* ‘thickness’). One example would be a brick (my suggestion).

For an oriented object, a more complex situation arises. The first step is to ask whether the object has a canonical height. If so, the object should be turned mentally in such a way that the actual height coincides with the canonical height. Secondly, it should be determined whether the object has inner or outer measurements. If it has inner measurements, the vertical dimension is identified as the *hauteur* ‘height’. To my understanding, such an object would be a bookcase. If the object, on the other hand, has outer measurements, the very minimal extension is labelled *épaisseur* ‘thickness’. Such an object would, to my understanding, be a mat. Then the vertical extension receives the label *hauteur* ‘height’ if it has not already been given a name (i.e. *épaisseur* ‘thickness’). An example of such an object would be a building (my suggestion).

In Weydt and Schlieben-Lange (1998) a slightly different algorithm is suggested regarding the German dimensional adjectives. The authors under-

stand the naming of dimensions as a two-step sequence, where a few rules apply. A description either starts by taking two dimensions into account, omitting the third dimension, or it starts by taking the salient dimension into account, omitting the two remaining dimensions. In the second step, the previously omitted dimension(s) is/are identified. An example of the first process would be a *Turm* ‘tower’, which is first identified as *hoch* ‘high’, and in a second step as *dick* ‘thick’ (the latter adjective is used for the two remaining dimensions). An example of the second process would be shelves, that are first labelled *hoch* ‘high’ and *breit* ‘broad/wide’, and in the second step of the analysis are considered *tief* ‘deep’ as well (Weydt and Schlieben-Lange 1998:202–206). Further, the authors let informants name nouns that went particularly well with *hoch* ‘high’. The top concrete nouns were *Turm* ‘tower’, *Berg* ‘mountain’, *Haus* ‘house’, *Hochhaus* ‘high-rise building’ and *Baum* ‘tree’. The authors declare that the meaning of *hoch* ‘high’ and *niedrig* ‘low’ is the marking of a point on the vertical axis, which has an upward direction. The adjectives refer to a point of reference. The point may, but need not, coincide with the viewpoint of the observer (Weydt and Schlieben-Lange 1998:219). Further, the authors think that *hoch* ‘high’ refers primarily to an end point. This leads them to the conclusion that *hoch* ‘high’ is not an extent adjective in the original sense. The authors claim that *hoch* ‘high’ can be paraphrased roughly as “big distance from the centre of the earth” (Weydt and Schlieben-Lange 1998:221). The meaning itself does not specify whether a dynamic movement, an extension or a position is considered. Such information is provided from the context (Weydt and Schlieben-Lange 1998:221).

Geckeler (1997) applies the Weydt and Schlieben-Lange analysis to French dimensional adjectives.<sup>11</sup> Geckeler points out that an argument for the direction of *haut* ‘high’ (from bottom to top) is that a thread hanging from the ceiling will not be called *haut* ‘high’ but *long* ‘long’.

Stolz (1996) describes the Yucatec Maya term *ka’nal* ‘high’ as identifying an axis of one, two, or three-dimensional objects, where the axis is aligned with the vertical plane. *Ka’nal* ‘high’ may describe an integrated axis (such as one of the axes of a circle or a wheel) if the axis coincides with the vertical axis (Stolz 1996:219–220).

In Yucatec Maya, an interesting lexical item exists, which can describe vertical extensions of meagre extent. Stolz does not describe the item as an antonym of *ka’nal* ‘high’. The lexical item, a dimensional adjective, is *hay*, translated as ‘thin’ by Stolz. Normally, *hay* ‘thin’ describes a three-dimensional object without any respect to orientation, identifying the minimal dimension, as the antonym of *plim* ‘thick’, but in particular uses, *hay* ‘thin’ may describe the vertical extension of a two-dimensional surface of a three-dimensional object, such as the vertical dimension of a block

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<sup>11</sup> The text by Weydt and Schlieben-Lange was apparently previously published in a volume dedicated to Geckeler on his 60<sup>th</sup> birthday in 1995.

lying on the ground. When used like this, *hay* ‘thin’ has no antonym. (Stolz 1996:137–138.)

In Wienold and Rohmer (1997) it is claimed that HEIGHT is a rather specific concept, since no languages use the expression for HEIGHT to denote other dimensions as well. According to Wienold and Rohmer (1997), HEIGHT means a vertical extension upward from the speaker or the point of orientation. The extension may be maximal but need not be. HEIGHT can also describe a vertical distance upward from a speaker or point of reference, to a position or location of an object. (Wienold and Rohmer 1997:151, 162.)

Rakhilina (2000) studies Russian *vysokij* ‘high’. According to this analysis, an object needs a canonical verticality in order to be eligible for *vysokij* ‘high’. A stick or a nail is not described as *vysokij* ‘high’. Furthermore, an object with no fixed shape is not described as *vysokij* ‘high’, such as a string. Nor may an object attached to another object and directed downwards, such as an icicle, be described as *vysokij* ‘high’. Finally, in order to be described by *vysokij* ‘high’ in its positional sense, the object needs to be located at the high altitude on a more permanent basis. This explains why a windowsill, but not a fruit on a tree, is described as *vysokij* ‘high’.

Linde-Usiekniewicz (2002) studies Polish spatial terms, both the adjectives *wysoki* ‘high’ and *niski* ‘low’, the adverbs *wysoko* ‘high’, *nisko* ‘low’, *wyżej* ‘higher’, *niżej* ‘lower’ and the noun *wysokość* ‘height’. She refers to the group of terms as the cluster *WYSOKI* ‘HIGH’. According to her results, the dimension associated with HIGH is aligned with the vertical, from bottom to top. Objects to which height is assigned are directed upwards. Therefore, neither curtains, nor lamps hanging on a rigid pole from the ceiling are high. Height includes orientation and verticality. There is also a distance sense. Here, too, there is a vertical alignment directed upwards. Linde-Usiekniewicz (2002:219) claims that for Polish, ‘distance’ should be regarded as a separate sense, and not as a question of contextual interpretation.

Goy (2002) studies the Italian adjectives *alto* ‘high/tall’ and *basso* ‘low/short’. The author got informants to rate how well certain nouns could be combined with *alto* ‘high/tall’ and *basso* ‘low/short’. *Torre* ‘tower’ received a good score for *alto* ‘high/tall’ while *sigaretta* ‘cigarette’ received a bad score for *alto* ‘high/tall’.

According to Goy, an object needs a “relevant vertically oriented axis” in order to be described by *alto* ‘high’. In most cases, the most salient axis (called “model axis” by Goy, borrowing the term from Marr 1982) should be vertically oriented, as for *torre* ‘tower’. There are also cases where an axis which is not the most salient one may be vertically oriented and thus enable the object to be described as *alto* ‘high/tall’, a building for example. In such cases, the vertical axis either needs to be of the same extent as or greater than the horizontal axis, or it needs to be greater than standard

human height. Here, Goy takes the matter of norms into account, which distinguishes her study from the rest of the literature referred to here. Norms are most frequently left out of the discussion, or at least, they are not treated as explicitly as in this study in which Goy provides measurements to determine when the norm is exceeded.

For some objects the orientation is fixed, such as *torre* ‘tower’, while for others there exists a typical position, such as *bicchiere* ‘glass’. The former group correspond, to my understanding, to Lang’s fixed orientation (Lang 1993:273), while the latter correspond to Lang’s canonical orientation (Lang 1993:273).

Goy draws attention to the fact that in the case of some objects, such as *bicicletta* ‘bicycle’ and *tavolo* ‘table’, *alto* ‘high/tall’ describes the distance of a surface from the ground. For a bicycle, the relevant distance is from the ground to the saddle (Goy 2002:132).

### 5.2.2 Related research in the past on the vertical axis

Earlier studies agree upon the assumption that HIGH is associated with the vertical axis. To mention only a few, Bierwisch (1967), Fillmore (1997), Lang (1989), and Spang-Hanssen (1990) have developed ideas on the relationship between the adjective HIGH and the vertical axis. Bierwisch (1967:16) claims that the marker (+Vert) has the property of orientation of an axis with respect to the object’s environment. Fillmore (1997:32) writes about the up/down orientation, which is determined by the direction of gravitational forces as perceived on the earth. He also relates *high* and *tall* to the top/bottom axis and the base line (1997:39). According to Spang-Hanssen (1990:297), French *hauteur* ‘height’ designates a dimension that is parallel to the dimensions of a considered space, and has only an indirect relationship to the proportions of the object. Lang (1989) differentiates between different types of verticality and orientation. He suggests that for an object like *Schrank* ‘wardrobe’, German *hoch* refers to the vertical axis of the surrounding space. The object has a canonical orientation in space. For an object like a *Buch* ‘book’, the adjective *hoch* need not refer to the vertical axis of the surrounding space. Instead, it refers to an object-inherent top-bottom extension. The object has an inherent (as opposed to canonical) orientation (Lang 1989:276).

The vertical axis seems more prominent than the two remaining non-vertical axes of three-dimensional space. Children can more easily differentiate vertical directions than non-vertical ones (Miller and Johnson-Laird 1976:63).

Gravity defines a “natural direction”, verticality, and a plane of reference, the ground level. Objects above the ground level are perceptible, while what is below the ground is not perceptible, making upward the positive direction and downward the negative one (Clark 1973:32–33). A great number of

metaphors express or can be derived from the vertical axis and its direction upward as explained by Lakoff and Johnson (1980). An example is *The number of books printed each year keeps going up* and the conceptual metaphor summing up this type of metaphors is MORE IS UP (Lakoff and Johnson (1980:15).

The vertical axis is so fundamental to our perception and conception of the world that it forms one of our basic schemas (Vertical Axis) (Langacker 1987), also see Johnson (1987). This can be compared to how Lang (1989:292) considers *vert* a semantic prime, see 5.2.1.

Ekberg (1997) shows that vertical expressions may refer to non-vertical relations, such as *Han gick upp och ner i korridoren* ‘he walked up and down the corridor’. Her work is relevant for my analysis on adverbial expressions such as *högre upp på sidan* ‘higher up on the page’ and it will be referred to more in section 5.4.1.

According to Strzelecka (2003), the image schema Vertical Axis dominates the image schema Container in Swedish, to the extent that if both image schemas are applicable, a relation profiling the Vertical Axis will be expressed linguistically. Thus, to climb out of a barrel is in Swedish expressed as *kliva upp ur tunnan* ‘climb up from the barrel’, not as *kliva ut ur tunnan* ‘climb out of the barrel’, if the barrel has its canonical, upright position (Strzelecka 2003:216).

Further, in related research on HIGH there is agreement that the adjective has a direction upwards. Among the works discussing this matter can be listed Dirven and Taylor (1988), Geckeler (1997), and Linde-Usiekiewicz (2000).

The exploration by Dirven and Taylor (1988) of the semantics of *tall* points out that *tall* describes dynamic, upwardly rising structures, such as *tall stalagmite*, whereas *?tall stalactite* (protruding downwards) is barely acceptable (Dirven and Taylor 1988:392–393).

Geckeler (1997) suggests that an argument for the direction of French *haut* ‘high’ (from bottom to top) is that a thread hanging from the ceiling will not be called *haut* ‘high’ but *long* ‘long’.

Linde-Usiekiewicz (2000) encompasses the same phenomena by stating that objects to which HEIGHT is assigned are directed upwards. Therefore, neither curtains, nor lamps hanging on a rigid pole from the ceiling are HIGH.

Langacker (1987) describes the image schema of the vertical axis as having a direction.

### 5.3 Claims concerning *hög* ‘high/tall’

The spatial, non-metaphorical sense of *hög* ‘high/tall’ can be described as a simple category, having prototypical uses and peripheral uses. *Hög* ‘high/tall’:

- Prototypically refers to the vertical dimension, where the adjective either has a marked sense, indicating a great extension in relation to a certain norm, or an unmarked sense that includes no information about the relation of the dimension to a norm, but merely that the scale concerns the vertical dimension and no other.
- Describes inner and outer measurements.
- The vertical extension is considered being measured from a reference plane to the top of the object.

The adjective is preferably combined with nouns referring to objects:

- With a canonical vertical orientation.
- Located or comprehended as located on the ground.
- Showing factive or fictive motion in the upward direction.
- Whose vertical dimension is the maximal one.
- Of the same size as human beings or larger.
- Profiled against the background.
- With a functional top.
- Made of rigid material.

The more of these qualities the object possesses, the more prototypical its class of referents in relation to *hög* ‘high/tall’.

Some referent classes are so prototypical that they are perceived as being *hög* ‘high/tall’ themselves. Such examples are *bergstopp* ‘summit’ and *skyskrapa* ‘skyscraper’. When used as an attribute, *hög* ‘high’ may be considered more or less redundant, so that *hög bergstopp* ‘high summit’ is regarded as synonymous to *bergstopp* ‘summit’.

Apart from the dimensional use, there is also a positional use, such as *högt fågelbo* ‘high bird’s nest’.

## 5.4 Results and discussion on *hög* ‘high/tall’

In this section, I will discuss the claims of section 5.3. I will begin with the vertical orientation, then move on to the starting point of the vertical extension (the reference plane), and then treat the direction of the vertical extension. I will then go on to show what nouns the adjective rather combines with, and discuss qualities of these objects that the nouns refer to.

### 5.4.1 Orientation

As mentioned in section 5.2.1, the adjective HIGH is associated with the vertical axis (see, among others, Bierwisch 1967, Fillmore 1997, Spang-

Hanssen 1990, and Lang 1989). For Swedish, this is shown in adverbial expressions, such as *högt upp* ‘high up’, whereas *?högt fram* ‘high ahead’ or *?högt in* ‘high in’ sound odd.

The distribution in the corpus is the following: In 767 out of 770 instances, *hög* ‘high/tall’ combines with a noun which corresponds to an object having a vertical orientation. The examples (27)–(29) show how the adjective *hög* ‘high’ describes an object with an actual vertical orientation.

- (27) Doften av jasmin och pinjer kommer ner från de *höga bergen* och sveper in mig. (B76–77) ‘The scent of jasmine and pine is carried down from the high mountains and envelops me.’
- (28) Till höger hade jag en brant med stenskravel och buskar och en åsrygg med stora block, ekplantor, en ensam och *hög rönn*, några stubbar och en rotvälva. (B80–81) ‘On my right I had a steep rise covered in shingle and bushes and a ridge with large boulders, oak saplings and a solitary and tall mountain ash, some stubble and vaulted roots.’
- (29) Det var ett *högt hus*. (B76–77) ‘It was a tall building.’

In example (27)–(29), the adjective *hög* ‘high/tall’ combines with *bergen* ‘the mountains’, *rönn* ‘mountain ash’ and *hus* ‘house/building’. The nouns refer to objects with a vertical orientation.

In 3 instances out of 770 in the corpus, *hög* ‘high/tall’ combines with a noun, which refers to an object with an actual non-vertical orientation. The first of these examples is given in (30).

- (30) Det *höga gräset* var gult och vått och hade vikt sig mot marken, platt, som efter ett slagregn. (B80–81) ‘The long grass was yellow and wet and had flopped down towards the ground, flat, as if after a downfall.’

In example (30), *gräset* ‘the grass’ describes an object which, according to the text, is folded and lies flat on the ground. The vertical orientation is canonical, whereas an actual vertical orientation is lacking in the situation depicted in the utterance (30).

Books, pictures, magazines, letters and columns may also be described as *hög* ‘high’, even if the object lacks an actual vertical orientation. In the corpus, there are two instances of this kind of actual non-vertical orientation, see (31) and (32).

- (31) Inte bara i Värnamo Nyheter och Smålands Folkblad utan också i Expressen. Med feta *höga bokstäver* har man berättat om spökerierna i Reftele prostgård. (B76–77) ‘Not only in the Värnamo News and Småland Folkblad but also in the Express. In bold capital letters has the story been told about the haunting of Reftele deanery.’
- (32) Världens största bok är THE LITTLE RED ELF (Den lilla röda alfen), en berättelse i 64 verser av William P. Wood, som själv har ritat, framställt och tryckt *boken*. Den är 218 cm *hög* och 305 cm bred när den är uppslagen. (B76–77) ‘The world’s largest book is THE LITTLE RED ELF, a story in 64

verses by William P. Wood, who illustrated, produced and printed the book himself. It is 218 cm high and 305 cm wide when open.’

In example (31), *bokstäver* ‘letters’ refers to an object with the same orientation as a newspaper page, which need not actually be vertical. In example (32), the noun *bok* ‘book’ refers to an object whose second greatest dimension, when open (218 cm), need not actually be vertical. The vertical axis of objects such as books and letters is clear in utterances such as (33)–(34).

(33) [...] pricken över i [...] (B80–81) ‘[...] the dot over the i [... ]’

(34) Det står att läsa högst *upp* på sedan. (constructed) ‘It can be read at the top of the page.’

The dictionary SAOB, see section 5.1, provides a few examples of *hög* ‘high’ referring to an axis having a non-actual vertical orientation. The first one is the expression *högt i vind* (lit. ‘high in wind’) ‘tack’, referring to a manner of sailing against the wind. This use refers to a position on a non-vertical axis. As was the case concerning pages and books, a vertical axis being present is also clear from the use of *upp* ‘up’, as in *upp i vind* (lit. ‘up in wind’) ‘upwind’.

Finally, SAOB gives one example where it is claimed that any direction may be denoted, *hög relief* ‘high relief’. According to SAOB, *hög* ‘high’ in this case refers to an object, which protrudes greatly from the background. The expression has been borrowed from French *haut relief* ‘high relief’ and Italian *alto rilievo* ‘high relief’ which may indicate that the expressions can be considered rather unrepresentative of Swedish. However, I do believe that *hög* ‘high’ includes a quality of standing out from the background, and this is further discussed in section 5.4.8.

Ekberg (1997) suggests that the vertical axis is sometimes transformed, or “tipped”, into a horizontal axis. Ekberg uses the sentence *Han gick upp och ner i korridoren* ‘He went up and down the corridor’ to discuss the matter. Clearly, a person is walking a horizontal path, however, this is described by using adverbs (*upp* ‘up’ and *ner* ‘down’) referring to a vertical axis. Ekberg refers to Lakoff (1987:445–446) and to Johnson (1987:25) and explains that the act of “tipping” can take place thanks to our ability to mentally rotate an image schema, the image schema emerging from our kinetic experience.

Lang (1993) refers to such an orientation as “inherent orientation”. It is typical for books and pictures. Such objects have inherent tops, bottoms, in some cases beginnings and ends, due to the inscriptions or pictures on the objects. Inherent verticality is independent of the axes of Primary Perceptual Space. The object carries its verticality no matter how it is turned or held (Lang 1993:273–274).

In firm agreement with Lang, I would like to suggest that the use of *hög* ‘high/tall’ for books, letters, pictures and printed material is regarded as an

extended use, originating from how pictures are described. This means that the instances of *hög* ‘high/tall’ combining with *bokstäver* ‘letters’ and *bok* ‘book’ resemble combinations of *hög* ‘high/tall’ and nouns referring to real objects represented in pictures. The objects referred to as *bokstäver* ‘letters’ and *bok* ‘book’ borrow qualities from real objects represented in pictures, qualities that for the real objects are concrete but for the letters and books are abstract. Such a quality is canonical orientation.

Thus, the use of non-vertical *hög* ‘high/tall’ can be found either when an object has a canonical verticality, a use, which is not very abundant, after all, or in some specific cases concerning books, letters, pictures, magazines, columns, sailing direction, and reliefs, and possibly some other uses which I have not covered. It appears that *upp* ‘up’ can be used for non-vertical orientations to a greater extent than is the case for *hög* ‘high/tall’: *upp och ner i korridoren* ‘up and down the corridor’, *?högt i korridoren* ‘high in the corridor’, *?en hög korridor* ‘a high corridor’ (in the sense of ‘a long corridor’).

#### 5.4.2 The reference plane

In section 5.2.1, reference is made to the way in which Durrell (1988) distinguishes English *tall* and *high* by suggesting that *tall* refers to an inherent dimension, while *high* refers to a point along a vertical scale. I interpret this as implying that for *tall* the reference point is the bottom of the object, while for *high* it is a reference plane outside the object, usually the ground. According to the same study, German *hoch* ‘high’ covers both the sense of *tall* and the sense of *high*, so that the reference point may alternate between part of the object and being outside the object. This is in opposition to Lafrenz (1983), who suggests that the underside of the object is always the reference point for dimensional *hoch* ‘high’.

For Swedish I consider that regarding the reference point as being outside the object provides the most attractive solution. Such an approach unites the dimensional and the positional use, since the positional use must have a reference plane dissociated with the object. Argumentation in terms of corpus examples is offered in section 5.4.5.

The reference plane is, as Clark (1973) and Durrell (1988) among others state, most frequently the ground. Inside rooms, however, the reference plane is rather the floor. This is particularly evident in buildings with several storeys. A bookcase, situated on the second floor, may be referred to as *hög* ‘high’, being measured from the floor and not from the ground outside.

The reference plane is further idealised as being even. Where ground slopes steeply this may lead to objects being perceived as reaching equally high up and although they are of different length being referred to as having the same height, see Figure 2.

In order to describe the building in Figure 2, neither (35) nor (36) is well-formed.

(35) ?Baksidan är *högre* än framsidan. ‘The back is higher than the front.’

(36) ?Framsidan är *lägre* än baksidan. ‘The front is lower than the back.’

Utterances (35)–(36) do not give a fair representation of the building in Figure 2. In a brief survey, native speakers rejected this description. Instead, utterances (35)–(36) imply that the house is constructed so that the elevation of the back is higher than the front. In order to describe the house in Figure 2 utterances such as (37) are used, according to the native speakers.

(37) En av husets våningar ligger under de andra, men det är inte en hel våning. (constructed) ‘One storey of the house is situated below the others, but it is not a whole floor.’

When native speakers were asked to use the adjectives *hög* ‘high/tall’ and *låg* ‘low’ (which nobody did spontaneously), they (sometimes with hesitation) used the adjectives in a positional sense, such as in (38).

(38) Ett rum är *lägre* än de andra. (constructed) ‘One room is lower than the others.’

### 5.4.3 The direction of the vertical extension

Linde-Usiekniewicz (2002) mentions that objects such as curtains and lamps hanging on a rigid pole from the ceiling are not discerned as HIGH. Objects, to which HEIGHT is assigned, are directed upwards, which these objects are not. Geckeler (1997) regards the fact that a thread hanging from the ceiling is not referred to by French *haut* ‘high’ but by *long* ‘long’ provides an argument for the implicit direction of *haut* ‘high’. Rakhilina (2000) claims that objects, which are attached at some other object, and directed downwards, are not described as Russian *vysokij* ‘high’. As such scenarios turn out to be valid for Swedish *hög* ‘high/tall’, too, I would like to elaborate further on the direction of *hög* ‘high/tall’ and shed more light upon this interesting issue.

Continuing with adverbial expressions, there are some indications that the adjective *hög* ‘high/tall’ relates to an upward direction of the vertical axis. The adverbial expression *högt upp* ‘high up’ is not only grammatical but more or less lexicalised, and it is very frequent. *\*Högt ner* ‘high down’ is ungrammatical.

According to Talmy (1996), fictive motion is a prevalent feature in language. By this expression, Talmy means linguistic utterances that depict motion with no physical occurrence, such as *this fence goes from the plateau to the valley*. The object, referred to as *the fence*, does not move, yet

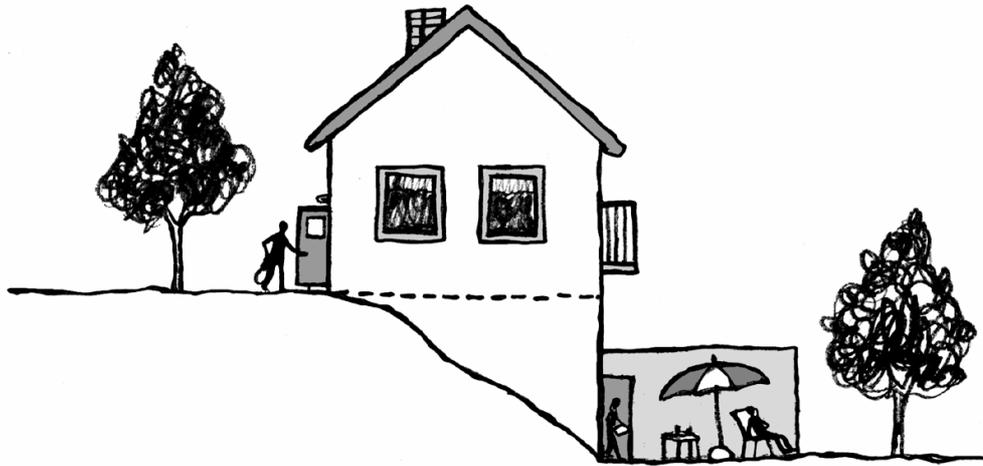


Figure 2. A two-storey building on a slope.

the verb *go* is used in combination with a preposition *from* indicating a starting point. Fictive motion is contrasted to factive motion, which refers to linguistic utterances depicting motion with physical occurrence.

The results of any search for arguments for an upward direction of the vertical axis concerning *hög* ‘high/tall’ in the corpus can be divided into three groups. The first involves factive motion, the second one is associated with fictive motion, and the third one deals with point of support versus point of attachment.

Starting with factive motion, there are quite a substantial group of combinations of *hög* ‘high/tall’ and a noun, where the noun refers to growing objects, such as trees, grass, and plants, in the corpus. The number amounts to 150 of 770 instances. Such a case is shown in (39).

- (39) Den omgavs av buskage och *höga växter* och det hördes ett svagt vattensorl.  
(B76–77) ‘It was surrounded by shrubbery and tall plants and there was a gentle sound of rippling water.’

These objects grow in an upward direction. In some cases, the growth (growing) is actually mentioned, and the result is referred to as *hög* ‘high’, as in (40).

- (40) Rökar steg mot skyn från gårdarnas skorstenar och kring de låga längorna hade *almar* och *askar* rotat sig och hunnit växa *höga*. (B80–81) ‘Smoke was rising from the chimneys of the farmhouses and around the low rows of houses elm and ash had rooted and were already tall.’

In example (40), the adjective *hög* ‘high’ is used to refer to a resultative state (even if not a final state). In other examples, the growing potential is stressed:

- (41) På borggården stod *träden höga* och fulla av växtkraft. (B76–77) ‘In the courtyard the trees stood tall and full of growth.’

Other objects that do not grow organically are also described as growing. Such an object is the mansion in example (42).

- (42) Vecka för vecka växte den nya ståtliga *herrgården sig högre*. (B80–81)  
‘Week by week the magnificent new manor house grew higher.’

Thus, examples (40)–(42) include factive motion. According to Dirven and Taylor (1988), *tall* reflects dynamicity. An object that is *tall* has acquired its vertical extension either by natural growth or by human activity. Apart from examples concerning plants, trees, and houses, factive motion is not included in the uses of *hög* ‘high/tall’.

There are also examples of fictive motion in the corpus. Two such uses are shown in (43)–(44).

- (43) Det var långväga och *husen växte högre och högre* längs gatorna. (B80–81)  
‘It was a long way and the houses grew higher and higher along the streets.’
- (44) På bägge sidor om sig har han *berg*. De reser sig *högre och högre*, stigen smalnar, till slut sitter han fast i en törnrossnår och kan inte komma loss. (B76–77) ‘On both sides he has mountains. They rise higher and higher, the path narrows, at the end he is stuck in briar patch and is not able to get free.’

The objects (houses and mountains respectively) are described as growing higher and higher as a person moves along a path. Talmy (1996) describes this type of linguistic expressions in terms of frame-relative motion. Instead of referring to an observer as moving relative to the observer’s stationary surroundings (which is what is “really” happening), languages refers to the observer as stationary and the surroundings as moving relative to the observer. Both the houses and the mountains have a canonical vertical orientation. In (43), the verb referring to motion is *växa* ‘grow’. If a direction is involved in the meaning of *växa* ‘grow’, this is probably upwards, even if plants and also animals and humans may grow in other directions as well, in less prototypical cases. In (44), the verb referring to motion is *reser sig* ‘rises’, which has a clear upward direction. The occurrences, where fictive motion is involved, are very few, but form an important bridge in order to understand whether *hög* ‘high/tall’ has a direction.

The dictionaries SAOB, *Illustrerad svensk ordbok* and *Nusvensk ordbok* partly make use of fictive motion in order to define the adjective *hög* ‘high/tall’. SAOB reads: “som går l. räcker (så l. så) långt upp” ‘which goes or reaches (so or so) far up’, while *Illustrerad svensk ordbok* says: “som

reser sig långt upp... som reser sig över omgivningen” ‘which rises far up... which rises above the surroundings’. Nusvensk ordbok reads: “som ‘räcker’ l. befinner sig högt” ‘which reaches or is situated high up’.

The objects that have an upward direction, either by growth (39)–(41), or by continuous construction (42), form an important group, together with the small group where fictive motion is expressed (43)–(44).

Linde-Usiekniewicz (2002) and Geckeler (1997) write that all objects, referred to as HIGH, are comprehended as having an upward direction. Their idea would then include objects, for which neither factive, nor fictive motion is expressed linguistically. A combination of adjective and noun such as (45) would be sufficient in order to talk about a direction.

- (45) Den är omotiverat placerad i den trånga sängkammaren vid sidan av den höga byrån med alla de små utsirade lådorna. (B80–81) ‘It is placed without justification in the narrow bedroom, next to the high chest of drawers with all the small decorated drawers.’

Linde-Usiekniewicz’s and Geckeler’s idea can be related to an act of mental scanning, from the bottom to the top. This will not be elaborated any further, although I find it interesting. Instead, I would like to relate such an upward direction to point/plane of support.

One of the differences between a curtain, the example evoked by Linde-Usiekniewicz, and the chest of drawers referred to in (45), is that while the topmost seam of a curtain is attached to the rod to prevent it from falling towards the centre of the earth, the chest is supported by its lower end against the floor. The force they are contending against is of course gravity, while the forces preventing them from falling are counterforces.

For the chest, the point of support is on the floor. This point coincides with the reference plane for *hög* ‘high/tall’. If the chest is to be measured, this can be performed from the point of support/the reference plane. In the corpus, most occurrences of *hög* ‘high/tall’ describe situations where the ground or the floor is the point of support. Figures and a more elaborate discussion are given in section 5.4.5.

For the curtain, the point of attachment is at its upper end. *Lång* ‘long’ is usually not considered to have neither direction, nor reference plane. It is possible, however, to think that if any measurement is made of the curtain this will be from the point of attachment. Having no direction could, for vertical objects, perhaps mean “going with the flow”, thus conforming with the direction of gravity. Note that curtains can be referred to by using a linguistic expression containing downward fictive motion:

- (46) Gardinen *räcker* nästan ända *ner* till golvet. (constructed) ‘The curtain almost reaches down to the floor.’

The upward factive motion present in some situations depicted in the corpus by using the adjective *hög* ‘high/tall’, the upward fictive motion expressed in the corpus with the same adjective, and the concept of measuring from

the point of support/attachment all indicate some correspondence with the presumed upward direction of *hög* ‘high/tall’ in the physical world.

#### 5.4.4 *Hög* ‘high/tall’ combines with nouns referring to objects with a canonical vertical orientation

In order to discuss orientation, the uses where *hög* ‘high/tall’ is used in its dimensional sense needs to be separated from the instances of use in its positional sense. In the corpus, there are 770 instances of dimensional *hög* ‘high/tall’ and 132 instances of positional *hög* ‘high’. The total figure for *hög* ‘high/tall’ including both dimensional and positional senses is thus 902. In the elicitation test, there were 30 nouns which combined with *hög* ‘high/tall’ would impose a dimensional interpretation and 2 nouns, which would require a positional interpretation. Altogether, therefore, the elicitation test contained 32 nouns.

In the following discussion, I will concentrate upon *hög* ‘high/tall’ in its dimensional sense. Disregarding orientation is justified by its lack of relevance, if merely the position of an object is taken into account. Positional uses of *hög* ‘high’ will be discussed in section 5.4.11, but they will be touched upon prior to that section, since positional *hög* ‘high’ shares some features with dimensional *hög* ‘high/tall’.

As was mentioned in Chapter 4 (Methodology and data), although exact numbers are given, they are merely intended to illustrate the relative sizes of the various groups.

With very few exceptions, the nouns, combined with *hög* ‘high/tall’ in its dimensional sense in the corpus refer to objects with a canonical vertical orientation in which one side is denoted as the top. Such nouns are *stol* ‘chair’, *slott* ‘castle’, and  *fjäll* ‘mountain’. The results from the elicitation test indicate that all nouns, which combined with *hög* ‘high/tall’ in such a way that the adjective would require dimensional interpretation, refer to objects with a vertical orientation.<sup>12</sup> Such nouns are *skyskrapa* ‘skyscraper’, *tröskel* ‘threshold’ and *berg* ‘mountain’. Lang (1993) prefers to describe mountains and similar objects as having “fixed” orientation. However, I include the orientation of such objects in canonical orientation. Only 6 nouns in the corpus, i.e. a very small group, lack a canonical vertical orientation. These are *hål* ‘hole’, *isblock* ‘block of ice’, *presenning* ‘tarpaulin’, *täcke* ‘bedcover’, *bok* ‘book’ and *bokstäver* ‘letters’. *Relief*

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<sup>12</sup> Two informants gave the noun *stege* ‘ladder’. It can be discussed whether the object to which this noun refers has a canonical vertical orientation. The decontextualized frame of the elicitation test does not provide any helpful information. A step-ladder has a top and a bottom. A more old-fashioned wooden ladder usually has a top and a bottom, where the top is marked by the two upright bars being a little longer, while a modern metal ladder lacks such details. Here, I have counted *stege* ‘ladder’ as referring to an object with a canonical vertical orientation.

‘relief’ from SAOB and Nusvensk ordbok also belongs to this group. These cases are treated in 5.4.9 (*presenning* ‘tarpaulin’), 5.4.13 (*täcke* ‘bedcover’ and *hål* ‘hole’), and 5.4.1 (*bok* ‘book’, *bokstäver* ‘letters’ and *relief* ‘relief’)

In (47), an example of an object with canonical orientation is given.

- (47) Läsesalen i Bibliothèque Nationale är med rätta berömd. Sju meter *höga bokhyllor* täcker väggarna; där ovanför sitter gamla blekta väggmålningar och i taket nio kupoler med matta glasfönster som släpper in ljus. (B80–81)  
 ‘The reading room at the Bibliothèque Nationale is justifiably famous. Book shelves seven metres high cover the walls; above these are old faded murals and in the ceiling nine domes with frosted glass windows admit light.’

For objects with a canonical position and whose corresponding nouns are combined with *hög* ‘high’ there seems to be two possibilities in the specific case. Either the actual vertical extension and the canonical vertical extension coincide, as in (47), or the actual vertical extension and the canonical vertical extension conflict. An example of this was given in (30), repeated here as (48).

- (48) Det *höga gräset* var gult och vått och hade vikt sig mot marken, platt, som efter ett slagregn (B80–81) ‘The long grass was yellow and wet and had flopped down towards the ground, flat, as after a downpour.’

The grass is folded and lies flat. Still, the noun *gräs* ‘grass’ is combined with *hög* ‘high’.

Analysing the French dimensional adjectives, Spang-Hanssen (1990) describes the distinction between actual and canonical verticality in other terms. The study proposes an initial mental rotation of the pertinent object, so that the actual and the canonical orientation coincide in the specific case. In some cases, *hög* ‘high’ may combine with nouns referring to objects with an extension that is not canonically vertical, but actually vertical. We may imagine a situation where a lying bookcase is to be stored in the attic, with a sloping roof. This is illustrated in Figure 3. An utterance as (49) is possible.

- (49) Bokhyllan är för *hög* för att kunna skjutas ända in. (constructed) ‘The book shelf is too high to be pushed all the way in.’

#### 5.4.5 *Hög* ‘high/tall’ combines with nouns referring to objects located on the ground

As mentioned in section 5.2.1 on related research, a certain point of the object or a point outside the object serves as a reference point (Durrell 1988 among others), while some studies prefer to talk about a reference plane (Clark 1973 among others). I have chosen to separate the reference plane from the object, see section 5.4.2.



Figure 3. Lying bookcase

The occurrences of *hög* ‘high’ in the corpus show that *hög* ‘high’ is often combined with nouns that refer to objects located on the ground. Such uses are *hög snödriva* ‘high snowdrift’, *högt hus* ‘tall building’ and *högt träd* ‘tall tree’. A closer look, however, reveals that these uses differ from each other in terms of the relation between the lowest point of the object and the reference plane.

For some uses, the separation between the lowest point of the object and the reference plane is only an abstract distinction, since measuring the vertical extension from the ground or from the lowest point of the object would not make any difference. Such examples are (50) and (51).

(50) Där stod den, *buren*, för vars skull de hade kommit. Den såg ut som de burar med vilda djur, som man förr kunde få gå och titta på i pausen på en cirkusföreställning. Den var ungefär tre meter lång och två meter bred men bara halvannan meter *hög*. (B76–77) ‘There it was, the cage that was the object of their trip. It looked like the cages with wild animals that you used to be able to go and look at in the interval at the circus. It was about three metres long and two metres wide but only half a metre or so high.’

(51) Han hade bestämt sig vid midnatt och smugit sig in i lagerrummet, tagit vad han kunde komma åt och gått ut från Stationen på ett ställe där en *hög snödriva* hjälpte honom att komma över ståltrådsstängslet. (B76–77) ‘He had decided by midnight and sneaked into the storeroom, taken what he could

get his hands on and walked out from the station at a place where a high snowdrift helped him to cross the steel wire fence.’

Both the cage and the snowdrift of examples (52) and (53) are located directly on the ground.

Other objects may have parts that descend to the ground, such as houses and trees:

- (52) Utan några ord trevade han i mörkret efter sin morgonrock och gläntade försiktigt på rullgardinen, där ute låg gården tyst, bara någon enstaka lampa tänd i det *höga gathuset*. (B76–77) ‘Without a word he fumbled in the dark for his dressing gown and carefully opened the blind a little; out there the yard was quiet, only the occasional light in the tall block facing the street.’
- (53) Det var en dystert mörk skog av *höga granar* med långa grå stammar där de torra undergrenarna spretade. (B76–77) ‘It was a gloomily dark forest of tall firs with lofty grey trunks whose dry lower branches straggled.’

The building most probably has foundations going below the ground level, and the firs must have roots in order to stand steadily. This means that the lowest point of the object (the point that is the closest to the centre of the earth) is below the ground. *Hög* ‘high/tall’ is not measured from the lowest point (the point closest to the centre of the earth) but from ground level. Thus, it is clear that the reference plane, in these cases, is the ground rather than the bottom of the objects.

There are examples of objects that are neither located on nor measured from the ground in the corpus. One such example is (54).

- (54) *Höga klädskåp och bokhyllor* stod emellan sängarna, men några väggar fanns inte emellan dom. (B80–81) ‘Tall wardrobes and bookcases stood between the beds, but there were no walls separating them.’

The furniture of (54) is located on the floor in a room, and not directly on the ground. The floor is comprehended as the reference plane. This can be regarded as idealisation of the floor as the ground. Outdoors, we tread upon the ground while indoors on the floor.

An interesting case concerns waves and water:

- (55) Nu gick *vågorna höga* också på den relativt skyddade Kyrkfjärden. (B80–81) ‘Now the waves were running high even in relatively sheltered Church Bay.’

Regarding the waves, the water surface when calm probably constitutes an abstract reference plane. It is also possible that the trough between two waves (during hard weather) is the reference plane, or, that a point halfway from the trough to the top of the wave forms a reference plane. Note that for ships, boats etc., the water level and not the ground is the reference plane.<sup>13</sup>

<sup>13</sup> When measuring summits, the measure is *X meter över havet* ‘metres above sea level’.

Since ships stick down under the water level, the reference plane is not identical with a position at which the object “starts”.

Furthermore, there are examples of objects that are located neither on the ground, nor on the floor. Such objects are windows, mirrors, chimneys, backs of seats and glasses. One example is given in (56).

- (56) Jag såg ut över det vackra långbordet med vit duk och gula rosor och levande ljus i *höga silverstakar* som speglade sej i de mörka fönsterglasen. (B76–77)  
 ‘I looked down the beautiful long table with the white tablecloth and yellow roses and candles in tall silver candlesticks that were reflected in the dark windowpanes.’

The candlesticks of (56) are located on a table. Of the 770 dimensional uses of *hög* ‘high/tall’ in the corpus, the adjective is used to refer to an object located elsewhere than on the ground or on the floor in 127 cases. They may be located on a table, like the candlesticks above, on a roof, or they may be part of a vertical plane, such as a window in a wall. The object may, in a very limited number of cases, actually hang, too, as is the case for mirrors. This special case is discussed further in section 5.4.9. While these objects lack the quality of being located on the floor, they do possess other qualities among those mentioned in section 5.3. Apart from having a canonical vertical orientation, their vertical dimension is the maximal, see section 5.4.6, where this quality is discussed.

In example (56), the table serves as the reference plane. In other cases, such as for a window, there is no physical plane to serve as the reference plane:

- (57) *Höga fönster* på ömse sidor om dörren var täckta av ribbade luckor. (B80–81)  
 ‘Tall windows on each side of the door were covered by slats.’

When *hög* ‘high’ combines with nouns referring to objects that are not placed directly on the ground or on a physical plane that may serve as reference plane the use turns out to be ambiguous. As pointed out by Lyons (1977:701), Lafrenz (1983:89), and Durrell (1988:109) concerning *high* and *hoch* ‘high’, this is the case for windows. Thus, the example (57) can either refer to windows having an elevated position in relation to the ground, see Figure 4, or to their great vertical extension, see Figure 5. The first (positional) interpretation makes use of the ground as its reference plane. The second (dimensional) interpretation makes use of another plane as its reference plane, namely an abstract plane, located at the lower endpoint of the window. The first of these uses of *hög* ‘high’ includes the quality of the reference plane being the ground, while this is lacking in the second.

Thus, the reference plane is also present in positional uses of *hög* ‘high’. In (57), we see a positional use, where the ground is regarded as the zero point from which the measuring starts.

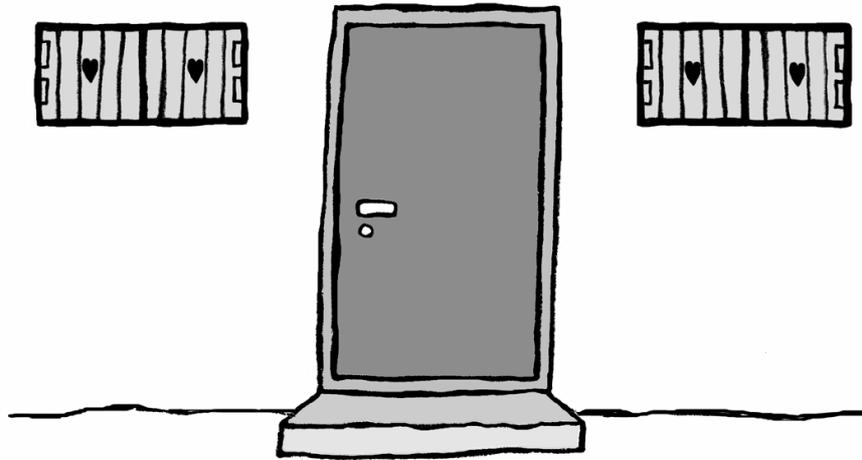


Figure 4. Windows in an elevated position

- (58) Solen gick ner i en kopparfärgad himmel med stänk av rött och *höga*, lätta *strömoln*. (B76–77) ‘The sun set in a copper-coloured sky with streaks of red and high, light scattered clouds.’

There are only two examples of positional uses where the reference point is not the ground. In both cases, the reference point is the floor. The first example is shown in (59).

- (59) Tämlichen ointresserat hörde Lotta Bachs allhelgonakantat från Petöfis *höga* kupiga *stucktak* till slut och gick sen ner till kajen och broarna för att fördriva tiden. (B76–77) ‘Rather disinterestedly Lotta listened to Bach’s All Saints’ Day Cantata to the end from Petöfi’s high rounded stucco ceiling and then went down to the quay and the bridges to pass the time.’

The example tells about a woman sitting in a Hungarian café, listening to music pouring out from speakers located in the ceiling. I presume that the ceiling is referred to as *hög* ‘high’ using the floor, and not the ground outside, as the reference point. The second example concerns a shelf, also presumably using the floor as the reference point.

#### 5.4.6 *Hög* ‘high/tall’ combines with nouns referring to objects whose vertical dimension is the maximal one

As indicated in section 5.2.1, Goy (2002) claims that Italian *alto* ‘high’ either refers to objects whose maximal dimension is vertical, to objects whose vertical dimension is equal to its horizontal dimension, or to objects whose vertical dimension is as big as a human being or bigger.

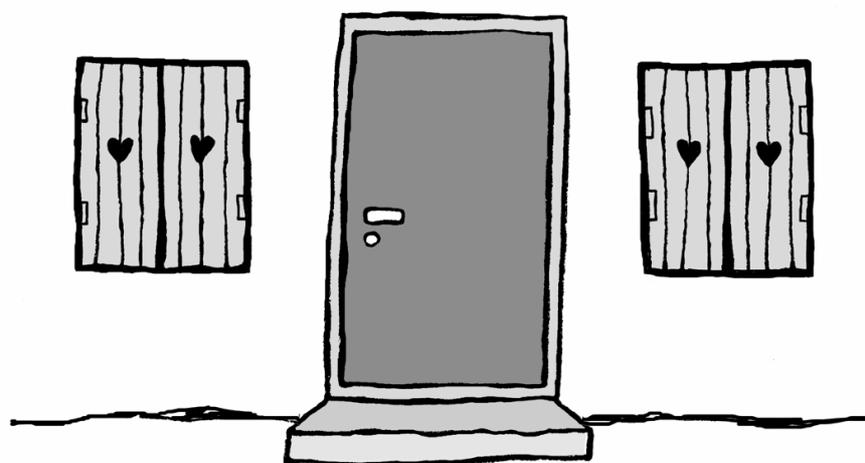


Figure 5. Windows with great vertical extension

In my corpus, the adjective *hög* ‘high’ is combined with nouns that clearly refer to objects with their maximal dimension along the vertical axis in a majority of the cases (420 out of 770 cases). In the elicitation test, nearly half of the nouns with which *hög* ‘high’ would be used in a dimensional sense referred to objects whose maximal dimension clearly is vertical (13 out of 30). Instances, where the vertical dimensions cannot be the maximal ones were *tröskel* ‘threshold’ and *snö* ‘snow’ (1 occurrence each).

There is a further group (265 out of 770 instances in the corpus) where it is uncertain whether the dimension, referred to by *hög* ‘high/tall’, is the maximal dimension. Such uses refer to mountains, houses, small inner rooms, stones, the crown of a tree, letters, certain plants such as bushes, gates, openings, boxes, and ant-hills. Correspondingly, in the elicitation test, it can be discussed whether *berg* ‘mountain’ (3 occurrences), *kulle* ‘hill’ (1 occurrence), *hus* ‘house’ (8 occurrences), and *byggnader* ‘buildings’ (2 occurrences) have their maximal dimension along the vertical axis. These nouns account for 14 occasions out of 30.

Moreover, in 361 of the 770 instances in the corpus *hög* ‘high/tall’ combines with a noun referring to an object whose vertical dimension is as big as or bigger than the human being. In the elicitation test, the number of such nouns was 25 out of 30. Additionally, there are a number of instances, 90 examples in the corpus, where it is probable that the noun, combined with *hög* ‘high/tall’, refers to an object with such a vertical dimension. Such uses refer to walls, hedges, and water. Correspondingly, *kulle* ‘hill’ and *stapel* ‘pile’ (altogether 3 occurrences out of 30) from the elicitation test probably refer to objects having a vertical dimension, that is as big as, or bigger, than a human being.

A great number of instances co-occur in both groups, which means *hög* ‘high/tall’ combines with a noun referring to an object whose vertical dimension is at the same time maximal and as big as or bigger than the human being. Such uses include for instance trees, skyscrapers and doors.

Concerning the cases where *hög* ‘high/tall’ neither refers to an object whose vertical dimension is the maximal one nor to an object which is as big as, or bigger, than a human being, it seems as if some additional quality is required, apart from the quality of a canonical vertical orientation, see section 5.4.4, the quality of being located on the ground, see section 5.4.5, and the quality of being made of rigid material, see section 5.4.9. One such additional quality is fictive or factive motion, see section 5.4.3, another is the quality of possessing a functional top, see section 5.4.10, yet another is mentioned in section 5.4.13, which I have headed Less prototypical uses – the borders of *hög* ‘high’.

The single quality of being as big as, or bigger, than the human being, is discussed in section 5.4.7.

As has already been mentioned, in my corpus the adjective *hög* ‘high’ is combined with nouns that clearly refer to objects with their maximal dimension along the vertical axis in a majority of the cases (420 out of 770 cases). Such examples are shown below in (60)–(61).

- (60) *Höga vaktorn*, utrustade med strålkastare vilkas ljuskäglor rytmiskt skar genom den sydliga nattens mörker. (B80–81) ‘High watchtowers, equipped with floodlights whose cone-shaped beams rhythmically cut through the dark of the southern night.’
- (61) På sommaren äter vi utomhus under de gamla *gråpäronträden*. De är så *höga* att man måste vänta tills päronen är övermogna och faller ner på gräsmattan innan man kan smaka på dem. (B76–77) ‘In the summer we eat outside under the old pear trees. They are so high that you have to wait until the pears are overripe and fall on the lawn before you can taste them.’

There are also less frequent examples where *hög* ‘high/tall’ clearly refers to a non-maximal dimension of the object. There are 173 instances of this type in the corpus. One example is given in (21), repeated here as (62).

- (62) *Muren* som skär Berlin i två delar från norr till söder är 15 km lång, 0.50 à 1 m tjock, mellan 2 och 4 meter *hög* och har en total volym av 9.500 kubikmeter. (B76–77) ‘The wall that divides Berlin from north to south is 15 km long, 0.5 to 1 metre thick, between 2 and 4 metres high and has a total volume of 9,500 cubic metres.’

In example (62), *hög* ‘high’ refers to the second maximal dimension of the object. In the elicitation test, the already mentioned occurrences of *snö* ‘snow’ and *tröskel* ‘threshold’ (2 occurrences out of 30) correspond to this group. Thus, the group, where *hög* ‘high/tall’ clearly refers to a non-maximal dimension of the object is much greater in the corpus, than the corresponding group in the elicitation test. Collocations of the adjective *hög*

‘high/tall’ and a noun that corresponds to an object thought of as *hög* ‘high/tall’ involves some degree of redundancy. The corpus consists of authentic examples in a context, and collocations such as *hög skyskrapa* ‘high skyscraper’ are less frequent than collocations such as *högt hus* ‘high building’, probably since the former collocation shows redundancy. In the elicitation test, nouns were asked for in a decontextualised situation. When asked to name objects, that are *hög* ‘high/tall’, it is more likely that objects where the vertical dimension is the maximal one are named. The corresponding nouns may not have been combined with *hög* ‘high/tall’ in a more “natural” context, due to the redundancy expressed by the combination. The corpus includes this “natural” context and thus, objects whose maximal dimension is not the vertical one are more likely to be described as *hög* ‘high/tall’ here than in the elicitation test (also see section 4.2.1 in Chapter 4, Data and methodology, where this is discussed in relation to Ungerer and Schmid 1996).

Finally, the corpus contains a group (265 instances) where it is uncertain if the dimension referred to by *hög* ‘high/tall’ is the maximal dimension. Among these uses, nouns referring to mountains, houses, small inner rooms, stones, the crown of a tree, letters, certain plants such as bushes, gates, openings, boxes, and ant-hills, can be found. One example is given in (63).

- (63) Han mindes att det fanns flera sträckor med ganska jämn mark mellan åsar fram till de *höga bergen* nere vid stranden. (B76–77) ‘He remembered that there were many stretches with fairly even ground between ridges up to the high mountains down at the beach.’

As already has been mentioned, in the elicitation test, this group amounted to 14 out of 30 nouns.

Furniture forms an interesting group. Once combined with *hög* ‘high’, nouns such as *skåp* ‘cupboard’, *byrå* ‘chest of drawers’, and *bokhylla* ‘bookcase’ are comprehended as referring to objects whose vertical dimension is the maximal one. In (64), one such example is shown.

- (64) En lampa brann på en *hög byrå* i farstun; det var tänt också i salongen, i förmaket och i matsalen. (B80–81) ‘A lamp was lit on a tall chest of drawers in the hall; there was also light in the lounge, in the drawing room and in the dining room.’

This piece of furniture comes in various heights, thus enabling us to consider how these pieces are described according to their proportions. The chest in Figure 6 can be referred to as *hög* ‘high’, while the chest in Figure 7 would probably not be referred to as *hög* ‘high’, unless with a measure phrase or in an interrogative phrase, thus referring to a neutral use of the adjective, involving an unmarked sense of the adjective.

Some languages have a lexicalised item for ‘minimal vertical extension’. This is the case for Yucatec Maya, according to Stolz (1996), where *hay*

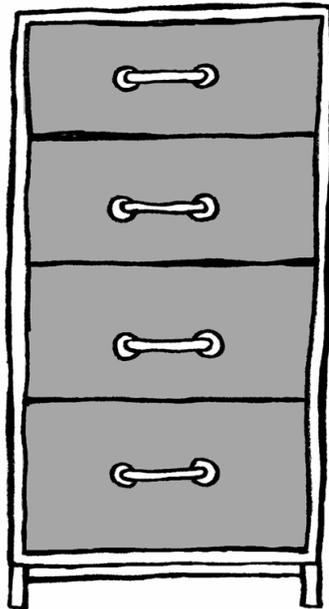


Figure 6. A chest whose vertical dimension is the maximal one

refers to such a dimension. This may be associated with Spang-Hanssen's (1990) analysis of the naming of an object's dimensions. The first issue in his algorithm is to find out whether there is a dimension with very limited extension compared to the greatest dimension. If there is, this will be labelled *épaisseur* 'thickness'. Note that this will also be the case if the dimension is vertical. This procedure is for non-oriented objects and oriented objects that lack interior measurements. Both Maya *hay* and French *épais* may refer to a minimal extension, regardless of orientation too. According to Lang (2001), HIGH is not an issue if the vertical dimension is the minimal one. For Swedish, *hög* 'high/tall' in the collocation *hög tröskel* 'high threshold' does refer to a vertical and minimal extension. I consider *hög tröskel* 'high threshold' a less prototypical use, and it is further discussed in section 5.4.13. Note, however, that it was mentioned, but only as one noun out of 30, in the elicitation test.

#### 5.4.7 *Hög* 'high/tall' combines with nouns referring to objects that are as big as human beings or bigger

In my corpus, there are 361 out of 770 instances of *hög* 'high/tall' combining with a noun referring to an object whose vertical dimension is as big as or bigger than a human being. It has already been pointed out that of

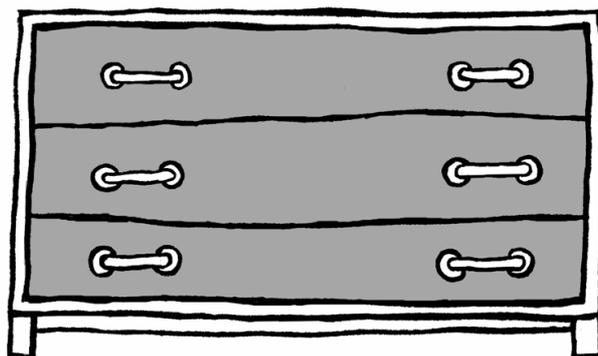


Figure 7. A chest whose vertical dimension is not the maximal one

30 nouns in the elicitation test, 25 referred to objects of the same size or bigger than human beings in their vertical dimension. In addition, there are a number of instances, 90 examples, where it is probable that the noun, combined with *hög* 'high/tall', refers to an object with such a vertical dimension. Concerning the elicitation test, 3 of 30 nouns referred to objects where it was probable that the vertical dimension is the maximal one. In (65) an example is given where the vertical dimension is clearly bigger than a human being.

- (65) Åtminstone – för det blåste kallt när den *höga* postgula *färjan* stampade sej fram över älvens breda kvällsmörka vatten. (B76–77) 'At least – because there was a cold wind as the tall yellow ferry chugged its way across the river's wide dark water in the evening light.'

As mentioned earlier, there are a number of examples where it is unclear, although probable, that the vertical extension exceeds human height. These examples refer to objects such as walls, hedges, and water:

- (66) Men Elena gick i rask takt, som om hon hade ett bestämt mål, och tittade på de vackra villornas fasader och de *höga*, vackra *murarna* runt de hus som i likhet med hennes mans var avskärmade från trottoaren, mycket privata och tysta. (B76–77) 'But Elena walked at a quick pace, as if she had a specific destination, and looked at the beautiful facades of the houses and the high, beautiful walls surrounding those houses, which, like her husband's, were shielded from the pavement, very private and quiet.'

- (67) Solstrålarna silade genom de *höga häckarna*. (B80–81) ‘The sun’s rays filtered through the tall hedges.’
- (68) Nu gick *vågorna höga* också på den relativt skyddade Kyrkfjärden. (B80–81) ‘Now the waves were running high even in relatively sheltered Church Bay.’

Walls and hedges are probably not regarded *hög* ‘high/tall’ if they are smaller than a human being. I am not so sure about waves but, intuitively, it seems to be the case here, too, that *höga vågor* ‘high waves’, *hög sjö* ‘heavy seas’ and *höga dyningar* ‘heavy swells’ refer to objects greater than the human being.

Concerning the cases in which *hög* ‘high/tall’ neither refers to an object whose vertical dimension is the maximal one nor to an object which is as big as, or bigger, than a human being, the objects referred to display at least one of the following qualities: factive or fictive motion (*häckar* ‘hedges’, *vågor* ‘waves’), see section 5.4.3, a functional top (*(fiol)stall* ‘bridge’ (of a violin)), see section 5.4.10, or a quality which will be discussed tentatively in relation to *hög tröskel* ‘high threshold’ in section 5.4.13.

#### 5.4.8 *Hög* ‘high/tall’ combines with nouns referring to objects profiled against their background

As mentioned in section 5.2.1, *tall* objects stand out from the background as distinct and discontinuous with their environment (Dirven and Taylor 1988). This quality describes a certain group of the objects whose corresponding nouns combine with *hög* ‘high/tall’ in the corpus. Nouns which are associated in synonymous, hyponymous or hyperonymous or part-whole relations to *byggnader* ‘houses, buildings’ (108 instances), *berg* ‘mountains’ (103 instances), and *träd* ‘trees’ (83 instances) form the leading three groups of the corpus (including both dimensional and positional uses the corpus contains a total of 902 instances). In the elicitation test, the group of *byggnader* ‘houses, buildings’ amounted to 14 nouns whereas the group of *berg* ‘mountains’ had 4 members (out of 30). There were no nouns referring to trees in the elicitation test. In (69), one example is shown. The context is that the belfry can be struck by lightning in case of a thunderstorm.

- (69) Han tyckte inte om det; *klockstapeln* var *hög*, och åskledaren, beställd för flera månader sedan, var ännu inte levererad. (B76–77) ‘He didn’t like it: the belfry was high and the lightning conductor, ordered several months ago, still hadn’t been delivered.’

The quality of the object being as big as a human being or bigger is a matter of size, the quality of the object’s vertical dimension being the maximal one is a matter of proportion, and the quality of the object being profiled against the background is a matter of relation to the setting. Many of the objects

profiled against their background are as big as a human being or bigger, and the vertical dimension is also the maximal one. This is the case for a tower. For a stack of books, however, the object is not as big as a human being, see (70).

- (70) När han sonderat terrängen lade han böckerna i tre *höga travar*, lästurordningen. (B76–77) ‘When he had surveyed the area he put the books in three tall piles, in order of priority for reading.’

From the corpus context, it is rather hard to deduce information about whether an object stands out from its background or not. Therefore, I have not given any numbers here, but merely discuss objects in terms of types of object which probably do stand out from their background.<sup>14</sup>

Slender, erect objects such as *torn* ‘tower’, *stapel* ‘stack’, and *mast* ‘pole’ form a minor but definitely distinguishable group in the corpus (55 instances out of 902). Note, however, that some members of other groups (buildings, trees), such as a skyscraper or a fir, could be considered to belong here although I have counted each example only once when distinguishing between these noun groups.

In the elicitation test, this group of tall, slender objects was more prominent than in the corpus. The nouns included *mast* ‘pole’ (3 occurrences), *torn* ‘tower’ (2 occurrences), *stapel* ‘pile’ (2 occurrences), *skyskrapa* ‘skyscraper’ (2 occurrences), *lyftkran* ‘crane’, *Eiffeltornet* ‘the Eiffel tower’, *Wenner-Gren Center* ‘Wenner-Gren Centre’ (a tall building with a rather solitary appearance), in all 12 out of 30 nouns. It can be assumed that slender, erect objects are easily evoked when a person is asked to name objects that are *hög* ‘high’, while in the corpus, it may be considered tautological to describe such objects as *hög* ‘high’, as was mentioned in relation to objects whose maximal dimension is vertical, see section 5.4.6. In (69), an example from the corpus is shown.

Most of the above mentioned objects are as big as or bigger than a human being, but this need not be the case, as was shown in (70).

The slender, erect objects are as big as or bigger than human beings in 47 cases and smaller in 8 cases.

To imagine a scenario where an object is not at all profiled against the background, and describe this object as *hög* ‘high’, does not appear easy. In (71), an example is given in which a jar is concealed by other objects, yet called *hög* ‘high/tall’, a description which sounds a bit odd.

- (71) (?)Längst in i kylskåpet, till största delen skymd av mjölkpaket och gammal mat, hittar hon en *hög tillbringare* med druvjuice. ‘Right at the back of the

<sup>14</sup> It can be discussed, however, if the semantics of certain nouns, such as *torn* ‘tower’ and *stapel* ‘stack’, include a quality of standing out from the background. If books are placed on top of each other in a box (as when packing when moving), forming several stacks that are so close to each other that the stacks together fill the whole box, we would probably not speak of the books as in stacks.

fridge, almost hidden by milk cartons and old food, she finds a tall jug of grape juice.’

There is an intuitive feeling that it is not possible to refer to the jar as *hög* ‘high’ before the person has produced it from the crowded fridge shelf.

#### 5.4.9 *Hög* ‘high/tall’ combines with nouns referring to objects made of rigid material

As indicated in section 5.2.1, Rakhilina (2000) claims that an object needs to have a fixed shape in order to be described by Russian *vysokij* ‘high’. A piece of string is not described as *vysokij* ‘high’.

In order for an object, which is supported at its lower end, to maintain its verticality, the object needs to be made of a rigid material, a quality which corresponds roughly to Rakhilina’s fixed shape. In fact, in some cases objects that do hang, but are made of a rigid material, such as a mirror, are referred to as *hög* ‘high/tall’ in Swedish, see (72).

- (72) Jag stod framför härden och tände ett enda ljus framför den *höga spegeln* och där såg jag plötsligt någonting som fick mig att stelna till, någonting som formades ur dunklet till en vidrig mask innan det antog hela sin tredimensionella verklighet, en väderbiten dödskasse, pinad av väder och vind. (B76–77) ‘I stood in front of the fireplace and lit a single candle in front of the high mirror and there I suddenly saw something that made me freeze, something that out of the darkness took on the shape of a horrid mask before it assumed all of its three-dimensional reality, a weather-beaten skull, tormented by weather and wind.’

Note that a mirror would be able to maintain its verticality even when not attached (on a wall etc.), if placed on the floor leaning against the wall.

One example in the corpus refers to a tarpaulin. This is hanging at the rear of a carriage that will be used to transport a coffin with a dead body. The grief of the family has made the son take the unusual action of writing *mor är död* ‘mother is dead’ on the tarpaulin, so that everyone in the city through which the carriage will drive will notice. The tarpaulin is wide and the only way to render the text visible is to hang the tarpaulin on high supports to trail along the ground like the train of a dress.

- (73) *Presenningen* står *hög* och svart i aktern, bokstäverna är breda och klara. (B76–77) ‘The tarpaulin is erected high and black at the rear, the letters are wide and clear.’

The combination of the noun *presenning* ‘tarpaulin’ with *hög* ‘high/tall’ is unexpected. The object that the noun refers to is normally used to cover objects such as cars and boats and protect them from rain. As such, the material is supple and adapts to the shape of the object it covers. The position verb associated with it is rather *ligga* (lit. ‘lie’) ‘to be’, as in *pres-*

*enningen ligger över bilen* ‘the tarpaulin is (lit. ‘is lying’) on the car’. The position verb *stå* (lit. ‘stand’) ‘to be’ does not usually combine with *presenning* ‘tarpaulin’. The parade context, mentioned elsewhere in the text (*Ursäkta, sade han bara, är ni möjligen en demonstration?* ‘Excuse me, he just said, are you all possibly a demonstration?’), which usually involves both banderols and placards makes the tarpaulin resemble a rigid placard rather than a soft banderol. The material of the tarpaulin is softer than the cardboard used for placards, but more rigid than the cotton (etc.) of which banners are usually made. A placard of certain dimensions could be referred to as *ett högt plakat* ‘a tall placard’ while a banner would probably only be referred to as *en hög banderoll* ‘a high banner’ in positional use. In (74) it becomes clear that the tarpaulin is referred to as *plakatet* ‘the placard’, too.

- (74) Här har jag köpt kotletter och så kommer ni med det där *plakatet*! (B76–77)  
‘Here I have bought chops and then you come with that placard!’

In another passage, the tarpaulin is described using the noun *vägg* ‘wall’:

- (75) Polismannen ingrep inte heller då han såg presenningens *höga vägg* och läste dess text, men han tog ned handen och blev fundersam. (B76–77) ‘The policeman didn’t intervene either when he saw the high wall of tarpaulin and read what it said, but he lowered his hand and became thoughtful.’

Moreover, the tarpaulin in (73) touches the ground, which facilitates measuring it from the ground and upwards.

In the elicitation test, all nouns, which would combine with *hög* ‘high’ in the dimensional sense of the adjective, referred to objects of rigid material. Of the 770 instances in the corpus, 51 instances refer to objects that are not rigid. Examples include various nouns referring to water (on the whole 37 instances), nouns referring to motion (on the whole 4 instances), as well as *bokstäver* ‘letters’, *hål* ‘hole’, *låga* ‘flame’. One example concerning water is given in (76).

- (76) Vindstyrkan var åtta på Beaufortskalan, *vågorna* gick *höga* och Deutschland gick enbart för stagegel, med Richter och Sturm vid ratten. (B76–77) ‘The wind speed was eight on the Beaufort scale, the waves were high and the Deutschland had only the staysail up, with Richter and Sturm at the helm.’

When water is referred to as *hög* ‘high/tall’, the interpretation may approach a positional meaning, as pointed out by SAOB, see section 5.1. A good example of this is given in (77).

- (77) Men paviljongen stod stadigt kvar, och *vattnet* gick inte *högre* än till tröskeln. (B76–77) ‘But the pavilion remained firmly in place and the water did not reach any higher than the doorway.’

In (77), both the position of the water level and the vertical dimension of the water mass can be taken into account.

Linked to the quality of being made of rigid material is a quality that can be labelled balance.

Jakobsson (1996) studies the position verbs *stå* ‘stand’, as used in *stolen står i köket* (lit. ‘the chair stands in the kitchen’) ‘the chair is in the kitchen’ as opposed to *mattan ligger i hallen* (lit. ‘the mat lies in the hall’) ‘the mat is in the hall’.<sup>15</sup> The author argues that the semantics of *stå* (lit. ‘stand’) ‘be’ are tied to image schemas like Vertical Axis, Balance, and Counterforce (among others). Jakobsson makes use of an idea proposed by Andersen (1994) that an object *står* (lit. ‘stands’) ‘is’ if it has a *funktionellt upp* ‘functional up’. I would suggest that this term may be translated as, or at least is closely related to, canonical vertical position.

In Jakobsson’s analysis, involving the Vertical Axis schema should be understood as meaning that the object (whose corresponding noun is combined with *stå* ‘stand’) has its maximal extension in the vertical axis. It turns out that objects, whose corresponding nouns combine with *stå* ‘stand’, also combine with *hög* ‘high’.<sup>16</sup> The relation is not symmetrical, so that objects whose corresponding nouns combine with *hög* ‘high’ do not always combine with *stå* ‘stand’. The fact that balance is a central quality for *stå*, and the fact that *stå* ‘stand’ and *hög* ‘high/tall’ are associated, could justify closer inspection of the possibilities of including a quality concerning balance for *hög* ‘high/tall’. Invoking the quality of balance where *hög* ‘high/tall’ is concerned could be seen as a consequence of the quality that the object has its maximal extension in the vertical axis.

Concerning the differences and/or similarities of the quality of being made of rigid material on the one hand and a presumed quality of balance on the other hand, I can only say that they are related, and I have no strong arguments for distinguishing between them. There are indications that the quality of being made of rigid material is more dominant than the quality of balance, since the mirror of (72) and the tarpaulin of (73) are made of rigid materials (the tarpaulin of semi-rigid material, at least) but do not maintain their balance if put on the ground.

#### 5.4.10 *Hög* ‘high/tall’ combines with nouns referring to objects with a functional top

In the combination of *hög* ‘high/tall’ and a noun, the noun sometimes refers to an object whose top is functionally important. Although this group is small (61 out of 770 in the corpus), these uses provide a pragmatic bridge

<sup>15</sup> In Swedish, the position of a non-moving object is referred to by a position verb, either *stå* (lit. ‘stand’), *sitta* (lit. ‘sit’) or *ligga* (lit. ‘lie’), as in *boken står i bokhyllan* ‘the book stands (is) in the bookcase’, *lappen sitter på dörren* ‘the note sits (is) on the door’, and *mattan ligger i hallen* ‘the mat lies (is) in the hall’. The system is similar to the position verbs in German and Dutch. See Viberg (1985).

<sup>16</sup> I thank Ulrika Kvist-Darnell for letting me access her corpus for *stå* ‘stand’.

from the dimensional uses to the positional. There were no such nouns in the elicitation test. Objects having a functional top is described in (78)–(80).

- (78) En *hög monter* bjöd ut kaffebröd och smörgåsar. (B76–77) ‘A high stand proffered sandwiches and cakes.’
- (79) Inte som när man makat sig till rätta på den rödbruna *torrtoan*, som var så *hög* att man fick kliva på ett litet trappsteg för att komma upp. (B76–77) ‘Not like when you have made yourself comfortable on the reddish-brown dry privy, which was so high that you had to climb a small step to get up.’
- (80) Min fiol hade för *högt stall* eller för låg greppbräda, en fiolbyggare borde kunna göra vid den. (B76–77) ‘The bridge of my violin was too high or the fretboard too low; a violin maker should be able to restore it.’

In (78)–(80) the top is a functionally very important part of the object. When the adjective is combined with nouns referring to similar objects, the use resembles a positional use:

- (81) Om den legat kvar hemma i garderoben, längst bort på *högsta hyllan*, då kunde man snavat alldeles på Lorden. (B80–81) ‘If it had still been lying at home in the wardrobe, right at the back on the highest shelf, then one could have completely stumbled over the Lord.’
- (82) Cykeln är svart, har en *hög, rak sadel*. (B76–77) ‘The cycle is black, has a high, straight saddle.’

In (81) and (82), *hög* ‘high’ describes the distance between the ground and the location of the object. Uses such as (78) and (79) thus provide a pragmatic bridge between clear-cut positional uses on the one hand, such as (81) and (82) and, on the other, clear-cut dimensional uses, such as (83) and (84).

- (83) Sedan bär hon in en köksstol i vardagsrummet och ställer den framför det *höga* fristående *hörnskåpet*. (B76–77) ‘Then she carries a stool from the kitchen into the living room and puts it in front of the high freestanding corner cupboard.’
- (84) Lawson tecknade till sina medarbetare och började följa betjänten mot de *höga dubbeldörrarna* till arbetsrummet. (B80–81) ‘Lawson made a sign to his colleagues and began to follow the servant towards the high double doors of the study.’

Neither in (83) nor in (84), is the top of the object of greater importance than some other side of the object.

If an object, whose bottom is the most functional part, is combined with *hög* ‘high’, the combination may be difficult to interpret, such as *?en hög sopkvast* ‘a high broom’. If a broom has a great vertical extension, this would rather be expressed as *en sopkvast med högt skaft* ‘a broom with a long handle’. The phrase *hög sopkvast* ‘high broom’ may be interpreted as meaning that the brush rather than the handle has particularly great vertical

extension. Likewise, if a balcony has a great vertical extension, this would not be expressed as *en hög balkong* ‘a high balcony’. Such a collocation would be given a positional interpretation (a balcony located far up). Rather, a balcony with a great vertical extension would be referred to as *en balkong med höga räcken* ‘a balcony with high railings’.

### 5.4.11 Positional uses

In the corpus, 132 out of 902 uses invoke *hög* ‘high/tall’ in its positional sense. There are also 101 borderline-cases, which are between the dimensional and the positional use. In (85), a clear-cut positional use is shown, while in (86), the interpretation may be either dimensional or positional.

- (85) Uglük gick försiktigt ur spåret och fortsatte till en *högre punkt* där han hade bättre sikt. (B76–77) ‘Uglük carefully stepped off the track and continued to a higher point where he had a better view.’
- (86) *Scenen* var en halv meter för *hög*, publiken på de första bänkarna såg allting i grodperspektiv. (B80–81) ‘The stage was half a metre too high, the audience in the front rows saw everything from a worm’s eye view.’

In the elicitation test, 2 out of 32 nouns indicated that *hög* ‘high’ would be interpreted positionally if combined with the nouns (*nivå* ‘level’, *himmel* ‘sky’).

As mentioned in section 5.4.2, apart from the potential quality of a functional top, positional and dimensional uses of *hög* ‘high’ share a common reference plane. They also share a reference to a vertical axis, which is perceived as directed upwards.

Dimensional and positional *hög* ‘high/tall’ can be regarded as two different lexical categories, or as the same. I regard them as part of the same, simple lexical category, see Chapter 3 (Theoretical assumptions). There is no polysemy involved. Two objects, one described by dimensional *hög* ‘high/tall’, the other by positional *hög* ‘high’, may be compared to each other in a meaningful way:

- (87) *Huset* är *högre* än molnet. (constructed) ‘The building is higher than the cloud.’

I consider a comparison like the one in (87) to be a test for polysemy, see Chapter 3 (Theoretical assumptions). In Weydt and Schlieben-Lange (1998:221) the claim is made that German *hoch* ‘high’ refers to an endpoint, thus favouring a purely positional interpretation, probably considering all other uses as extended uses. Linde-Usiekniewicz (2002:219) regards the positional meaning of Polish *wysoki* ‘high’ as a separate sense. Goy (2002:132) represents an opinion somewhere between Weydt and Schlieben-Lange (1998) on the one hand and Clark (1973) and Linde-Usiekniewicz (2002) on the other, simply pointing out that for some

objects, such as a *bicicletta* ‘bicycle’ and *tavolo* ‘table’, *alto* ‘high/tall’ describes the distance of a surface from the ground.<sup>17</sup>

#### 5.4.12 Problematic cases

Pursuing the analysis that the objects referred to as *hög* ‘high’ exhibit a number of qualities as laid out in section 5.3, a few cases constitute problems.

The first case concerns a waterfall, which is referred to as *ett högre fall* ‘a higher fall’. Since the direction of the vertical extension in relation to *hög* ‘high/tall’ is comprehended as upward, from bottom to top, the motion of the waterfall (from top to bottom) is in opposition of that thought direction, see (88).

- (88) Vattentrappan bildade ett naturligt vattenfall av mossiga, gröna stenar med slingrande vattenväxter och ledde vattnet genom ett *högre fall* ner i ett hörn av dammen, från vilket vattnet rann mellan större mossöverbuxna stenblock till den djupgrävda kanalen som tog emot det överflödande vattnet. (B76–77) ‘The water step formed a natural waterfall of mossy green stones with trailing water plants and led the water through a higher fall down into a corner of the pool, from where the water flowed between larger boulders overgrown with moss to the deeply cut canal which received the overflowing water.’

The direction of the waterfall is undoubtedly downward, however, the mass of water may be considered as static as the fall does not lead to exhaustion of the flow. The same amount of water is present at all points of the fall at all times, even if specific drops of water leave the top, descend and reach the pool below. How do we interpret *högre fall* ‘higher fall’? Either the collocation should be understood as a positional use (from the point of falling), or the waterfall is measured from the ground to the top, the waterfall being considered a static amount of water that forms some kind of “wall”.

The example (88) may be contrasted with other examples, which refer to motion. In (89), the collocation *ett högt språng* ‘a high jump’ refers to a person moving in the vertical axis.

- (89) Han tog ett *högt språng* upp i luften och slog ihop hämlarna som en balett-dansör och fortsatte att skämta och spela pajas hela vägen till hotellet där John och Nora sa godnatt. (B76–77) ‘He made a leap high into the air and clicked his heels like a ballet dancer and carried on joking and clowning around all the way to the hotel where John and Nora said good night.’

SAOB lists the use *högt språng* ‘high jump’, together with *högt kast* ‘high throw’, under the “first sense” of *hög* ‘high’, which is described as referring

<sup>17</sup> Clark (1973: 38–39) glosses *height* as “vertical distance”, leaving “vertical length” for *tallness*.

to an object having a great extension in an upward, vertical direction or extending or reaching far up, or extending far up from sea level. I find the nouns expressing motion interesting since both *språng* ‘jump’ and *kast* ‘pitch’ can describe a motion going, first upwards, then downwards, when the object or the body, thanks to gravity, returns to its point of departure. What is considered *högt* ‘high’ could either be the top position (positional use), or the path from the reference level to the top position (dimensional use). What speaks in favour of the former suggestion is the fact only half of the *språng* ‘jump’ (namely the part that starts at the point of departure to culminate opposite it) has an upward direction, whereas the second half of the *språng* ‘jump’ (namely the part starting at the zenith to end at the original point of departure) has a downward direction, which is not the direction we usually associate with *hög* ‘high’.

However, in backing for the second suggestion (*hög* ‘high/tall’ describes a path from the reference point to the top position) can be found in the fact that *språng* ‘jump’ and *kast* ‘pitch’ may be considered complete without this return, for example in (90)–(91).

(90) Katten tog ett *högt språng* upp på hyllan. (constructed) ‘The cat made a high jump onto the shelf.’

(91) Genom ett *högt kast* hamnade bollen på taket. (constructed) ‘With a high throw the ball landed on the roof.’

#### 5.4.13 Less prototypical uses – the borders of *hög* ‘high/tall’

In some instances *hög* ‘high/tall’ combines with a noun corresponding to objects that display very few of the qualities discussed in section 5.4.1–5.4.12. Such cases can shed light on the prototypical structure, since these instances, which share so few qualities, should be considered less prototypical, even peripheral. This section will discuss such cases, among them *hål* ‘hole’, *täcke* ‘bedcover’, and *träskel* ‘threshold’.

Let us begin by considering the noun *hål* ‘hole’. In section 5.4.4, it was pointed out that only three of the objects referred to in the corpus lack a canonical vertical orientation, *hål* ‘hole’ being one of them. The example is given in (92).

(92) Här är jag i livets jordhåla. Här, för att hämta min syster, den lilla som jag snart skall föda. Jag måste ta henne nu från trollpackan. Jag måste bära mitt barn så varsamt och försiktigt upp genom det *höga hålet*. Jag måste få upp mitt barn i solen, i ljuset. (B80–81) ‘Here I am in life’s cave in the earth. Here to fetch my sister, the little one I’m soon to give birth to. I must take her now from the witch. I must carry my child so cautiously and carefully up through the high hole. I must bring my child up into the sun, into the light.’

A birth is being described as bringing a child from a witch through a hole, which means transporting the child from a lower cave in the earth to a higher place in the sunlight. The noun *hålet* ‘hole’ refers to an object which does not stand out against the background, but on the contrary, is a “negative part” of the upper side (the ceiling so to speak) of the cave. The term “negative part” indicates an object lacking outer measurement. According to Hoffman and Richards (1984), a study which proposes that the visual system would decompose shapes into parts, there are “positive” as well as “negative” parts. The negative parts are bounded by positive extrema of principle curvature (Hoffman and Richards 1984:85). Jackendoff and Landau (1991) associates the term “negative part” to a type of object that is formed by a concavity of some material, such as a ridge or a groove. The authors suggest that these objects should be regarded as shaped volumes scooped out of other objects. Such an object is, they write, a shape defined by “lack of substance” (Jackendoff and Landau 1991:149–151).

The object lacks a functional top. Its lack of a canonical vertical orientation has already been mentioned (holes are probably unspecified as to orientation). The object is not located on the ground, but below it, or, if the floor of the cave is considered as the ground, the object is located above it. The issue of material, whether rigid or supple, is not relevant for a negative object. Finally, the size of the vertical dimension is not clear from the context, but inside the hole is a ladder, which indicates that the size may, but need not, be equivalent to or exceed the size of a human being. Intuitively, the vertical axis is the maximal one, otherwise referring to the hole as *högt* ‘high/tall’ seems odd. The only qualities that the object actually does share with other objects, which are commonly referred to as *hög* ‘high’, is the vertical extension, the fact that the direction is upwards, and factive motion. The latter quality, however, is not performed by the object referred to as *hög* ‘high/tall’, but by a human being, who is to climb through the hole.

Less prototypical uses of *hög* ‘high/tall’ show us where the borders of the adjective are. First, what qualities do these uses that lack the important quality of canonical vertical orientation need in order to qualify for the description of *hög* ‘high’? The example of the *hög relief* ‘high relief’ shares only one quality with other uses of *hög* ‘high/tall’, namely the quality of being profiled against the background. The example of *högt hål* ‘high hole’, see (92), shares an upward direction of the vertical axis and probably, the quality of the vertical axis being the maximal one. The example of *presenning* ‘tarpaulin’, see section 5.4.9, shares the quality of being made of (somewhat) rigid material, the quality of the vertical axis being the maximal one, the quality of the vertical axis being as big as or bigger than a human, and the quality of being profiled against the background. In (93), an example referring to a bedcover is given.

- (93) Bakom det *höga täcket* kunde han skymta Arons hår som stod på ända.  
(B76–77) ‘Behind the high bedcover he caught a glimpse of Aron’s hair standing on end.’

The scenario is a family gathering around the mother’s sickbed. The object, referred to as *täcke* ‘bedcover’, shares very few qualities with other objects whose corresponding nouns combine with *hög* ‘high/tall’ in the corpus. Possibly, the quality of the object being profiled against the background is present, since the bedcover obviously conceals a major part of the boy called Aron. In fact, the example is rather difficult to interpret. My understanding of the situation is that the bedcover is creased in such a way that its actual vertical dimension is important, even if not maximal. Another interpretation is that the bedcover is very thick and that stress is laid on this dimension by using *hög* ‘high’ instead of the expected *tjock* ‘thick’. Yet a third possibility is to regard the use as positional.

As mentioned in section 5.4.1, *hög* ‘high/tall’ may combine with nouns such as *bokstäver* ‘letters’ and *bok* ‘book’. These objects lack a canonical vertical orientation. In actual fact, they share no qualities with other objects whose corresponding nouns are combined with *hög* ‘high/tall’ in the corpus. In my analysis instances of *bokstäver* ‘letters’ and *bok* ‘book’ are considered as extended uses, borrowing qualities originally belonging to real objects represented in pictures.

The quality of canonical vertical orientation is the most frequent quality among the objects, whose corresponding nouns combine with *hög* ‘high/tall’ in the corpus. If they lack this quality, objects need either an upward direction (possibly combined with the vertical dimension being the maximal one) (*hål* ‘hole’, *presenning* ‘tarpaulin’), or the quality of being profiled against the background (*täcke* ‘bedcover’, *relief* ‘relief’, *presenning* ‘tarpaulin’). The objects also need a vertical extension.

Finally, I would like to discuss collocations such as *höga krocketbågar* ‘high croquet hoops’, *höga häckar* ‘high hurdles’, *hög tröskel* ‘high threshold’, *hög trottoarkant* ‘high kerb’, and *höga trappsteg* ‘high steps’. I will begin with *höga krocketbågar* ‘high croquet hoops’ and *höga häckar* ‘high hurdles’.<sup>18</sup>

- (94) När jag gick över gräsmattan snubblade jag på några *höga krocketbågar*.  
(constructed) ‘When I walked across the lawn I stumbled over some high croquet hoops.’
- (95) Vid “lång häck” (400m) är *häckarna* 91.4 cm (män) resp 76.2 cm (kvinnor) *höga* och utplacerade med ett inbördes avstånd av 35 m. ‘For “long hurdles” (400 m) the hurdles are 91.4 cm (men) or 76.2 cm (women) high and placed at a distance of 35 m from each other.’

<sup>18</sup> Example (95) has been taken from the official web site of Swedish Athletic Association at <<http://www.friidrott.se/alltom/regler2.asp#hack>> as of February 3, 2004.

Neither of the object, referred to as *hög* ‘high’ in (94)–(95), is maximal along the vertical axis, nor is it as big as, or bigger than a human being. There is no fictive or factive motion involved, neither does the object have a functional top.

For a human in interaction with these objects, a certain amount of extra energy is required in order to surmount the objects. In example (94), a scenario in which a person stumbles and falls on the croquet hoops, thus a form of failure to surmount, is described. In example (95), the height of hurdles is described. A certain technique is needed to leap them which requires extra energy from the hurdler.

In examples such as *en hög tröskel* ‘a high threshold’, *en hög trottoarkant* ‘a high kerb’ and *höga trappsteg* ‘high steps’, this quality is present, too.

Regarding the threshold and the kerb, the objects are pieces we pass every day, adjusting our step to avoid stumbling and falling. The kerb is especially interesting. In moving from the roadway on to the pavement, as when crossing a street, the pavement will become the new reference plane, or, as it were, the new ground from which to start measuring a building, a lamppost or a mailbox. The same effect is seen in examples such as (96)–(97).

- (96) Och så kom naturligtvis plantageägarna, alltid plantageägarna, in till staden i sina glänsande landåer för att köpa aftonklänningar och silver och juveler och för att fylla de smala gatorna på väg till det gamla franska operahuset och Théâtre d’Orleans och St Louis Cathedral, genom vars dörrar växelsången från högmässan klingade ut över söndagarnas folkmassor på Place d’Armes och ut över bullret och schackrandet på French Market, långt ut över skeppen som tyst och spöklikt drev fram över Mississippis *höga vatten* som flöt in mot dammvallarna på högre nivå än New Orleans mark, så att det såg ut som om fartygen flöt upp mot himlen. (B76–77) ‘And then of course the plantation owners, always the plantation owners, came to town in their shiny landaus to buy evening dresses and silver and jewellery and to fill the narrow streets on their way to the old French opera house and Théâtre d’Orleans and St Louis Cathedral, through whose doors the antiphon of the morning service resounded over the Sunday crowds on Place d’Armes and over the noise and the bartering in the French Market, far over the boats that drifted silently and ghostlike across the high waters of the Mississippi flowing through embankments elevated above the land on which New Orleans lay, so that it looked as if the ships were floating up towards the sky.’
- (97) Palatset utbreddes sig på en tjugo meter *hög terrass* dit trappor ledde upp från alla sidor. (B76–77) ‘The palace spread across a twenty-metre high terrace which had steps leading up to it from all sides.’

The examples (96)–(97) regard positional uses of *hög* ‘high’, but one quality they share with *hög trottoarkant* ‘high kerb’, is the physical connection of the level referred to as *hög* ‘high’ with the reference plane, unlike uses such as *hög sol* ‘high sun’, *höga moln* ‘high clouds’, and in addition that the object, referred to as *hög* ‘high’, can form a new reference plane. In

example (97), the building referred to as *palatset* ‘the palace’ could probably be described as *hög* ‘high’, using the terrace as a reference plane. Correspondingly, the top of the kerb is part of the kerb, which “rests” on the roadway, and thus the top of the kerb is physically connected to the ground, the original reference plane. Furthermore, the top of the kerb forms a new reference plane. The combination *höga trappsteg* ‘high steps’ can be seen as a series of kerbs, where the top of the last stair will submerge into the floor, forming a new reference plane.

Furthermore the great majority of these instances display one or both of the following qualities: the vertical dimension is the maximal one and the object is as big as or bigger than a human being. For an object without these qualities some extra quality, distinct from canonical vertical orientation, rigid material and location on the ground, is needed. This extra quality will be one (or possibly several, though I have found no such cases) of the following qualities: factive/fictive motion (*vågor* ‘waves’), or functional top (*fiolstall* ‘bridge of a violin’), or that some energy is required to pass by lifting one’s feet/legs (*krocketbågar* ‘croquet hoops’, *höckar* ‘hurdles’, *träskel* ‘threshold’, *trottoarkant* ‘kerb’, *trappsteg* ‘steps’). I have not considered this final quality concerning extra energy as important as the other qualities.

#### 5.4.14 Prototypical uses of *hög* ‘high/tall’

Objects showing many of the qualities listed in section 5.3 are regarded as *hög* ‘high/tall’, and the semantics of the adjective will be closely connected to such objects. In related literature, authors sometimes ask informants what nouns go particularly well together with the adjective HIGH. According to Goy, Italian *alto* ‘high’ goes well with *torre* ‘tower’, *piramide* ‘pyramid’, *muro* ‘wall’, *casa* ‘house’ and *bicchiere* ‘glass’ (Goy 2002). German *hoch* ‘high’ goes together with *Turm* ‘tower’, *Berg* ‘mountain’, *Haus* ‘house’, *Hochhaus* ‘high-rise building’ and *Baum* ‘tree’ (Weydt and Schlieben-Lange 1998). According to the results from the elicitation test performed within this study, *hus* ‘house’ gets 8 occurrences, *berg* ‘mountain’ 3 occurrences, *mast* ‘pole’ 3 occurrences, *byggnader* ‘buildings’, *torn* ‘tower’, *stapel* ‘pile’, and *stege* ‘ladder’ 2 occurrences each, out of 30.

The three greatest groups in the corpus contain combinations of *hög* ‘high/tall’ and a noun, which refers to mountains, buildings and trees, or parts of such objects. Intuitively, the nouns *berg*, *hus* and *träd* come with little delay when asked to name something that is *hög* ‘high’. These object types share the following qualities: they have canonical vertical orientation, they are perceived as located on the ground, they are bigger than a human being, they are (more or less) profiled against the background and, finally, they are made of rigid material. Perhaps surprisingly, the vertical dimension need not be the maximal one (especially not for mountains, more probably

for buildings and very probably for trees). They do not have a functional top either. Only trees have factive motion in the upward direction.

## 5.5 *Låg* ‘low’ as the antonym of *hög* ‘high/tall’

The adjective *låg* ‘low’ is usually considered the antonym of *hög* ‘high’. As mentioned in Chapter 1 (Background and purpose) and in Chapter 3 (Theoretical assumptions), literature on antonymy often refers to dimensional adjectives when describing the anonymous relation (e.g. Lyons 1977:271, using *high* and *low*). Antonymy as a theoretical concept is not a primary concern of my work, still, it is interesting to note that the examination of the dimensional adjectives shows that these adjective pairs do not show perfect antonymy (see also Lafrenz 1983 and Durrell 1988). The usual antonym for *hög* ‘high’ is *låg* ‘low’, however, sometimes *kort* ‘short’ is the preferred antonym, and in a few cases *tunn* ‘thin’ is used for the opposite sense of *hög* ‘high/tall’. For this reason, it is worth studying *låg* ‘low’ separately without assuming that it resembles *hög* ‘high’ on all accounts apart from the norm that has to be surpassed.

## 5.6 *Låg* ‘low’ in the dictionaries

SAOB discerns several spatial senses of *låg* ‘low’. The first is described as having no great extension upwards, and as not extending far from the ground. Examples are *låg mur* ‘low wall’ and *låga buskar* ‘low bushes’. The second sense is described as scarcely protruding from the background. This is used about reliefs such as *låg relief* ‘low relief’. The third sense is described as not being located or not taking place high up, but instead being located or taking place close to the ground. An example is *solen stod lågt* ‘the sun was low’. The fourth sense operates on the horizontal axis and describes a location which is not far up or far in, such as *sitta lägst i klassen* (lit. ‘sit lowest in the class’) ‘have a seat, which is located far from the teacher’, sometimes also implying that this seating has been arranged according to a ranking of the pupils. In technical language, *låg* ‘low’ may also mean located far south, such as *lägre Bottenhafvet* ‘Lower Baltic Sea’.<sup>19</sup>

According to NEO, *låg* ‘low’ means having no great extension in the vertical axis. The dictionary points out the impersonal construction *det är lågt i tak i rummet* ‘the ceiling of the room is low’. Further, NEO treats a

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<sup>19</sup> Both *sitta lägst i klassen* ‘sit lowest in the class’ and *lägre Bottenhafvet* ‘lower Baltic Sea’ make a rather archaic impression today. Note that the spelling of *Bottenhafvet* ‘lower Baltic Sea’ is obsolete.

positional sense, exemplified by *låga, tunga moln* ‘low, heavy clouds’. This sense is described as being located or which takes place at no great height.

Illustrerad svensk ordbok discerns two major spatial senses. Under the first one, a few nuances may be found. The first one is defined as having no great height, as *ett lågt skär* ‘a low skerry’. The second one is about an opening, having limited extent from the bottom to the top such as *vara lågt till taket* (lit. ‘be low in ceiling’) ‘having a low ceiling’. Further, a usage concerning water is treated, where *lågt vattenstånd* ‘low water level’ is described as being under the normal water level.<sup>20</sup>

The second main sense concerns position. The sense is described as not being located or not taking place high up. An example is *tavlan hänger för lågt* ‘the framed picture is too low’.

Nusvensk ordbok separates a dimensional sense from a positional one. The dictionary article more or less consists of examples. Under dimensional *låg* ‘low’, examples like *låga berg* ‘low mountains’, *låg hydda* ‘low hut’, and *låg relief* ‘low relief’ can be found. Under positional *låg* ‘low’, examples such as *på lägre nivåer* ‘on lower levels’, *en låg novemberhimmel* ‘a low November sky’ and *lågt vatten* ‘low water’ can be found.

Bonniers svenska ordbok describes *låg* ‘low’ as not high or as *liten* ‘small’.

## 5.7 Related research in the past on LOW

Lang (1989) distinguishes between inherent applications and contextually induced usages of the German dimensional adjectives. When an object is described according to an inherent application, German *niedrig* ‘low’ can be used, as in *Der Turm is niedrig* ‘the tower is low’. The tower is vertical on a more permanent basis, as opposed to an object like a *Stange* ‘pole’, which can be held either horizontally or vertically. If a *Stange* ‘pole’ is held vertically, it will not be called *niedrig* ‘low’, but *kurz* ‘short’. Lang calls this a contextually induced usage. Both the *Turm* ‘tower’ and the *Stange* ‘pole’ can be called *hoch* ‘high’. On antonymy, Lang points out that while an erected pole may be described as *höher* ‘higher’ or *langer* ‘longer’ than a smaller pole, the smaller pole can only be described as *kürzer* ‘shorter’ (Lang 1989:330).

Lafrenz (1983) gives two antonyms for German *hoch* ‘high’, namely *niedrig* ‘low’ and *flach* ‘flat’. Lafrenz (1983) rejects *tief* ‘deep’ as an antonym of *hoch* ‘high’ in normal language use. German *flach* ‘flat’ is a cognate to Swedish *flat* ‘flat’. I treat *flat* ‘flat’ as a possible antonym of *djup* ‘deep’ and the adjective is described in Chapter 9.

In an experimental test, Weydt and Schlieben-Lange (1997) asked for the antonym of the German adjective *hoch* ‘high’. The majority response gave

<sup>20</sup> Uses concerning the human body and clothes have been omitted, see Chapter 4 (Data and methodology).

*niedrig* ‘low’ as the antonym, but as many as a third of the respondents suggested *tief* ‘deep’.

Rakhilina (2000) studies Russian *nizkij* ‘low’. She suggests that *nizkij* ‘low’ is not the opposite of *vysokij* ‘high’, but rather describes something, which is below us, close to the ground. In Russian, there are both *nizkij* ‘low’ and *nevysokij* ‘not high’. The former adjective is used to describe objects below us while objects that are higher than a human being are described by the latter adjective. The sense of the adjective *nizkij* ‘low’ can be compared to SAOB’s definition of *låg* ‘low’ as something taking place or being located close to the ground.

In an experimental test, Goy (2002) studied what nouns can combine with Italian *alto* ‘high/tall’ and *basso* ‘low/short’. In the majority of the results, the same nouns that did not combine very well with *alto* ‘high/tall’ did not combine with *basso* ‘low/short’ either. But there were some interesting exceptions. Some nouns got a better rating when combined with *basso* ‘low/short’ than with *alto* ‘high/tall’. Examples of this type are *automobile* ‘car’ and *divano* ‘sofa’. Goy approaches this phenomenon by suggesting that for *basso* ‘low/short’, it is enough if the object has a vertical, oriented axis, but this axis need not at the same time be salient, which is usually the case for *alto* ‘high/tall’. Moreover, some other nouns got a better rating for *alto* ‘high/tall’ than for *basso* ‘low/short’. Examples are *fenicottero* ‘flamingo’ and *palo della luce* ‘pole’. The objects, Goy reasons, are “typically high/tall”. This means that they are either of a greater vertical extent than most other objects of their superordinate class, and/or they are as big as or bigger than a normal human being. Again, Goy refers to norms and gives measurements for when the norm is exceeded.

## 5.8 Claims concerning *låg* ‘low’

The spatial, non-metaphorical sense of *låg* ‘low’ can be described as a simple category, having prototypical and peripheral uses. *Låg* ‘low’:

- Prototypically refers to the vertical dimension, where the adjective indicates no great extension in relation to a certain norm.
- The vertical extension is considered as emanating from a reference plane.

The adjective is preferably combined with nouns referring to objects:

- With a canonical vertical orientation.
- Located, or perceived as located on the ground.
- Whose vertical dimension is not the maximal one.
- With a functional top.
- Made of rigid material.

The more of these qualities the object possesses, the more prototypical the class of referents in relation to *låg* ‘low’.

Apart from the dimensional use, there is also a positional use, such as *låg hylla* ‘low shelf’.

## 5.9 Results and discussion on *låg* ‘low’

In this section, I will discuss the various qualities, which are tied to the adjective *låg* ‘low’ itself, or to the referents that the adjectives describe. The focus will be on the dimensional sense of *låg* ‘low’. The positional sense will mainly be treated in section 5.9.9, but the positional sense of *låg* ‘low’ will also be discussed in relation to certain qualities, prior to that.

### 5.9.1 Orientation

As mentioned in section 5.7, Bierwisch (1967), Fillmore (1997) and Lang (1989), to mention a few, agree that LOW is associated with the vertical axis. In Swedish, this is shown in adverbial expressions such as *lågt ner* ‘low down’, whereas *?lågt bak* ‘low back’ or *?lågt ut* ‘low out’ sound odd.

In the corpus, *låg* ‘low’ refers to an actual vertical orientation in 129 out of 131 dimensional uses of *låg* ‘low’, thus in all cases except two. In the elicitation test, all nouns referred to objects with an actual vertical orientation. Example (98) shows one of the 129 examples where the noun refers to an object with actual vertical orientation.

- (98) En blåsig och mulen dag såg hon kanske inga segelbåtar alls, bara de långa, låga lastfartygen som passerade långsamt och ljudlöst, och hon väntade på att något skulle hända – att telefonen skulle ringa? – och när dagen var slut och Marvin kom hem och hennes egendomligt formlösa tillvaro förändrades kände hon en lättnad som nästan var lycka. (B76–77) ‘On a windy and cloudy day she might not see any sailing boats at all, only the long, low cargo ships that passed slowly and silently, and she waited for something to happen – that the telephone would ring? – and when the day was over and Marvin came home and her strangely shapeless existence changed she felt a relief that was almost happiness.’

The two remaining cases concern wheels and a relief:

- (99) Korvståndet, en stor vagn på låga hjul, låg kullvräkt. (B76–77) ‘The hot dog stand, a large cart on low wheels, lay overturned.’
- (100) Plattan var slät på ena sidan, och på den andra fanns i låg relief en framställning av världen: längst upp ett stort bukigt moln, i mitten ett stormigt hav och nederst en grotta där Kaija satt och lurade, fet och mäktig. (B76–77) ‘The plate was smooth on one side, and the other side showed a depiction of the world in low relief: at the top a large bulging cloud, in the middle a

stormy sea and at the bottom a cave where Kaija lay in wait, fat and powerful.’

In example (99), *låg* ‘low’ refers to an object whose orientation lacks actual verticality. The wheels have a canonical vertical orientation, which justifies the use of *låg* ‘low’.

In example (100), the noun *relief* ‘relief’ refers to an object which possesses neither actual nor canonical vertical orientation. *Låg relief* ‘low relief’ can be contrasted to *hög relief* ‘high relief’. The adjective *hög* ‘high/tall’ points out that the object referred to as *relief* ‘relief’ stands out against its background, see section 5.4.1 and 5.4.10. To describe the same object by referring to it as *låg* ‘low’ would then indicate that it does not stand out against its background. Many objects, referred to as *låg* ‘low’, share this quality, which is further discussed in section 5.9.3.

## 5.9.2 The reference plane

The adjective *låg* ‘low’ measures an extension between a reference plane and the top of the object. As indicated in section 5.7, Lang (1989) thinks that the relevant scale regarding *hoch* ‘high’ and *niedrig* ‘low’ starts at the foot of the measured object. In dealing with *high* and *low*, Clark (1973), Lyons (1977), and Durrell (1988), are all of the opinion that the relevant scale starts at a reference plane outside the object. Commonly, this reference plane is the ground. I have adopted the solution of viewing the reference point as being dissociated from the object for *hög* ‘high’, see 5.4.2 and 5.4.5. For *låg* ‘low’ this also seems to offer an attractive approach. It unites the dimensional and positional use, since the positional use always has a reference plane that is distinct from the object and whose location is referred to as *låg* ‘low’. Furthermore, arguments based on corpus examples support this solution, see 5.9.5.

## 5.9.3 The direction of the vertical axis

SAOB as well as *Illustrerad svensk ordbok* assume that *låg* ‘low’ includes a direction upwards, see section 5.6.

The ungrammaticality of *\*lågt upp* ‘low up’ and the grammaticality of *lågt ner* ‘low down’ indicates that a direction is present for the vertical axis of *låg* ‘low’.

I consider the reference plane referred to in section 5.9.2 to provide the starting point for the direction. In examples (101)–(102), positional uses of *låg* ‘low’ co-occur with the preposition *över* ‘above’, indicating a relation where *Sjöa* and *horisonten* respectively refer to objects as landmarks (or reference planes), and the objects *tak* ‘roof’ and *ban* ‘orbit’ respectively as trajectors. The trajector is envisaged at what is the end-point of a path – the vertical extension.

- (101) Molnen hängde svullna i ett *lågt tak* över Sjöa och vi svettades tunga och olustiga i den kvalmiga hettan. (B76–77) ‘The clouds hung swollen in a low roof above Sjöa and, heavy and listless, we sweated in the stuffy heat.’
- (102) I sydväst vandrar solen sin *låga ban* en tvärhand över horisonten. (B80–81) ‘In the southwest the sun traces its low orbit one hand’s breadth above the horizon.’

The direction of *låg* ‘low’ is thus upwards. There are 11 more instances of *lågt över* ‘low above’, where the adjective is used adverbially, in the corpus. When searching for *lågt under* ‘low under’, it is clear that this use is considerably less common. In the corpus, there are only 2 instances of *lågt under* ‘low under’, both metaphorical uses.

The upward direction may be regarded as corresponding to factive motion. There are a few instances of directional growth in the corpus:

- (103) Och i den oväntade gläntan en av skorstenarna på Mälarhusen, rakt ovanför det gulnade buskaget av *låg björksly*. (B80–81) ‘And in the unexpected clearing one of the chimneys of Mälarhusen, right above the yellowing undergrowth of low birch shoots.’

However, the direction of *låg* ‘low’ is more interesting than that. In fact, the grammaticality of *lågt ner* ‘low down’ and the ungrammaticality of *\*lågt upp* ‘low up’ shows that a downward direction is present, too: One direction rises to an expected norm, and then another descends to stop at a certain point on the scale, see Figure 8.

In example (104), the hedges have first acquired a certain size through upward, factive motion and then been reduced by a downward, factive motion.

- (104) Stensviks gård hade två flyglar, inte stora, men vackert inramande gårdsplanen med de *låga*, klippta *buxbomshäckarna* och de välskötta rabatterna. (B76–77) ‘Stenvik’s manor had two wings, not large, but framing the courtyard beautifully with its low, trimmed box hedges and the well-kept flowerbeds.’

However, the upward direction never becomes more evident than in examples (103)–(104).

There are more examples where only downward direction is expressed. First, let us look at some examples where factive motion is present.

- (105) Sen hörde han hur kvinnan sade nej, nej, nej, och hur stegen vacklande närmade sig hans gömställe och sen hur det *låga taket* han låg under ytterligare sänktes, det rörde nästan vid hans ansikte. (B76–77) ‘Then he heard the woman say no, no, no, and how stumbling footsteps approached his hiding place and then how the low ceiling under which he lay was pushed down further so that it almost touched his face.’

In example (105), a man is hiding under a roof which people searching for him tread on so that their weight depresses it even more and this is express-

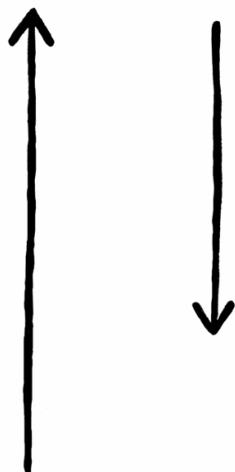


Figure 8. The direction of *låg* ‘low’

ed linguistically by *ytterligare sänktes* ‘was pushed down further’. Other examples show objects moving from one altitude down to a lower altitude. In these cases, *låg* ‘low’ is not referring to any motion itself, but to the final position of the objects, see (106)–(107).

(106) Sikten var bara några hundra meter i dimman, och helikoptern måste komma rakt över honom om de skulle kunna upptäcka honom – och gå ner på farligt *låg höjd*. (B76–77) ‘The visibility was only a few hundred metres in the fog and the helicopter would have to fly right over him if they were to find him – and descend to a dangerously low altitude.’

(107) Vi rullade allt längre ner mot den sannskyldiga ugnshettan nere på *lägre höjd* och svängde norrut just där vägen från Meru anslöt. (B76–77) ‘We rolled further and further down towards the veritable oven-like heat, down to a lower height and turned north just at the junction with the road from Meru.’

In both example (106) and (107), an object has first gone from a reference plane up to a certain altitude. Then its direction has changed and it has started moving downwards, towards the ground.

There are also a few instances of fictive motion in the corpus. In the first case, the verb indicates the fictive motion:

(108) Han tog in färjan till Utö, in i den fantastiska hamnen i lä bakom den höga bergryggen med sitt mäktiga fyrkantiga gråstenstorn, målat med breda ränder i skärt (av alla färger!) under vilket lotsarnas och fyrvaktarnas och militärernas *låga trähus* kurade ihop sig för att få skydd mot stormen. (B80–81) ‘He steered the ferry into Utö, into the fantastic harbour sheltered behind the high mountain ridge, with its imposing square granite tower, painted with

broad stripes of pink (of all colours!) under which the pilots' and lighthouse-keepers' and soldiers' low wooden houses huddled together for protection against the storm.'

The verb phrase *kura ihop sig* 'huddle' refers to a motion from an erect position to a "folded" one, which indicates a downward movement.

In (109), the preposition phrase *mot marken* 'against the ground' indicates downward motion, while in (110) the adjective *hopsjunket* 'tumble-down' describes the result of a downward motion.

(109) *Låga hus* tryckte mot marken. (B76–77) 'Low buildings pressed against the ground.'

(110) Torpet var litet, ett *lågt* *ihopsjunket hus* med rum och kök i en enhet och en liten kammare innanför. (B76–77) 'The cottage was small, a low tumble-down house with living room and kitchen combined and a small room behind.'

The quality of standing out against the background, associated with *hög* 'high/tall', is absent for *låg* 'low'. Instead, objects referred to as *låg* 'low' are close to the ground, as was expressed by Rakhilina (2000) concerning Russian *nizkij* 'low'. This can be seen in (111)–(112).

(111) De båda gestalterna var tätt inpå honom, och det tog flera sekunder innan han upptäckte det *låga tältet* bakom dem. (B76–77) 'The two figures were very close to him, and it took several seconds before he discovered the low tent behind them.'

(112) Istället för en utsiktspunkt som San Michele, som stolt behärskar horisonten, har han valt ett *lågt hus*, utmed marken – en trädgårdsvåning borde man säga – begravd i grönskan. (B76–77) 'Instead of a viewpoint like San Michele, which proudly dominates the horizon, he has chosen a low house, close to the ground – a garden flat you should say – buried in the greenery.'

Rather, the impression that the examples of the corpus convey is that the objects described as *låg* 'low' fuse into the background, see especially (112), or at least provide no great contrast. Something which does stand out against the background may instead be distinguished from what is referred to as *låg* 'low':

(113) De reser sig som skiltvakter över den *låga*, påvra *bebyggelsen*. (B80–81) 'They rise like sentries over the low, poor settlement.'

The Italian nouns that Goy (2002:135) describes as fitting better with *basso* 'low' than with *alto* 'high', namely *automobile* 'car' and *divano* 'couch', could also be considered not standing out against the background. Here, of course, the individual context plays a role.

There is one example where the object performing the fictive motion is a human gaze:

- (114) Han lät blicken fara runt den andre, ner mot de *låga*, nedskalade *stenarna*.  
(B80–81) ‘He cast his eye over the other one, down towards the low, scaled-down stones.’

Talmy refers to this linguistic type as expressing a sensory path (1996:224), or, possibly, an orientation path (1996:220). In example (114), the object, described as *låg* ‘low’ is the target. This example is interesting since it indicates that the extension indicated by *låg* ‘low’ has an (upper) endpoint below human eye level. This can be compared to the suggestion that objects, referred to as *hög* ‘high/tall’ are often as big as, or bigger, than a human being, see section 5.4.8. Being below eye level is a relative measure, since distance make objects appear smaller. I have not pursued this idea any further, but intuitively, it seems reasonable.

#### 5.9.4 *Låg* ‘low’ combines with nouns referring to objects with canonical vertical orientation

*Låg* ‘low’ combines with nouns denoting objects with canonical vertical orientation in 130 of 131 examples, where *låg* ‘low’ is interpreted as having a dimensional use. In the elicitation test, all the nouns corresponded to objects with canonical vertical orientation. For the positional use, the issue of vertical orientation is not relevant, since what is measured is the distance from a reference plane to the object, not an extension along the object’s vertical axis.

Example (115) shows a combination of adjective and noun, where the noun refers to an object with canonical vertical orientation.

- (115) Där borta vid Skanstull, där vägen var så sandig, i det trasiga, *låga skjul*, där hon bodde sedan smeden givit sig av. (B76–77) ‘Over there by Skanstull, where the road was so sandy, in the low ramshackle shed she had been living in since the blacksmith left.’

In example (115), the vertical axis is not only canonical but also actual as well.

The only example, where *låg* ‘low’ combines with a noun referring to an object without canonical vertical orientation is *låg relief* ‘low relief’. The example was discussed in section 5.9.1 and it is further brought up in section 5.9.10.

We may also think of situations where the canonical vertical axis and the actual vertical axis conflict. In (116), *låg* ‘low’ refers to an axis, which is in fact non-vertical.

- (116) Korvståndet, en stor vagn på *låga hjul*, låg kullvräkt. (B76–77) ‘The hot dog stand, a large cart on low wheels, lay overturned.’



Figure 9. A lying bookcase, which will be stored under a shelf

The wheels are described as *låg* ‘low’, although their verticality may be questioned, since the hot-dog-stand is tilted. The wheels have canonical vertical orientation, which is what is referred to.

Further, an actual vertical orientation may not be the canonical vertical orientation. Figure 9 shows such a situation. It is possible to imagine a situation like the one illustrated in Figure 9, where it could be discussed whether a lying bookcase is low enough (regarding its actual vertical axis) to fit under a certain shelf.

(117) Vi kan skjuta in den under hyllan, den är så *låg* så det går bra. (constructed)  
 ‘We can push it in under the shelf, it’s so *low* that it will be fine.’

Lang (1989) distinguishes between an orientation which has a contextually induced specification, and an orientation with an inherent application. The former term seems to correspond to actual orientation, and the latter one seems to correspond to canonical orientation. German *hoch* ‘high’ can refer both to a canonical vertical orientation and an actual vertical orientation, while *niedrig* ‘low’ refers to a canonical vertical orientation but not to an actual vertical orientation, if this conflicts with the canonical vertical orientation or if there is none. Lang exemplifies by discussing a tower (which has canonical vertical orientation) and a pole (which can only have

actual vertical orientation and not canonical vertical orientation). The tower can be referred to as *hoch* ‘high’ and *niedrig* ‘low’, while the pole, if held vertically, can be referred to as *hoch* ‘high’, but not as *niedrig* ‘low’ (*kurz* ‘short’ would be used instead). For Swedish, there is no such distinct difference for *hög* ‘high/tall’ and *låg* ‘low’ in relation to canonical or actual vertical orientation. A pole, like the one mentioned by Lang, would probably be referred to as *lång* ‘long’ and *kort* ‘short’ (and neither as *hög* ‘high/tall’ nor as *låg* ‘low’), while a bookcase, like the one in example (117) and Figure 9, can be referred to as *hög* ‘high/tall’ and *låg* ‘low’ in terms of its actual vertical orientation.

### 5.9.5 *Låg* ‘low’ combines with nouns referring to objects located on the ground

The majority of the occurrences of *låg* ‘low’ in the corpus refer to objects located on the ground. In (118), an example where the reference plane is the ground is given.

- (118) Lastbilen hade kört ner från motorvägen och Elena stirrade nu på en lång och låg, rostig Cadillac med nerhängande avgasrör. (B76–77) ‘The lorry had driven off the motorway and Elena was now staring at a long, low rusty Cadillac with a dangling exhaust pipe.’

The car is on the ground and the adjective *låg* ‘low’ refers to the vertical dimension between the ground and the top of the car.

A closer look reveals that being located on the ground is not equivalent to the object’s bottom being on the ground. In (119)–(120), two such examples are shown.

- (119) Han sprang in genom dörren till en låg byggnad, sprang snabbt genom en hall och steg ut på en perrong där ett tåg med upplysta fönster stod färdigt för avfärd. (B76–77) ‘He ran in through the door to a low building, ran quickly through a hall and stepped out onto a platform where a train with lit-up windows was ready for departure.’
- (120) Löven slets bort från de låga buskarna och uppräckta grästuvor kom rullande, formade till klot av vinden. (B76–77) ‘The leaves were torn from the low bushes and tufts of grass came rolling, formed into balls by the wind.’

The building in (119) most certainly has foundations below the ground, while the bushes of (120) have roots going into the ground.

The fact that the object, referred to as *låg* ‘low’, sticks down into the ground, while the extension measured as *låg* ‘low’ is along the visible part of the object, supports the solution of the reference plane being outside the object, not a part of the object. The extension, referred to as *låg* ‘low’ is not measured from the lowest point (the point closest to the centre of the earth).

Other objects are not located on the ground, but on an inner floor, which is then idealised to the ground. Example (121) shows such a use.

- (121) Stearinljusen på det *låga kaffebordet* brinner stadigt ovanför dem. (B76–77)  
‘The candles on the low coffee table are burning steadily above them.’

The coffee-table is located on a floor, and the adjective *låg* ‘low’ refers to the extension between the floor and the top of the table.

In the elicitation test, nouns referring to objects sticking down into the ground occurred, such as *hus* ‘house’, *staket* ‘fence’, *mur* ‘wall’ and *stubbe* ‘tree stump’, as did nouns referring to object located on an inner floor, such as *tröskel* ‘threshold’, *stol* ‘chair’, *pall* ‘stool’.

There are a few cases where the objects, referred to as *låg* ‘low’, are not located on the ground or on the floor. Objects, referred to as *låg* ‘low’ like this, are car parts, bowls, a glass, a relief, and a radiator:

- (122) Flera *låga silverskålar* med lingonris. (B80–81) ‘Several low silver bowls with lingonberry twigs.’

- (123) Ute i korridoren stod Thorvaldsen med ena foten uppe på det *låga värmeelementet* och ryggen mot panelen. (B76–77) ‘Out in the corridor Thorvaldsen was standing with one foot up on the low radiator and his back towards the panel.’

In (122), the bowl is placed on a table, which serves as a reference plane. In (123), the radiator is not placed on a concrete plane, but can be regarded as located on an abstract plane. Note that such a use is ambiguous. It can either be regarded as describing the extension between the bottom and the top of the radiator, or as describing the position (of the upper end) of the radiator in terms of its distance from the floor. The latter interpretation is probably preferred since it provides an explanation of the character’s ability to place one foot on the radiator. The elicitation test included no such nouns.

### 5.9.6 *Låg* ‘low’ combines with nouns referring to objects, whose vertical dimension is not the maximal one.

While *hög* ‘high’, in the majority of cases, combines with nouns referring to objects whose vertical dimension is the maximal one, there seems to be hesitation about using *låg* ‘low’ to describe the vertical dimension if it is also the maximal one. In the corpus, there are few examples where *låg* ‘low’ describes a maximal extension (15 cases out of 131 occurrences of dimensional *låg*). According to the results of the elicitation test, one noun (*stubbe* ‘tree stump’) could refer to an object where *låg* ‘low’ describes a maximal vertical extension, while the rest of the nouns did not. Thus, it seems as if *låg* ‘low’ combines with nouns that refer to objects whose vertical dimension is the maximal one to a considerably lesser extent than

*hög* ‘high/tall’ combines with nouns that refer to objects whose vertical dimension is the non-maximal one (173 clear-cut cases out of 770 cases).

Two examples, where *låg* ‘low’ combines with nouns that refer to objects whose vertical dimension is the maximal one, are shown in (124)–(125).

- (124) Nere i lä, bortom Kokombrink med sin *låga*, vitmålade *fyr* ytterst på den kullriga granitudden, länsade en segelbåt in mot Åbo under en regnbågsgrann spinnaker, annars syntes inga andra båtar. (B80–81) ‘Down on the lee side, beyond Kokombrink with its low, white-painted lighthouse at the furthest point of the uneven granite spit, a yacht sailed in on a following wind to Turku under a dazzling rainbow-coloured spinnaker; otherwise there were no other boats to be seen.’
- (125) Hennes roll var att sitta på liten stol med *låga ben*, nu när det var för arbetsamt att sitta på trappan. (B80–81) ‘Her role was to sit on a small chair with low legs, now that it was too tiring to sit on the steps.’

An object for which the maximal extension is vertical, can also be described as *kort* ‘short’. Note that in English, *tall–short* form one antonym pair and *high–low* another. Some objects are described both as *låg* ‘low’ and *kort* ‘short’, as *tall* ‘pine tree’, as well as *hög* ‘high’. Examples can be seen in (126)–(128).

- (126) Han tittade på en lämplig *kort tall* och tänkte att det bara var att klättra upp i den tallen, binda fast repet om halsen och i en gren och sen hoppa. (B76–77) ‘He looked at a suitably short pine tree and thought that all he needed to do was to climb up the tree, tie the rope around his neck and a branch and then jump.’
- (127) Då en nötskrika kom utflygande ur sumpmarken och nyfiket satte sej i en *låg tall* vid Gölvägen förstod jag att djur var på väg. (B80–81) ‘When a jay came flying out of the marsh and perched curiously on a short pine tree near Gölvägen I understood that animals were coming.’
- (128) Sedan sex dygn sitter han uppe i den *höga tallen* i Tallsätra och jamar. (parole) ‘For six days and nights he’s been sitting up in the tall pine tree in Tallsätra meowing.’

The object *tall* ‘pine tree’ can scarcely be described as *lång* ‘long’.<sup>21</sup> However, there are other objects, such as *stege* ‘ladder’, which can be described as both *hög* ‘high’, *lång* ‘long’ and *kort* ‘short’, but on the other hand, this object can probably not be described as *låg* ‘low’. The ladder is used in order to reach a certain (higher) level. Therefore, a ladder is not readily described as *låg* ‘low’. The pine tree can be used to reach a higher level but this is not its canonical function.

*Låg* ‘low’ expresses verticality, while *kort* ‘short’ indicates that the dimension described is the maximal one (see Chapter 11 on *lång* ‘long’ and *kort* ‘short’). For objects, where the vertical dimension is at the same time

<sup>21</sup> I have, though, observed *en lång gran* ‘a long fir’ in natural conversation.

maximal, the adjective *kort* ‘short’ is an alternative to *låg* ‘low’, since *låg* ‘low’ rather describes a non-maximal dimension.

Another solution when describing objects, where the maximal dimension is vertical, is to use the adjective *liten* ‘small’. Then, the vertical dimension is incorporated in a three-dimensional description.

### 5.9.7 *Låg* ‘low’ combines with nouns that refer to objects made of rigid material

In the corpus, *låg* ‘low’ combines with nouns referring to objects made of rigid material in all cases, where *låg* ‘low’ has a dimensional sense, except 6 cases. Four of these cases concern water, e.g.:

- (129) Sommartid var *vattenståndet lågt*. (B76–77) ‘During the summer the water level was low.’

As mentioned in section 5.4.9, the combination of *låg* ‘low’ and a noun referring to water may approach a positional interpretation.<sup>22</sup> For positional uses, the issue of material is not relevant since a point (which has no matter, strictly speaking) may have a position, referred to as *låg* ‘low’. The two remaining cases are shown in (130)–(131).

- (130) Gyllene därför att solen hela tiden gav *låga*, breda *flöden* i marken. (B80–81) ‘Golden because all the time the sun was radiating low, broad streams on to the ground.’

- (131) De båda gestalterna var tätt inpå honom, och det tog flera sekunder innan han upptäckte det *låga tältet* bakom dem. (B76–77) ‘The two figures were very close to him, and it took several seconds before he discovered the low tent behind them.’ = (111)

Example (130) concerns light. A ray of light has no matter, but it shows similarities with objects made of rigid material, since it may maintain a balance. The next example (131) is made of soft canvas, which is stretched between *tältpinnar* ‘tentpoles’ which give the object a rigid structure.

Thus, a great majority of the objects, referred to as *låg* ‘low’, can be considered made of rigid material.

### 5.9.8 *Låg* ‘low’ combines with nouns that refer to objects with functional tops

The corpus contains one group of instances in which *låg* ‘low’ combines with a noun that refers to an object with a functional top. Two such examples are given in (132) and (133).

<sup>22</sup> It can be questioned whether *vattenstånd* ‘water level’ refers to a concrete object on the whole. It may be regarded as an abstract extension, comparable to *höjd* ‘altitude’, or it can be regarded as a level, thus interpreted as a positional use. SAOB, however, treats *högt vattenstånd* ‘high water level’ as a spatial, dimensional use.

- (132) Om jag lutade mig bakåt på den *låga sängen* kunde jag se hennes axlar mot badkaret. (B76–77) ‘If I leaned back on the low bed I could see her shoulders against the bath.’
- (133) Hon stod nu med böjda knän framför spegeln på det *låga toalettbordet* och satte på sig hatten. (B76–77) ‘With her knees bent she now stood in front of the mirror on the low dressing table and put on the hat.’

In example (132), the top of the bed is where the body is supposed to lie if the object is used functionally, and in example (133), the top of the table is where objects are stored. In (134), another example is given.

- (134) Den äldre låg på knä på bryggkanten och hade just börjat skölja. Sedan tog den yngre hand om det sköljda och bearbetade det med klapprät. Hon använde bryggan som en *låg bänk*, slog energiskt med framåtböjd överkropp. (B80–81) ‘The older of them was lying face down on the edge of the jetty and had just begun to rinse. Then the younger one took the rinsed washing and pounded it with the paddle. She used the jetty like a low bench and pounded energetically with her torso bent forward.’

In the example of (134), the relevant vertical extension is from the ground, where the working woman is located, to the top of the bench. This distance can either be expressed as the distance from the ground to the upper surface (positional interpretation) or the extension along the vertical dimension of the object (dimensional interpretation).

In the elicitation test, 8 of 14 instances (dimensional uses) referred to objects with functional tops. These were *pall* ‘stool’ (2 occurrences), *stol* ‘chair’ (2 occurrences), *bänk* ‘bench’ (2 occurrences), *bord* ‘table’, and *bro* ‘bridge’.

### 5.9.9 Positional uses

In the corpus, 13 out of 144 occurrences of *låg* ‘low’ involve a positional use, while 14 out of 144 involve a use which can be regarded as a borderline-case between dimensional and positional use. The remaining 117 occurrences are clearly dimensional uses. In the elicitation test, 5 of 21 instances were nouns with which *låg* ‘low’ would be interpreted positionally (*nivå* ‘level’, 2 occurrences, *tak* ‘roof’, 2 occurrences, and *fisk* ‘fish’), whereas 2 were borderline instances (*vatten* ‘water’, 2 occurrences). A clear positional use from the corpus is shown in (135), while two borderline cases are shown in (136)–(137).

- (135) En *låg vintersol* bröt igenom molntäcket. (B80–81) ‘A low winter sun broke through the layer of cloud.’
- (136) Jag hade blint gått rätt på huset, och insåg nu att jag alltid hade vetat var det hade legat och undvikit det, alltid svängt av innan jag kommit till det oupplysta gathörnet, aldrig velat gå förbi det *låga fönster* där jag första gången hörde Claudia gråta. (B76–77) ‘I had walked blindly straight towards the

house and now realised that I had always known where it was and had avoided it, always turned off before I reached the unlit street corner, never having wanted to walk past the low window where I first heard Claudia crying.’

- (137) Hon låg fortfarande utsträckt på sin *låga*, fyrkantiga *jättesäng*. (B76–77)  
‘She still lay stretched out on her enormous low square bed.’

Example (136) shows an object, which “rests” on no concrete reference plane, so that the use is ambiguous: either the ground is the reference plane and it is to be interpreted positionally or an abstract plane at the bottom of the window constitutes the reference plane and it is therefore dimensional.

The phenomenon that enables both a dimensional and a positional interpretation to apply for some three-dimensional objects, such as the bed in (137), that stand on the ground but whose main function is linked to their tops without any pronounced effect on the meaning, clearly shows the correspondence between the dimensional and the positional sense. In other words the correspondence observed for dimensional *hög* ‘high/tall’ and positional *hög* ‘high/tall’, see section 5.4.10, can also be observed for dimensional *låg* ‘low’ and positional *låg* ‘low’.

### 5.9.10 Prototypical and peripheral uses of *låg* ‘low’

Prototypical uses of *låg* ‘low’ are uses, when the adjective combines with a noun which refers to an object which has a canonical vertical orientation, which is located on the ground, whose vertical dimension is not the maximal one, which is made of rigid material and which has a functional top.

In (132), repeated here as (138), such a use is shown, provided that the inner floor, on which the bed is located, may count as the ground.

- (138) Om jag lutade mig bakåt på den *låga sängen* kunde jag se hennes axlar mot badkaret. (B76–77) ‘If I leaned back on the low bed I could see her shoulders against the bath.’

Very few uses, however, concern nouns whose corresponding objects exhibit all qualities. More commonly, three or four of five qualities are present, such as in (118), repeated here as (139).

- (139) [...] Elena stirrade nu på en lång och *låg*, rostig *Cadillac* med nerhängande avgasrör. (B76–77) ‘[...] Elena was now staring at a long, low rusty Cadillac with a dangling exhaust pipe.’

The object, referred to as *låg* ‘low’, has a canonical vertical orientation, it is located on the ground, its vertical dimension is not the maximal one, it is made of rigid material but it lacks a functional top.

In the elicitation test, no specific noun stood out from the others. These nouns all occurred twice: *hus* ‘house’, *stol* ‘chair’, *pall* ‘stool’, *vatten* ‘water’, and *nivå* ‘level’.

Peripheral uses have only one (if any) of the mentioned qualities. An example can be found in (100), repeated here as (140).

- (140) Plattan var slät på ena sidan, och på den andra fanns i *låg relief* en framställning av världen [...] (B76–77) ‘The plate was smooth on one side, and the other side showed a depiction of the world in low relief [...]’

The object, referred to as *låg* ‘low’, does not possess any of the qualities. However, it protrudes somewhat from its background, a quality which was discussed in section 5.9.3 and which is shared by some other objects, referred to as *låg* ‘low’. However, the quality is not so important that I have ranked it on the same level as the other qualities.

## 5.10 Summary of *hög* ‘high/tall’ and *låg* ‘low’

The dimensional adjective *hög* ‘high/tall’ in its spatial, non-metaphorical sense can be described as a lexical category, where some uses are prototypical, and others are peripheral. Both the dimensional and the positional sense are included in the category. I have not considered the adjective polysemous. Prototypical uses are *högt hus* ‘tall house’, *högt berg* ‘high mountain’ and *hög mast* ‘high pole’. Referent classes prototypically include qualities such as having a canonical vertical orientation, being located (or perceived as located) on the ground, their vertical dimension being the maximal one, being as big as or bigger than human beings, being profiled against the background and consisting of rigid material. An object may still be described as *hög* ‘high/tall’ if it lacks all these qualities. In such cases, the object needs one (or more) of the following qualities: showing factive or fictive motion, having a functional top, or requiring extra energy if it is to be surmounted. Such a use will be considered a peripheral use, for example *hög tröskel* ‘high threshold’ and *högt fiolstall* ‘high violin bridge’.

In addition, I offer arguments for the upward direction of *hög* ‘high/tall’. Linguistic expressions showing factive and fictive motion in the upward direction support the idea of an upward direction. Moreover, the point or plane that prevents the object from falling down towards the centre of the earth plays an important role. It is assumed that the object is measured from the point/plane of support or attachment. The direction is away from the point/plane of support or attachment. Thus, a lower point or plane increases the likelihood of the pertinent object being described as *hög* ‘high/tall’, while an upper point reduces it.

I also suggest that the extension measured by *hög* ‘high/tall’ is detached from the object itself. The fact that objects penetrating into the ground, such as buildings (with foundations below the ground surface) and fences, are described as *hög* ‘high/tall’, measured from what is visible at/above the ground, and not along their actual extension starting below the ground, supports such a claim.

The positional use of *hög* ‘high’ shares qualities with the dimensional use of *hög* ‘high/tall’. The uses share a common reference plane and a reference to a vertical axis, which is comprehended as directed upwards. Furthermore, nouns combined with *hög* ‘high/tall’ in its dimensional sense may refer to objects with functional tops, such as *hög monter* ‘high stand’. Focus is then on the top of the object and the use of the adjective approaches a positional use.

*Låg* ‘low’ is also described as a simple category with prototypes. Here, too, the dimensional and the positional senses are included. Clear-cut prototypical uses are not as prominent as for *hög* ‘high/tall’ (no noun clearly predominated in the elicitation test), but *pall* ‘stool’ and *hus* ‘house’ may be considered prototypical. Objects exhibiting qualities such as a canonical vertical orientation, being located (or perceived as located) on the ground, the vertical dimension not being the maximal one, consisting of rigid material and having a functional top are more prototypical than objects that lack these qualities.

*Hög* ‘high/tall’ and *låg* ‘low’ are antonymous only to a certain extent. *Kort* ‘short’ and *liten* ‘small’ may have an antonymous relationship to *hög* ‘high/tall’, too.

## 6 The semantics of *bred* ‘broad/wide’

The purpose of this chapter is to give a thorough and detailed account of the meaning of the dimensional adjective *bred* ‘broad/wide’. The adjective *bred* ‘broad/wide’ is either unmarked (such as when specified by a measure phrase), or marked. In the former case, the adjective points out what dimension is concerned, while in the latter case, it indicates great extension.

The purpose is not to study to what extent an object has to surpass a norm to qualify for description as *bred* ‘broad/wide’.

Related research has focused on the conflict between systems that take either perspective or geometry into account for WIDE (Zubin and Choi 1984, Lang 1989, 2001, Vandeloise 1988 among others). This conflict is not evident in my data and I suggest how one of them, the system related to geometry may be viewed as an abstraction from the perspective system. The category is considered complex. Moreover, I offer linguistic evidence for a direction of *bred* ‘broad/wide’ as extending to the sides. Finally, the semantics of *bred* ‘broad/wide’ are described without going via the semantics of some other adjective, as do Bierwisch (1967), Vandeloise (1988), Lang (1989) and Weydt and Schlieben-Lange (1998).

### 6.1 *Bred* ‘broad/wide’ in the dictionaries

SAOB gives two spatial senses. The first is described as having great sideways extension. It is opposed to *smal* ‘narrow/thin’. The second refers to measure phrases, and indicates a certain given sideways extension. An example of the first sense is *wägen är jämn och bred* ‘the road is even and wide’. An example of the second sense is *lika långt som bredt* ‘as long as [it is] wide’.<sup>23</sup> As mentioned in Chapter 4 (Data and methodology), SAOB is an historical dictionary and therefore includes uses of the adjective that seem archaic from a contemporary point of view.

Illustrerad svensk ordbok gives two spatial senses. The first one is explained as having a certain extension in the width dimension. This is exemplified with *en meter bred* ‘one metre wide’. The second sense is described with the synonyms *utsträckt* ‘outstretched, extended’, *vid* ‘broad’ and *utbredd* ‘spread’. No examples of collocations are offered.

According to Nusvensk ordbok, there are two spatial senses. They are distinguished by different antonyms. The first sense is opposed to *lång* ‘long’ and *hög* ‘high/tall’. Several examples are given which include *tre*

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<sup>23</sup> The spellings of *wägen* ‘the road’, *lika* ‘as’ and *bredt* ‘wide’ are obsolete.

*meter bred* ‘three metres wide’, *vägen är lagom bred för två åkdon att mötas* ‘the road is wide enough for two vehicles to pass’ and *det är lika långt som det är brett* ‘it is as long as it is wide’. The second sense is opposed to *smal* ‘narrow’. Numerous examples are given, such as *breda sidenband* ‘wide silk ribbons’, *stolen är för bred i ryggen* ‘the chair is too wide at the back’ and *en mil på det bredaste stället* ‘ten kilometres at its widest point’.

NEO gives one main spatial sense. This refers to an object having a great extension across the main direction, normally in the horizontal plane (the latter is added in a smaller font). The antonym is *smal* ‘narrow’ but also *djup* ‘deep’, *hög* ‘high/tall’, *lång* ‘long’ and *vid* ‘broad’. Among the examples are *en bred gata kantad med träd* ‘a wide street lined with trees’ and *en duk med breda spetsar* ‘a cloth with a broad lace trim’. A nuance of this sense refers to an object having a certain extension across its main direction, such as *floden är två kilometer bred* ‘the river is two kilometres wide’. This is the “neutral” sense (corresponding to my unmarked sense).

Finally, Bonniers svenska ordbok starts by giving the antonym *smal* ‘narrow’. Also, the explanation *utsträckt i sidled* ‘extended sideways’ is suggested. An example is *en bred väg, säng* ‘a wide road, bed’. Further, *bred* ‘broad/wide’ can mean ‘having a certain width’, exemplified by *stigen är 50 cm bred* ‘the path is 50 cm wide’.

## 6.2 Related research in the past on BROAD/WIDE

The related literature deals with research on the cognates of *bred* ‘broad/wide’ and on other lexical items in other languages with an equivalent or at least a closely related meaning. Where English is concerned, research dealing with both *broad* and *wide* has been taken into consideration. Similarly, research on both German adjectives *breit* ‘wide’ and *weit* ‘wide’ is referred to in this section. The sense of the Swedish adjective *vid* ‘broad’ is sometimes close to English *broad*, sometimes to English *wide*, and the same relation can be noticed in its relation to German *breit* and German *weit*. For this reason, the related research concerning Swedish *vid* ‘broad’ has been included in the present section. *Vid* ‘broad’ is studied in Chapter 7 but no section headed Related research in the past has been included there.

Greimas (1966) describes French *large* ‘broad/wide’ and *étroit* ‘narrow’ as expressing spatiality, dimensionality, horizontality and laterality. No perspective is involved and no verticality, according to the work.

According to Bierwisch (1967), the German *breit* ‘broad/wide’ and *schmal* ‘narrow’ should be analysed in terms of one-dimensionality and orthogonality towards another salient extension. The dimension, described as *breit* ‘broad/wide’ or *schmal* ‘narrow’ is regarded as “secondary” or “second” in a hierarchy. The dimension is non-vertical. Bierwisch points

out that many objects have a maximal axis. If the axis is normally vertical, it will be described as *hoch* ‘high’. If the axis is not (normally) vertical, it will be described as *lang* ‘long’. However, if one of the dimensions of an object is aligned with an observer’s line of sight, and this dimension is not at the same time maximal, then *lang* ‘long’ will be ruled out. Provided the vertical dimension is not the maximal one, the “secondary” dimension will be the maximal one. This is the case with an object such as a *Schreibtisch* ‘desk’.

Here, Bierwisch rather tentatively discerns two systems, an oriented one invoking the observer’s line of sight and a non-oriented one with objects described only according to their proportions. Other studies have continued and refined his attempts, so that a certain consensus about the two different uses of WIDE, one taking orientation into account and the other proportions, has emerged.

Bierwisch devotes less attention to the German adjective *weit* ‘wide’ and its antonym *eng* ‘narrow’. *Weit* ‘wide’ involves two or three dimensions. But *weit* ‘wide’ may also refer to only one dimension, but in these cases, it is not antonymous with *eng* ‘narrow’. The sentence *Der Weg ist weit* ‘The road is far/long’ is polysemous, since it can both mean that the road as a whole is far away, or that the road is long. In the first sense, *weit* ‘far’ is antonymous with *nah* ‘close’, and in its second sense, it is antonymous with *kurz* ‘short’. According to Bierwisch’s analysis, *weit* ‘wide’ should be understood in terms of distance, either between certain objects or between parts of an object. In uses like *der weite Platz* ‘the wide square’ and *eine weite Öffnung* ‘a wide opening’, a clear indication of the distance between these limits is given and the space between them foregrounded.

According to Fillmore (1997:39), *wide* is used for measuring the left-to-right extension along the front.<sup>24</sup>

Clark (1973) considers that *width* describes objects with two or more dimensions. It is applied to objects once *tallness* or *length* has applied to the maximal dimension. In English, *wide* is not only a dimensional term, but may be used positionally, as in *The arrow went wide of the mark*. According to Clark, *width* is marked with respect to *length* and *tallness*, since *width* requires more conditions to be met before it can be used. While an object needs only to have one dimension (such as a line) in order to have *length*, an object needs (at least) two dimensions in order to have *width*. Clark does not elaborate on the difference between *wide* and *broad*, just mentions that they are closely related.

Lyons (1977) separates unoriented entities and space from oriented ones. For unoriented, three-dimensional entities, the maximal extension of the object is identified as its *length*. *Wide* and *narrow* are then used if the object has another extension which is significantly extended but only if that extension is significantly greater than the minimal extension.

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<sup>24</sup> Fillmore (1997) contains a series of lectures, given in 1971 in Santa Cruz.

For two-dimensional entities, the maximal extension of the object is still called *long*. The second extension is then either called *wide–narrow* or *thick–thin*. If the minimal extension is significant, it will be described as *wide* or *narrow*, as a *street* is described as *long* and *narrow*, while if the minimal extension is not significant, it will be described as *thick* or *thin*, as a *line*, *pole* or a *stick* is described as *long* and *thin*. To call an object a *line* is to express that the object is comprehended as unidimensional. This approximates it to the ideal geometrical line.

When spaces and entities are oriented both those with fronts and those without will have *width* from side to side.<sup>25</sup> For objects with a front, *width* is from side to side, and for those without fronts, *width* is perpendicular to the *length*, which goes from end to end. Lyons points out that a dual-purpose piece of furniture can be described as *long* and *wide* when being considered as a *table* and as *wide* and *deep* when being considered as a *desk*. The *width* of an object can never exceed its *length*. If *width* has been assigned to the greater of the two horizontal extensions, as is the case for *desk*, the object simply has no *length*. Here, Lyons agrees with the point made by Bierwisch about German *lang* ‘long’ and *Schreibtisch* ‘desk’.

Galeote et al. (1999) asked adult speakers of Spanish to undergo an elicitation task in order to study whether they described the dimensions in accordance with Lyons’s (1977) suggestions. The authors measured the frequency of error, where it was considered an error to describe a dimension differently than Lyons, for example by calling the greatest horizontal extension of a desk LONG and not (as predicted by Lyons) WIDE. The results showed that this frequency differed for various object types. Rectangular-parallelogram-shaped objects gave rise to a large number of errors concerning the expected WIDE. For an object like couch, three-quarters of the informants chose LONG for the greatest dimension, and only one-quarter chose WIDE, which was the adjective that the authors attributed to Lyons’s (1977) prediction. For an object like a chiffonier, the number of errors was much smaller. The authors explain this by pointing out that the maximal horizontal dimension is much smaller than the vertical dimension. When informants were asked to describe two pictures, informants named the dimensions “correctly” (i.e. according to Lyons’s description) when the picture had its maximal extension along the vertical axis, but committed errors when the picture had its maximal extension along the horizontal axis. Instead of labelling the maximal extension WIDE, it was labelled LONG by a quarter of the informants. In addition, informants were asked to describe a hollow tube. The adjective WIDE was considered as the correct choice, but a majority of the informants chose to call it something else, mainly THICK or FAT. Informants not only omitted WIDE in favour of some other dimensional adjective, they also substituted WIDE for some other expected adjective.

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<sup>25</sup> An example of an object having a front would be a stove. An example of an object lacking a front would be a bridge (my suggestions).

When asked to describe a pencil, the correct choice was considered to be THICK. However, many informants described the diameter as WIDE instead.

Spang-Hanssen (1990) proposes an algorithm for assigning dimensions to objects. He distinguishes between non-oriented and oriented entities. For non-oriented entities, *largeur* ‘width’ is assigned to an object after the vertical dimension has received a label (either *épaisseur* ‘thickness’, if the extension is very small in relation to the maximal dimension, or *hauteur* ‘height’), and after the maximal extension has received a label (either *longueur* ‘length’ or *hauteur* ‘height’). For oriented entities, the process comprises further steps. First of all, the object should be rotated mentally so that its canonical *haut* ‘top’ coincides with its actual *haut* ‘top’. The horizontal dimension of the front will be labelled *largeur* ‘width’. An example of such an object would be a *placard* ‘wardrobe’.<sup>26</sup> Further, *largeur* ‘width’ can be attributed to the remaining dimension once the vertical dimension has been labelled (either *épaisseur* ‘thickness’ or *hauteur* ‘height’) and the maximal extension has been labelled (either *hauteur* ‘height’ or *longueur* ‘length’). This description is valid for objects with closed fronts, such as a *bureau* ‘chest of drawers’. Spang-Hanssen points out that French is more inclined to describe furniture in terms of *largeur* ‘width’ and *profondeur* ‘depth’ compared to some other languages, like Danish, where a description in terms of *længde* ‘length’ and *bredde* ‘width’ is preferred if the furniture is low and long.

In Weydt and Schlieben-Lange (1998) an alternative algorithm is proposed for assigning dimensions to objects. Their main idea is that speakers construct images of three-dimensional objects in steps. First, the object is given a two-dimensional description, and after that, a third dimension is added. An example of this process is a board, which is described as *lang* ‘long’ and *breit* ‘broad/wide’ in the first step, then as *dick* ‘thick’ in the second step. Alternatively, the most salient dimension is named in the first step, and thereafter, the two other dimensions are given. An example of this process is a building, whose salient dimension is named *hoch* ‘high’ in the first step, and where the two remaining dimensions are identified as *Länge* ‘length’ and *Breite* ‘width’ in the second step. *Breit* ‘broad/wide’ always presupposes (at least) one other dimension as the first dimension. When describing a one or two-dimensional object, the first step identifies the salient dimension as *lang* ‘long’, *tief* ‘deep’ or *hoch* ‘high’, while the second optional step identifies the second dimension as *breit* ‘broad/wide’. Examples: *Ein Bild ist hoch und breit* ‘A picture is high and broad/wide’, *Eine Gletcherspalte ist tief und breit* ‘A crevasse is deep and wide’. The authors also describe the adjective *weit* ‘wide’. *Weit* ‘wide’ refers to inner measurement of one dimension, as in *Das Tor ist weit geöffnet* ‘The gate is open wide’, two dimensions, as when describing the inner measurements of

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<sup>26</sup> Spang-Hanssen gives examples quite restrictively and my references to his text sometimes include my interpretations of his intentions.

a tube, and three dimensions (no example is given). The adjective may also combine with nouns like *Land* ‘country’ or *Steppe* ‘steppe’, where the outer boundaries disappear in an infinite distance.

Geckeler (1997) comments upon the results of Weydt and Schlieben-Lange, which had apparently already been published in a volume dedicated to Geckeler on his 60<sup>th</sup> birthday in 1995. Geckeler considers whether the results are valid for the French dimensional adjectives too. For *large* ‘wide’, this seems to be the case.

Wienold and Rohmer’s typological study of 31 languages points out the category WIDTH, with lexicalised expressions like *broad* and *wide* in English and *breit* ‘broad/wide’ and *weit* ‘wide/far’ in German, is a very complex category. One of the reasons is that WIDTH can denote extensions of one, two or three dimensions (Wienold and Rohmer 1997:164).

Zubin and Choi (1984) is a typological study covering English, German, Korean, Peruvian Spanish, Arabic, Mandarin, and Modern Greek. The study argues that two different organising principles, the Gestalt principle and the orientation principle, underlie the entire spatial lexicon. The study goes back on Talmy (1983), who recognises these principles but uses other terms (geometry and perspective), however. While English *wide* can be used either to describe an oriented object, the side transecting the visual field, or an unoriented object, the less extended edge of a surface, other languages like Korean or Mandarin have specific terms applying to only one of these situations.

Lafrenz (1983) studies German *breit* ‘wide’, *schmal* ‘narrow’, *weit* ‘wide’ and *eng* ‘narrow’.<sup>27</sup> Starting with *breit* ‘wide’, Lafrenz considers that if an object has two main dimensions, neither vertical, the smaller of the two will be referred to as *breit* ‘wide’. If an object has two main dimensions of which one is vertical, the non-vertical dimension will be referred to as *breit* ‘wide’, provided that this dimension is at the same time perpendicular to an axis, along which an observer or user normally relates to the object. This is true also for an object having three main dimensions provided that the other conditions are fulfilled. If the other conditions are not met, *breit* ‘wide’ refers to the smallest non-vertical main dimension. Moving on to *weit* ‘wide’, Lafrenz considers this the most complex of the German dimensional adjectives. It can refer to one dimension, as in *ein weiter Weg* ‘a long road’, two dimensions, as in *ein weites Feld* ‘a wide field’ or three dimensions as in *ein weiter Saal* ‘a wide hall’. Lafrenz compares *weit* ‘wide’ to *hoch* ‘high’ in that both adjectives have a reference point from which the dimension or the dimensions start. Furthermore, Lafrenz points out that nouns that combine with the *weit* ‘wide’ often have a negative (“privative”) aspect, which mostly means that they refer to a cavity (“Hohl-

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<sup>27</sup> The dissertation by Lafrenz is in German. When translating the German adjectives to English, I follow the Oxford-Duden German Dictionary.

raum”) of some sort. They may also have, either combined with the negative aspect or alone, the quality of surface.

Durrell (1988) examines German and English dimensional adjectives in a comparative analysis. German *breit* ‘wide’, *weit* ‘wide’, *schmal* ‘narrow’ and *eng* ‘narrow’ are discussed and compared to English *broad*, *wide* and *narrow*. To start with the German adjectives, Durrell states that *breit* ‘wide’ refers to one dimension, whereas *weit* ‘wide’ refers to one or more dimensions. If a noun can collocate with *weit* ‘wide’, it can mostly collocate with *breit* ‘wide’, too, but not the other way around. Durrell raises the question of whether *weit* ‘wide’ is a true dimensional adjective. It can seldom be part of an interrogative phrase or a measure phrase. This Durrell attributes to the fact that *weit* ‘wide’ may describe more than one dimension. Further, Durrell wants to characterise *breit* ‘wide’ as referring to an inherent dimension of an object, while *weit* ‘wide’ refers rather to a spatial extension. In dealing with the English adjectives, Durrell shows that *broad* and *wide* in some contexts are interchangeable, as in *a broad/wide street, plank, valley, margin*, but in some context are not, as in *a broad/?wide leaf, broad/?wide acres* and *wide/?broad area, ditch, opening*. According to Durrell, *broad* is used in relation to nouns which denote a surface. The adjective refers to the direction across (“Querrichtung”). *Broad* is not used in measure phrases, since the adjective refers to a subjective impression, which cannot be measured in conventional units. When referring to objectively measurable dimensions, *wide* is preferred. According to Durrell, *broad* tends not to be used in interrogative phrases such as *?How broad is the street*. Such a phrase is interpretable, but the adjective refers rather to the extent of a certain quality and not to a dimension. For these reasons, Durrell hesitates to label *broad* a true dimensional adjective.

Athanasiadou (2001) studies English *broad* and *wide*. According to her results, the spatial meaning of *wide* includes its usage for measurements of distance which have a specified extent or size from side to side or from edge to edge (*wide bed*), its usage for measurements extending over a great distance from side to side (*wide road*), or its usage for object that are completely open and extended to the maximum (*wide eyes*). The distance may be unspecified, either because of its magnitude or because of its deviation from a desired goal (*wide of the mark*). *Broad*, on the other hand, is used for measuring very large, flat, spacious areas (*broad lawn*) or objects which are characterised by strength and support (*broad shoulders*).

According to Lang (1989), the German *breit* ‘broad/wide’ is described as a dimension that is orthogonal to another dimension. In this respect, Lang (1989) agrees with Bierwisch (1967). That other dimension can be called *lang* ‘long’, which involves Gestalt properties only and no orientation, *hoch* ‘high/tall’, which involves orientation, or *tief* ‘deep’, which involves perspectivisation (Lang 1989:290, 344). Thus *breit* ‘broad/wide’ can involve no orientation (when orthogonal to *lang* ‘long’), it can involve orientation (when orthogonal to *hoch* ‘high’), and it can involve perspectivisation

(when orthogonal to *tief* ‘deep’). *Lang* ‘long’, *hoch* ‘high/tall’ and *tief* ‘deep’ all have their own semantic definitions, but *breit* ‘broad/wide’ is only defined indirectly. Further, Lang points out that *breit* ‘broad/wide’ requires at least a two-dimensional object (Lang 1989:273). In German, *weit* ‘wide/far’ is polysemous and can both describe the extension of an object’s dimension(s) and a distance between objects. This is analogous to how HIGH in many languages (Swedish, German and English, for example) can describe either a vertical dimension of an object or a vertical distance. According to Lang, *weit* ‘wide’, in describing an extension (dimension) denotes an internal (inner) extent of an object. The dimension should be located orthogonally to the observer’s line of sight. Lang also writes that *weit* ‘wide’ can describe the inner diameter of a hollow body.

This is different from the description given by Wienold and Rohmer (1997). They claim that *weit–eng* ‘wide–narrow/tight’ only describe the two-dimensional extension of a surface and that *breit–schmal* ‘broad/wide–narrow’ describe a one-dimensional extension (Wienold and Rohmer 1997:144). The study does not mention the quality of inner measurement.

The present study does not aim to analyse the German adjectives. But the picture, formed by Lang on one hand and Wienold and Rohmer on the other, is interesting since the description given in the Swedish dictionaries of the somewhat equivalent adjectives also shows great variety.

In a later study, Lang returns to the German dimensional adjectives. This time, a typological perspective is added. Lang (2001) labels the parameter, which is relevant for BROAD/WIDE–NARROW “across”. Across identifies an extent of some object as the one that is orthogonal to max, vert, or obs. The parameter is especially interesting since, in English at least, it can have its corresponding term (i.e. *wide*) in two separate, yet interacting frames of reference, the Inherent Proportion Schema (IPS) and the Primary Perceptual Space (PPS). Within IPS, the parameter across supplements the parameters max and min in such a way that across is assigned to the “remaining dimension”, to which neither max nor min applies. Within PPS, across covers a horizontal dimension, to which neither vert nor obs apply. In this way, across is defined only in relation to other major parameters (indirectly, as mentioned above). In other languages, the across term is only anchored in one of the frames of reference, either in IPS, such as Mandarin, or in PPS, such as Korean. In these languages, the across term cannot be ambiguous, which is the case in English (*wide*).

Stolz (1996) characterises Yucatec Maya *kòoch* ‘wide’ as a dimensional chameleon. It is the most widely used adjective according to Stolz’s elicitation experiments. It can describe two-dimensional as well as three-dimensional objects, and it can describe both integrated and disintegrated axes. By integrated axis, Stolz means an axis, which is amalgamated with another, like the diameter of a cylinder, where two axes are integrated. Stolz follows Lang (1989) by claiming that *kòoch* ‘wide’, like German *breit* ‘wide’, is defined only in relation to other dimensional descriptions in-

volving other dimensional adjectives. Stolz regards *kòoch* ‘wide’ as a default solution, when none of certain conditions (with respect to orientation and proportions) are fulfilled. *Kòoch* ‘wide’ describes an object without respect to orientation. Further, it describes a dimension, which is neither the maximal one, nor the minimal one (for three-dimensional objects). The antonym of *kòoch* ‘wide’ is *níut* ‘narrow’. It behaves similarly to *kòoch* ‘wide’. (Stolz 1996:227–232.)

Vandeloise (1988) studies English *length* and *width*. He starts by recalling Bierwisch (1967) which, according to Vandeloise, exclusively takes the shape of an entity into consideration when explaining the semantics of dimensional adjectives. Vandeloise suggests an analysis that, apart from the shape of an entity, also treats factors such as the motion of the object, the function of the object, the orientation of the speaker and the passing of the object by or through another element.

Vandeloise seeks answers to two questions. The first issue is what objects have *width*, and the second one is which dimension is identified as the *width*. Vandeloise distinguishes functional definitions from metric definitions. To start with the functional definitions, these consist of three different rules. The first rule is about paths. For paths, the *width* is evaluated along a direction, which is perpendicular to the actual shape of the object. The second rule concerns mobile entities. For these, the *width* is evaluated along a direction, which is perpendicular to the direction of movement. For most moving objects, the dimension, which is perpendicular to the direction of movement (the *width*), is smaller than the dimension which is parallel to the direction of movement (the *length*). This is the case for a car. For some moving objects though, like a plough or a razor blade, the *width* will be the greatest dimension. The third rule involves immobile multidimensional entities, like buildings. Here, the *width* is the dimension along a direction perpendicular to the speaker’s general orientation. Finally, there is a metric definition. According to this, the *width* of an entity is its smallest non-vertical extent.

Vandeloise treats *length* and *width* together in a manner, which indicates that the two units are connected to each other in a parallel way. It bears some resemblance to Bierwisch (1967), Lang (1989) and Lang (2001), since these studies define the semantics of *breit* ‘broad/wide’ (Bierwisch 1967, Lang 1989) and *wide* (Lang 2001) as derived from the semantics of other dimensional adjectives. However, *breit/wide* are not derived from *lang/long* only, but from *hoch/high* and *tief/deep* as well.

Linde-Usiekniewicz (2000) studies the meaning and the use of Polish dimension terms. She includes adjectives (where she separates evaluative adjectives from nominative adjectives, corresponding to marked and unmarked sense), adverbs and nouns. According to her results, the criterion for WIDTH is being an axis relevant to the size of some relevant flat area. She claims that WIDTH (together with LENGTH and THICKNESS) are independent of the axes in space and that they rely on properties of the

objects themselves and on their purpose. Linde-Usiekniewicz does not count WIDTH among the terms related to orientation (where HEIGHT, DEPTH and LENGTH can be found), but instead, WIDTH is, together with THICKNESS, related to surface. It can further refer to both the surface of an object, and to the surface defined by the object, such as *szeroki luk* ‘a wide arc’.

Rakhilina (2000) studies Russian dimensional adjectives. *Širokij* ‘wide’ may refer to the transverse area of a container as seen from the inside, while *tolstij* ‘thick’ is used when it is seen from the outside. A bottle’s neck may be referred to as *širokij* ‘wide’, but not as *tolstij* ‘thick’. *Širokij* ‘wide’ may also refer to the shorter dimension of a rectangular plane. However, if one of the dimensions of the rectangular plane is facing a human being and at the same time is the dimension that performs the main function, this dimension will be referred to as *širokij* ‘wide’, even if it is the longer one. This is the case for a desk or a couch. Further, Rakhilina points out that when measuring width, the observer is usually at the midpoint of the dimension. This position makes it possible to “see” both ends. Measurement of length, starts from one end, and the other end is not necessarily within the field of vision.

### 6.3 Claims concerning *bred* ‘broad/wide’

The spatial, non-metaphorical sense of *bred* ‘broad/wide’ can be described as a complex category, corresponding to a network model. One case is considered central. *Bred* ‘broad/wide’:

- Refers to a left-right dimension, in relation to a user (functional application).
- Refers to the smaller dimension in the horizontal plane.
- Indicates either a great extension in relation to a certain norm (marked sense), or a neutral meaning, including no information regarding the relation between the dimension and a norm, but instead including information that the scale concerns a certain dimension (unmarked sense).
- Refers to a dimension, whose full extension is within the field of vision.
- Refers to a dimension which actually bifurcates in opposing directions, starting in the middle and extending simultaneously to the left and the right.
- Refers to inner and outer measurements.

*Bred* ‘broad/wide’ preferably combines with nouns referring to objects

- With a canonical orientation, which includes the maximal dimensions extended in the horizontal plane.
- Located on or forming part of the ground.
- Perceived as two-dimensional.

Some referent classes are so typical that they are seen as being *bred* ‘broad/wide’ themselves. Such an example is *motorväg* ‘motorway’. When used as an attribute, *bred* ‘broad/wide’ may be considered more or less redundant so that *bred motorväg* ‘wide motorway’ is regarded as synonymous with *motorväg* ‘motorway’.

## 6.4 Results and discussion on *bred* ‘broad/wide’

In this section, I will discuss the semantics of *bred* ‘broad/wide’, starting with orientation and direction, then moving on to proportions and shape. Finally, the relation of the two systems (one based on perspective, one on geometry) will be examined.

### 6.4.1 Orientation

As mentioned in section 6.2, Durrell (1988) considers that *broad* is used in relation to nouns which denote a surface. The adjective refers to the direction across (“Querrichtung”). Athanasiadou (2001) also claims that English *broad* is used to measure very large, flat, spacious areas (*broad lawn*). According to Linde-Usiekniewicz (2000), the criterial feature for WIDTH is forming an axis in relation to the size of some relevant flat area.

In the corpus, 254 out of 433 instances have been judged to refer to objects that have two dimensions extending in the horizontal plane. One example is shown in (141).

- (141) Bilen rullade fram längs en *bred boulevard*, klart upplyst av gatlyktor på båda sidor, rader av palmer och gröna gräsmattor som försvann in i mörkret, med svepande uppfartsvägar till stora, vita byggnader med väldiga rabatter av blommor och buskar framför sig. (B76–77) ‘The car was driving along a wide boulevard, clearly illuminated by streetlamps on both sides, rows of palm trees and green lawns that disappeared into the dark, with sweeping driveways leading to large, white buildings with enormous flowerbeds and bushes in front.’

The object, referred to as *boulevard* ‘boulevard’, is two-dimensional. In the elicitation test, 13 out of 29 nouns referred to objects with their main dimensions extended in the horizontal plane. Examples are *motorväg* ‘motorway’, *fil* ‘lane’, and *gata* ‘street’.

In the corpus, there is a smaller, yet important group (36 out of 433 instances) where *bred* ‘broad/wide’ refers to an object, whose main dimensions canonically are extended in a vertical plane. Such an example is shown in (142).

- (142) Tanterna höll på att ta sig in genom en *bred branddörr* av plåt. (B76–77) ‘The ladies were on their way in through a wide fire door of sheet metal.’

In section 6.4.5, it is argued that the door of example (142) is perceived as two-dimensional. In the elicitation test, 8 of the 29 nouns referred to such objects. Examples are *vägg* ‘wall’ and *ladugårdsdörr* ‘barn door’.

An even smaller group (24 out of 433 instances) consists of instances where *bred* ‘broad/wide’ refers to objects that extend in two dimensions with no specified orientation. Such an example is shown in (143).

- (143) Små fåglar flaxade omkring bland svartvinbärsbuskarnas *breda blad*. (B76–77) ‘Small birds fluttered about in the broad leaves of the blackcurrant bushes.’

The objects referred to by *blad* ‘leaf’ can have any orientation – in the vertical plane, in the horizontal plane, or in a diagonal plane. In section 6.4.5, it is argued that the leaf in example (143) is regarded as two-dimensional. There were no such nouns among the data from the elicitation test.

Another group in the corpus is formed by instances where *bred* ‘broad/wide’ refers to non-flat objects with three-dimensional extension. This group contains 100 members and includes references to furniture, vehicles and towers among other things. One example is shown in (144).

- (144) Djupa *breda lädersoffor* i oxblod och låga bord i rökfärgat glas. (B76–77) ‘Deep, wide leather couches in oxblood red and low tables with smoked glass.’

In the elicitation test, 7 of the 29 nouns referred to such objects. As will be discussed in the next section, the objects referred to as *bred* ‘broad/wide’ usually have a canonical orientation, which means they either have a front and/or a top.

## 6.4.2 *Bred* ‘broad/wide’ as referring to a dimension, extending to the sides

As indicated in section 6.2, Athanasiadou (2001) argues that English *broad* expresses how much something is spread, alternatively how much area something covers. She illustrates this with two sketches, of which one is reproduced in Figure 10 (the other one is shown in Chapter 7 on *vid* ‘broad’, page 155).

For Swedish, the ungrammaticality of *\*brett ut* ‘broad/wide out’ and *\*brett in* ‘broad/wide in’ and the fact that *brett isär* ‘wide apart’ is well-formed indicates that *bred* ‘broad/wide’ refers to a dimension, which extends simultaneously from a starting point in the middle to either side of the object, as illustrated in Figure 10. The verb *breda ut* ‘spread’ refers to a process where some object, for example a tablecloth, is extended in two or four directions.<sup>28</sup>

<sup>28</sup> Note that *brett ut* as past participle of *breda ut* ‘spread out’ is well-formed.



Figure 10. *Broad* – Extent of something spread. After Athanasiadou (2001:5)

According to Rakhilina (2000), Russian *širokij* ‘wide’ refers to an object, at whose mid-point the observer is located. This position enables the observer to see both ends of the object. For Swedish, it seems as if the dimension, referred to as *bred* ‘broad/wide’, must be visible in the vision field, which means that it must be possible to see the entire extension at the same time. Objects referred to as *hög* ‘high’ may disappear up into the sky, like skyscrapers which are concealed by clouds. Likewise, objects referred to as *djup* ‘deep’ may well disappear into the ground, like a deep well. Objects referred to as *lång* ‘long’ may extend out of the vision field, as is the case with long rivers or roads. *Bred* ‘broad/wide’, on the other hand, refers to objects which are within the limits of the visual field. For the adjectives *hög* ‘high’, *djup* ‘deep’ and *lång* ‘long’, it is possible to say something like *den känns hög/djup/lång* ‘it feels high/deep/long’ or *den verkar hög/djup/lång* ‘it seems high/deep/long’. However, *den känns bred* ‘it feels wide’ and *den verkar bred* ‘it seems broad/wide’ is either interpreted metaphorically (such as *en bred film* ‘a wide-ranging film’) or, if the object extends fully within the vision field, to imply that it still “does not feel right”, such as when discussing whether a certain painting or piece of furniture actually does go with the rest of the room.

In the corpus, the great majority of the objects in the examples are those where it is possible to see the entire dimension referred to as *bred* ‘broad/wide’, at a glance. One such example is shown in (145).

- (145) En *bred spiraltrappa* ledde ned. (B76–77) ‘A broad spiral staircase led down.’

In the elicitation test, all the nouns referred to objects that it was possible to view in their entirety. There are six instances in the corpus, where the dimension, referred to as *bred* ‘broad/wide’, is clearly not totally visible. In (146), one of these five examples is found.

- (146) Nickedocka – höger, vänster, oppåt och neråt – inte en rörelse i den långa, *breda avverkningsyta* som åt öster sluttar ner från Tjurkullen skulle undgå mej. (B80–81) ‘Puppet – right, left, up and down – no movement would

escape me in the long wide cleared area sloping down to the east from Tjurkullen.’

The text is about a man on a hunting expedition. He is expecting a wounded prey to appear in a clearing, and in order not to miss it, he keeps turning his head: to the right, to the left, up and down, so as to cover the whole area. Here, the dimension referred to as *bred* ‘broad/wide’ extends beyond the field of vision, however, if the viewer turns his head, the entire area can be viewed.

Four examples concern measure phrases, see (147), and the last example concerns a construction *så bred att* ‘so wide that’, which resembles a measure phrase in that it provides a measure (but not in numbers), see (148). Here, *bred* ‘broad/wide’ is used in its unmarked sense.

(147) I försvarslinjens ytterkant låg det så kallade “dödsbältet”, cirka femtio famnar *brett*, som aldrig beträddes av någon utom av dem som hade till uppgift att vidmakthålla det. (B76–77) ‘On the outer edge of the defence line was the so-called “death belt”, approximately 100 yards wide, where no-one ever set foot apart from those whose task it was to hold it.’

(148) Ni har utan att be oss undersåtar om lov planerat och redan stakat ut en förbannad *kraftledningsgata* som ska bli så *bred* att en hel trakt förstörs och dessa ledningar hava ni tänkt dra på trettio säger trettio meter höga järn- eller stålvidunder från ett förbannat kärnkraftverk allt för den snöda penningen. (B76–77) ‘Without asking us subjects for permission, you have planned and already marked out a damned powerline clearing in the forest that will be so wide that a whole area will be destroyed, and you have planned to support the cables on 30, I repeat, 30 metre high iron or steel monstrosities from a damned nuclear power plant, all for filthy lucre.’

It is possible that the comprehension of the left-right dimension includes its restriction within the visual field. When objects are extremely extended, like rivers or roads, we tend not to speak of them as going from the left to the right (concerning their maximal dimension) but prefer to use cardinal directions (from north to south) or landmarks such as *Vägen går mellan Slussen och Skanstull* ‘the road goes from Slussen to Skanstull’. My intuitive understanding is therefore that if a dimension extends to the left and to the right, like the dimension referred to as *bred* ‘broad/wide’, it must remain within the visual field. Thus, I have not formulated a separate quality involving restriction of the dimension to the visual field, since I consider this quality to be incorporated in the quality of a left-right dimension.

*Bred* ‘broad/wide’ may also refer to the smaller horizontal dimension, as claimed in 6.3 and which is further discussed in 6.4.5. In order to judge what dimension is the smaller one, at least one of the dimensions must be extended within the visual field.

As mentioned in section 6.4.1, *bred* ‘broad/wide’ refers to a two-dimensional area in the majority of the instances in the corpus. The under-

standing of such objects as two-dimensional is discussed in section 6.4.5. Here roads, streets, driveways, paths and rivers are well represented. In the elicitation test, 11 of the 29 nouns referred to objects of this type. The dimension referred to as *bred* ‘broad/wide’ then determines how much space there will be on either side of a body or vehicle that is negotiating this area or how many bodies or vehicles that can fit side by side.

(149) *Muren* var så *bred* att två vagnar med fyrspann kunde mötas där, den hade åtta portar varifrån vägar utgick i alla fyra väderstrecken, och långa led av människor syntes skynda fram där, gående, ridande eller åkande i vagnar, på väg ut ur eller in i staden. (B76–77) ‘The wall was so wide that there was room for one coach and fours to pass another; it had eight gates from which roads led in all four directions, and long lines of people were seen hurrying along, walking, riding or in carriages, on their way out of or into town.’

(150) Till en början var *vägen* så pass *bred* att Lionel kunde rida bredvid mig. (B80–81) ‘To begin with the road was wide enough for Lionel to ride alongside me.’

Also when *bred* ‘broad/wide’ refers to objects which do not form roads or paths, the adjective may refer to a dimension which determines how much space the body has on either side:

(151) *Sängarna* var så pass *breda* att två kunde ligga där bekvämt (B80–81) ‘The beds were wide enough to accommodate two people comfortably.’

(152) [...] *stallporten*. Den var också så *bred* att man kunde köra in med häst och vagn. (B76–77) [...] stable door. It was also wide enough to drive a horse and carriage through it.’

(153) Hon drog med sig Nora fram till en oval *rokospiegel*, *bred* nog för dem båda. (B76–77) ‘She dragged Nora up to an oval *rococo mirror*, wide enough for both of them.’

*Bred* ‘broad/wide’ referring to ‘enough space for the human body (to pass, to be) in the left-right dimension’ can be seen in several of the corpus instances, and could be a candidate for a central sense for the adjective, from which other uses (including the proportion-system) are abstracted. In the elicitation test, 14 out of 29 nouns referred to such nouns, including *väg* ‘road’, *säng* ‘bed’ and *jeep* ‘jeep’. This includes the 11 nouns referring to two-dimensional areas discussed previously in this section. This sense can be related to the image schema Path, as described by Lakoff and Johnson (1980). The human body appears to be more present in the analysis of *bred* ‘broad/wide’ than was the case for *hög* ‘high/tall’ and than is the case for the adjectives *djup* ‘deep’ and *lång* ‘long’, as will be shown in the following chapters. Zubin and Choi (1984) and Lang (1989), to mention only a few, invoke a human being acting as observer to analyse the semantics of WIDE. Thus, in my opinion, the semantics of *bred* ‘broad/wide’ should be described as a network model.

While the concept of path seems central for *bred* ‘broad/wide’, another concept, passage, is central for *vid* ‘broad’, as will be shown in Chapter 7 on *vid* ‘broad’. There are overlaps between the adjectives.

### 6.4.3 Canonical orientation and functional situation

As reported in section 6.2, Bierwisch (1967) rather tentatively discerns two systems, an oriented one involving the observer’s line of sight and a non-oriented one with objects described only according to their proportions. Since then, other researchers have developed his approach, with the result that a certain consensus has emerged about the two different uses of WIDE, with one system taking orientation into account and the other proportions (see Lyons 1977, Talmy 1983, Zubin and Choi 1984, Lang 1989, 2001, Vandeloise 1988 and Spang-Hanssen 1990).

In Swedish, too, it seems that *bred* ‘broad/wide’ may either take orientation and an observer/user into account on the one hand, or proportions on the other. In real life, this ambiguity of *bred* ‘broad/wide’ may give rise to misunderstanding, as when discussing the measurements of a couch. Application of the first system, hereafter referred to as the functional system, would interpret *bred* ‘broad/wide’ as referring to the left-right dimension, whereas in the second system, hereafter referred to as the proportion-system, *bred* ‘broad/wide’ refers to the smaller horizontal dimension. As can be seen in Figure 11, the systems conflict for a couch. In the corpus, the majority of instances refer to objects with canonical orientation which determines that one side is the front and/or one side the top. In the elicitation test, all objects had fronts and/or tops, including streets, paths, etc. This will be dealt with in more detail later in this section.

Vandeloise (1988) thinks that paths form one of three object types which are important when understanding the meaning of English *wide*. For paths, *width* has the somewhat mystical definition: “the length/width of a linear entity or of a path is its extent evaluated along its actual shape/a direction perpendicular to its actual shape” (Vandeloise 1988:406). An example is a road. Its *length* is measured along its actual shape (by stressing the actual shape, Vandeloise wants to point out the fact that the length of a road is not measured along the shortest way from its starting-point to its end, but along its windings), and its *width* is the dimension perpendicular to the *length*. Thus, Vandeloise partly ties the meaning of *wide* to the concept of Path, as was suggested in section 6.4.2 for *bred* ‘broad/wide’. According to Lyons (1977), for objects that have no front *width* is perpendicular to the *length* which extends from end to end. The largest group in the corpus consists of instances where *bred* ‘broad/wide’ combines with a noun referring to an object which forms, or is comprehended (for reasons I will discuss in section 6.4.5) as a two-dimensional area extending in the horizontal plane

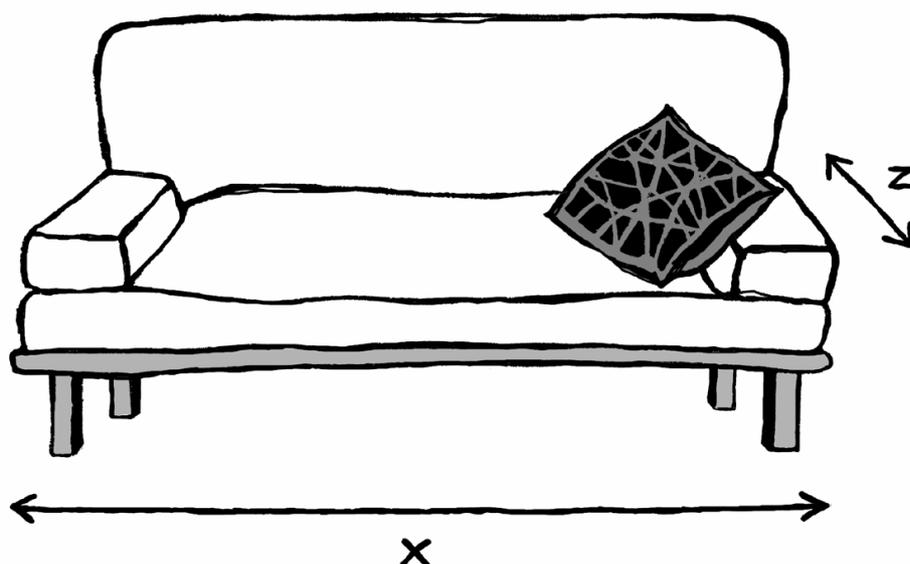


Figure 11. A couch. Arrows indicating two separate dimensions, which may both be described as *bred* ‘broad/wide’

(254 out of 433 instances).<sup>29</sup> In the elicitation test, 13 out of 29 nouns referred to such objects. Lang (1993) refers to objects such as rivers as having fixed orientation, but for my purposes I see no need to separate fixed orientation from canonical orientation so I categorise objects such as roads, rivers, and paths as having canonical orientation. These objects have tops, but no fronts. Most of these objects do qualify as paths. Two examples are shown in (154)–(155).

(154) Tvärs över trädgården, från den östra grinden till den västra, gick en *bred allé* av äppelträd som sträckte sina grenar mot varandra och tycktes hålla varandra i hand. (B76–77) ‘Right across the garden, from the gate on the east side to the one on the west side, ran a wide avenue of apple trees, extending their branches towards one another as if holding hands.’

(155) *Trappan* mot ingångsdörren var *bred* och välkomnande. (B76–77) ‘The steps up to the entrance were broad and welcoming.’

The avenue of (154) is a two-dimensional surface, bordered, however, by three-dimensional trees. I have counted both the avenue and examples of tunnels as two-dimensional surfaces. The staircase of (155) may be considered a borderline-case, since stairs certainly extend in three-dimensional space. Still, the staircase is a typical Path in the sense that the noun-phrase *trappan* ‘the staircase’ alone may constitute an adverbial in a sentence (*gå trappan* ‘go (up/down) the stairs’). This requirement for Path has been taken from Teleman et al. (1999:Chapter 16, §24, 52).

<sup>29</sup> In eight instances, the surface has a depth, too, thus forming a three-dimensional object, such as a river or a crevasse.

In section 6.4.2, I mentioned that the human body is actively invoked in the semantics of *bred* ‘broad/wide’. Lyons (1977) and Vandeloise (1988) prefer not to involve a human being in the analysis, at least not at this stage (Vandeloise introduces a human being later on). Other authors, such as Lang (1989, 2001) and Zubin and Choi (1984) prefer to describe WIDE with the help of an observer, whose vantage point and vision field determines what axis is considered WIDE.

My approach is that human perception plays a significant role in the analysis of *bred* ‘broad/wide’, for reasons already mentioned in 6.4.2. However, I believe that phenomena like vantage point and perspective lead to associations with a human gaze some distance away from the object referred to as *bred* ‘broad/wide’. A human being walking along a path will certainly have (the rest of) the path in view but the gaze of someone sitting on a bench does not include the left-right dimension of the bench. Zubin and Choi (1984) and Lang (1989) would address this issue as the bench extending in the left-right axis for a person looking at the bench. For an object with such an obvious function (as sitting on the bench), I prefer to tie *bred* ‘broad/wide’ to how people use the object rather than how they regard it from a distance. Therefore, for the sake of a unified analysis I would prefer to omit such phenomena as vantage point and perspective in favour of a functional situation involving the interaction of a human being and the object.

What are paths used for? Human beings tend to proceed along paths. We may easily imagine a situation in which someone is walking along a path. Thus, there is a functional situation, tied to the path. The human being is on the path, facing its maximal extension, while its minimal extension forms the left-right axis. I would like to label this (uncontroversial) situation as a functional situation, and, furthermore as a canonical functional situation since it is the preferred way to “use” a path. The dimension referred to as *bred* ‘broad/wide’ will at the same time be the smaller horizontal dimension, see section 6.4.5 for further discussion, and it will be the left-right dimension for the user.

I would like to ascribe a central status to the path in relation to the semantics of *bred* ‘broad/wide’. A majority of the uses of *bred* ‘broad/wide’ can be directly associated to paths (*bred väg* ‘wide road’, *bred flod* ‘wide river’, *bred trappa* ‘wide staircase’). The central case describes an object that serves as a path. Within this case, *bred väg* ‘wide road’ is a prototypical use. Other uses in which the left-right dimensions of objects that do not function as paths are described belong to the same case but can be more or less peripheral. In the network model, one more case can be discerned. This concerns the sense in which *bred* ‘broad/wide’ describes the smaller horizontal dimension, see section 6.4.5. The comparison test motivates the separation of the two cases. A comparison between two objects cannot be performed if *bred* ‘broad/wide’ refers to the left-right dimension for the first object and the smaller horizontal dimension for the second object. An

utterance like *soffan är bredare än bordet* ‘the couch is wider than the desk’ cannot be interpreted as a comparison of the left-right dimension (the longest dimension) of the couch to the smaller horizontal dimension of the desk.

As mentioned in 6.2, Lyons (1977) claims that for objects with a front the *width* is from side to side. Spang-Hanssen (1990) is of the opinion that for oriented objects with fronts, *largeur* ‘width’ will be measured along the horizontal dimension of the front. Finally, Vandeloise (1988) distinguishes between further two types of objects in his account of the perspective-system. For mobile entities, *width* is evaluated along a direction, which is perpendicular to the direction of movement. Regarding immobile multi-dimensional entities, like houses, *width* is the dimension along a direction perpendicular to the speaker’s general orientation.

In the corpus, a relatively small number of instances involve the use of *bred* ‘broad/wide’ with objects that have fronts (30 out of 433 instances). The elicitation data included 4 such nouns, *traktor* ‘tractor’, *jeep* ‘jeep’, *hus* ‘house’ and *skola* ‘school’. This is remarkably few, in view of the great focus in related research on the description of objects such as couches, desks and cars (see Lang 1989 and Vandeloise 1988 among others). Two examples from the corpus can be seen in (156)–(157).

(156) De två *breda*, mjuka *sofforna* mitt emot varann var beigefärgade. (B80–81)  
‘The two wide, soft couches opposite each other were beige.’

(157) *Eldstaden* gick i stil med rummet för övrigt. Den var av skulpterad marmor och mycket *bred*. (B76–77) ‘The fireplace complemented the style of the rest of the room. It was carved in marble and very wide.’

The first of these examples corresponds to classic examples of couches and desks (see Bierwisch 1967, Lyons 1977, Zubin and Choi 1984, and Lang 1989 among others) in which what I refer to as the proportion-system designates one dimension as WIDE (the smaller horizontal one), and what I refer to as the functional system indicates another (the left-right one).

The canonical functional situation for a couch is obviously to provide somewhere to sit. Several functional situations are possible for the fireplace: to arrange the fire, to poke the fire, to look at the fire, to clean the fireplace. It is difficult to say which is the more canonical, but these situations would seem to require the user to face the fireplace. The left-right dimension for the user will be called *bred* ‘broad/wide’ for both the couch and the fireplace. In section 6.4.4, more prominence is given to instances where *bred* ‘broad/wide’ refers to objects that lack canonical functional situations.

The relationship between the human being and the couch/fireplace resembles the relationship between the human being and a path in the sense that the dimensions referred to as *bred* ‘broad/wide’ will be the left-right one, and (for the couch) the extension of the object’s left-right dimension will determine how much space there is to the left and to the right of the human being. This use may be regarded a member of the simple category

corresponding to the central case. It lacks the function of path and is considered more peripheral, compared to uses referring to objects functioning as paths.

Regarding moving objects, such as cars, the left-right dimension of the user (driver or passenger) will be referred to as *bred* ‘broad/wide’, see (158).

- (158) Utom bussarna, *bussarna* var så *breda* att de inte kunde hålla undan utan att byta fil. (B76–77) ‘Apart from the buses, the buses were so wide that they could not avoid it without changing lane.’

Here, it is not the space inside the bus (the space that is available for the driver) that is regarded, but the space that the bus occupies on the road. Hence, the bus plays the part (trajector) otherwise occupied by the human being.

My analysis of *bred* ‘broad/wide’ resembles Vandeloise’s (1988) ideas, since direction of movement, for mobile entities, mostly corresponds to the front-back axis of a user (driver/passenger). This means that the dimension perpendicular to the direction of movement, which is the dimension referred to as *wide* according to Vandeloise, coincides with the left-right axis for the user (driver/passenger), which is the dimension I suggest is referred to as *bred* ‘broad/wide’. Vandeloise (as opposed to Lyons 1977 and Spang-Hanssen 1990) avoids tying the semantics of *wide* to the front of the object. He points out that not all objects move in a frontal direction, and he considers the direction of movement a stronger criterion for *wide* than the front. Vandeloise refers to crabs, which have a frontal orientation, where the eyes are, but move in another direction. However, such subtleties do not seem relevant for my purposes. Crabs are not described as *bred* ‘broad/wide’ no matter how they move (because of their shape, see section 6.4.6 for reasons for this). For Vandeloise’s second object type, immobile multidimensional entities, according to his analysis, *wide* is used to refer to a dimension perpendicular to the speaker’s general orientation, which evidently corresponds to the human being’s position in the canonical functional situation.

Vandeloise’s second object type, immobile multidimensional objects, is also applicable for objects with no front but a canonical top, such as doors and towers. In my corpus, occurrences of *bred* ‘broad/wide’ referring to such objects, form a rather large group. First, there is one subgroup, containing instances where *bred* ‘broad/wide’ combines with a noun referring to an object which forms or is perceived (for reasons I will come back to in section 6.4.5) as a two-dimensional area extending in the vertical plane (37 out of 433 instances). These are objects like windows, doors and gates. In the elicitation test, 4 out of 29 nouns referred to such objects. These objects exhibit canonical orientation, too. They have a canonical vertical orientation but lack fronts. Then, there is another subgroup in the corpus containing instances where *bred* ‘broad/wide’ combines with a noun

that refers to a three-dimensional object with a canonical vertical orientation but no canonical front. Such objects are chimney, tower, ice-pillar and platform. Beds (34 instances) and bench (1 instance) may contextually, because their position in a room, be attributed a front but may otherwise be viewed as having a canonical top only and no canonical front. There was one occurrence of *säng* ‘bed’ in the elicitation data. Beds form a group between the group where *bred* ‘broad/wide’ combines with a noun, referring to a three-dimensional object having a canonical top but no front, and the group where *bred* ‘broad/wide’ combines with a noun, referring to a three-dimensional object having both a canonical top and a canonical front.

In (159)–(162), four examples of this kind are shown. The first one concerns an object, which is comprehended as two-dimensional, see (159), while the rest concern three-dimensional objects.

- (159) Ljus strömmade ut från de *breda fönstren* på havssidan. (B76–77) ‘Light poured out from the wide windows on the side facing the sea.’
- (160) Långsamt klättrar orden uppför loftrappan, tar sig obevekligt fram över vindsgolvets andlösa brädor, stiger över den *breda tröskeln* och rullar fram till fönstret där jag står [...] (B80–81) ‘Slowly the words clamber up the attic stairs, make their way unrelentingly over the breathless attic floorboards, cross the wide threshold and roll up to the window at which I am standing [...]’
- (161) En hög spegel med tjock mahognyram, glatta läderfåtöljer, *sängen bred* med snirklade stolpar, svällande bolster, en kommod med tvättporslin i rött och vitt. (B80–81) ‘A high mirror with a thick mahogany frame, smooth leather armchairs, the bed, wide with ornate posts, a thick eiderdown, a commode with a porcelain washbasin and jug in red and white.’
- (162) I skenet från lyktan på det *breda* fyrkantiga *tornet* kunde Johan och Olle se hur de nästan genomskinliga snöflingorna dalade som prickar mot marken. (B76–77) ‘In the light of the lantern on the wide square tower Johan and Olle could see how the almost transparent snowflakes fell like specks to the ground.’

In example (159), the canonical functional situation for a human being would be to look through the window and therefore adopt a position in which the dimension referred to as *bred* ‘broad/wide’ will be the left-right one. It can be argued that windows are not constructed in order to be looked through, but rather to let light through, light that may be used when working, eating and performing other activities where a person is not facing the window. This is true; however, analysing such objects as Lang (1989) or Vandeloise (1988) do in terms of the general orientation of a speaker/observer encounters, or will encounter, the same problem. It may well be that a window is described in analogy to how doors and gates are described.

In example (160), a three-dimensional object with a canonical top is described as *bred* ‘broad/wide’. The canonical functional situation involves a person crossing the threshold, as is expressed in the example. The left-

right axis of the human being will coincide with the left-right axis of the threshold. In example (161), the canonical functional situation is to lie in the bed. An example of this kind provides, in my opinion, a good argument for not invoking perspective but functional situation instead as one component of the analysis. A person lying in the bed has little perspective over the bed and, may approach it to lie down from either side, thus weakening the idea of WIDE as perpendicular to an observer's line of sight/speaker's general orientation. In example (162), it seems difficult to find a canonical functional situation. It is likely that any side approached by human beings could be referred to as *bred* 'broad/wide'. This is an instance where the actual functional situation better explains the use of *bred* 'broad/wide', see section 6.4.4.

To sum up, in the great majority of cases, *bred* 'broad/wide' combines with a noun that refers to objects with a canonical orientation. The objects mostly have a side designated as the top, but no front. In the elicitation test, streets and roads were ranked highest.

#### 6.4.4 The actual functional situation

As mentioned in 6.2, Lang (1989, 2001) and Zubin and Choi (1984) describe WIDE with the help of an observer whose vantage point and vision field determines which axis it is to apply to. Vandeloise (1988) considers that for immobile multidimensional entities, like houses, *width* is the dimension along a direction perpendicular to the speaker's general orientation.

For an object which has a clearly canonical functional situation associated with it, it can be the case that alternative (non-canonical) functional situations occur. A bed has a clearly canonical functional situation (to lie on it) that determines which dimension is the left-right one for a user and therefore to be referred to as *bred* 'broad/wide'. However, the bed can also be used for sitting on, for barricading the door, for hiding under, for sliding between two other pieces of furniture for storage, etc. These less preferred situations are actual functional situations.

In Figure 12, a scenario is shown where a bed is to be slid into a space between two boxes. An utterance as *hur bred är sängen?* 'how wide is the bed?' can be interpreted as asking for the dimension  $x$ , which is the left-right dimension that is tied to the actual functional situation, that of pushing the bed into a space between two boxes. The dimension  $x$  is not the left-right dimension that is linked to the preferred (canonical) functional situation, since that is the dimension  $y$ . Note that the utterance also could be interpreted as asking for the width of the bed as in the canonical functional situation, i.e. the dimension  $y$ . Here it is clear that the dimensions called *bred* 'broad/wide' can conflict, just as is the case when a bookcase is tilted and one is asking for its height, since it can either be the canonical vertical extension or its actual vertical extension, see Chapter 5.

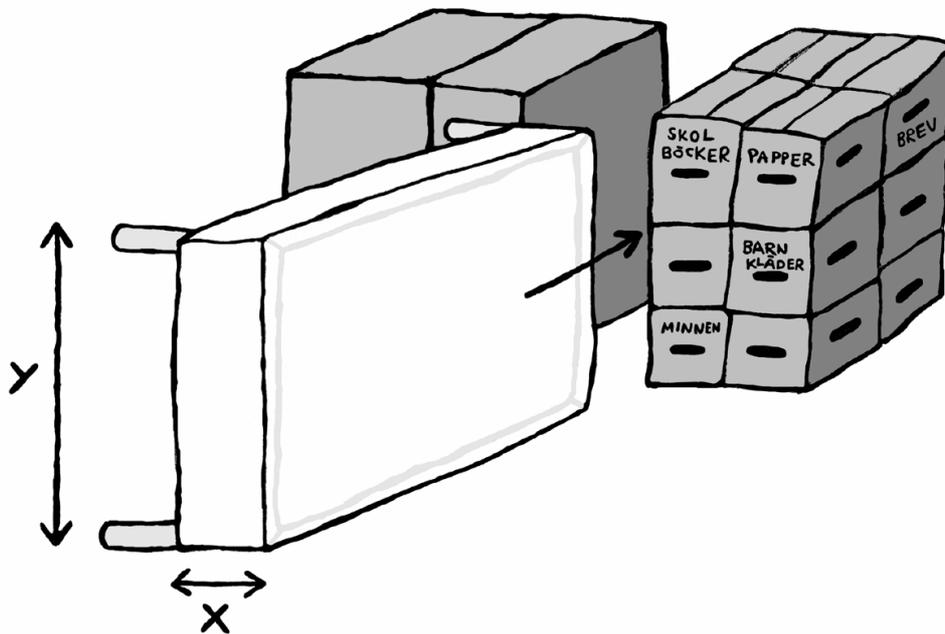


Figure 12. A bed is to be slid between to boxes.

The user and the object can combine in different constellations when it comes to functional situations. For *bred* ‘broad/wide’, there are never more than three possibilities, which relate directly to the number of dimensions. For a three-dimensional object, like a washing machine, a potential user can face the front or the back, either of its two sides (for example when cleaning it), or can lie on the ground with the vertical dimension as the left-right dimension. In Figure 13, picture a, *bred* ‘broad/wide’ refers to dimension  $x$  of the washing machine. In Figure 13, picture b, it refers to dimension  $z$  and in Figure 13, picture c, dimension  $y$ . Since Figure 13, picture a, shows the canonical functional situation, the phrase *Hur bred är din nya tvättmaskin* ‘How wide is your new washing machine?’ would probably be interpreted as referring to dimension  $x$  unless some further information was provided.

Some objects do not have one preferred relationship between the orientation of the body and the object. These either have a front, or, in the case of the bed, a top. If an object has a front, the user will either face the front (like a washing machine) or have parallel fronts (like a car), and there will be one dimension that is canonically the left-right dimension. If an object has a top and has one preferred orientation to the user, like a bed (since it is very uncomfortable to lie across the bed so that head and feet project), the object will have a canonical left-right dimension. But for objects that lack these qualities, no dimension will be the canonical left-right one. We may think of the kind of multi-purpose table found in a domestic setting, as in Figure 14. Depending on what the user is doing, he or she may sit at different sides – either at the largest non-vertical side or

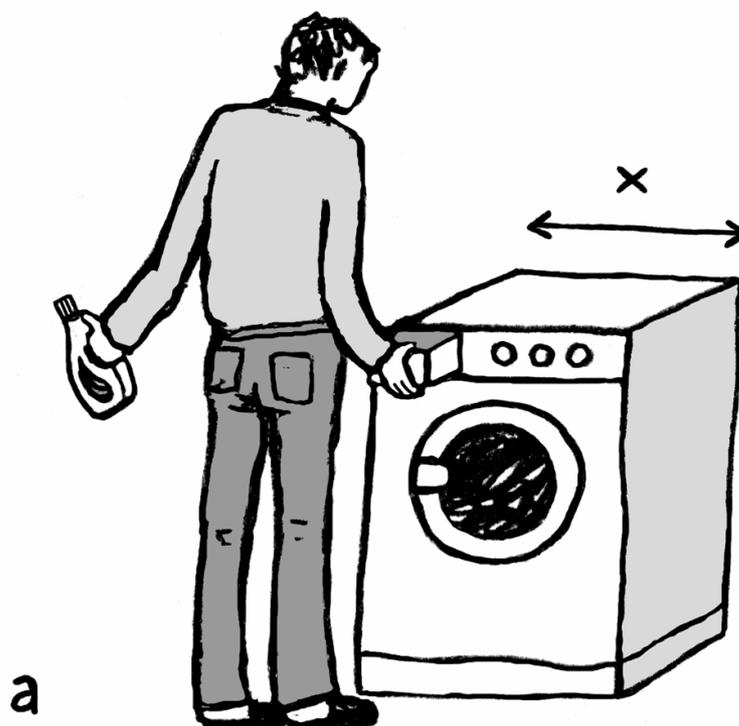
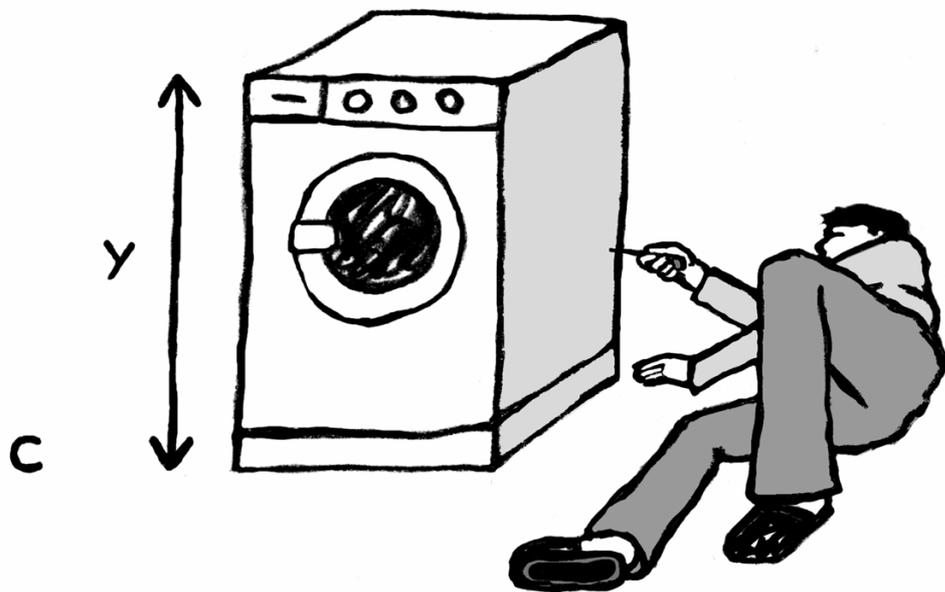


Figure 13 a, b, c. A washing machine and a user in three different constellations

the smaller horizontal side. Other examples, where the object and the user do not have one preferred orientation to each other are boxes and bricks. When there is no preference about orientation, there is no canonical functional situation to determine the object's left-right extension. The dimension parallel to the body's left-right dimension in an actual situation will be called *bred* 'broad/wide'. If the user is sitting at the table, *bred* 'broad/wide' can be used about the dimension parallel with the body's left-right dimension. But if he or she changes places to sit at another side, the dimension that becomes parallel with the body's left-right dimension will be *bred* 'broad/wide'.

If *Hur bredt är bordet?* 'How wide is the table?' is uttered regarding the functional situation illustrated in Figure 14, picture a, it concerns dimension  $x$  but dimension  $z$  in the functional situation in Figure 14, picture b.

However, in comparison with the functional situation in Figure 14, picture c, where *bred* 'broad/wide' refers to dimension  $y$ , greater preference must be given to the functional situations of Figure 14, picture a and b. Overall, it must be said that the functional sense of *bred* 'broad/wide' describing a vertical dimension, as in Figure 14, picture c, is rare, since lying prone is not a very common or productive position for interaction with



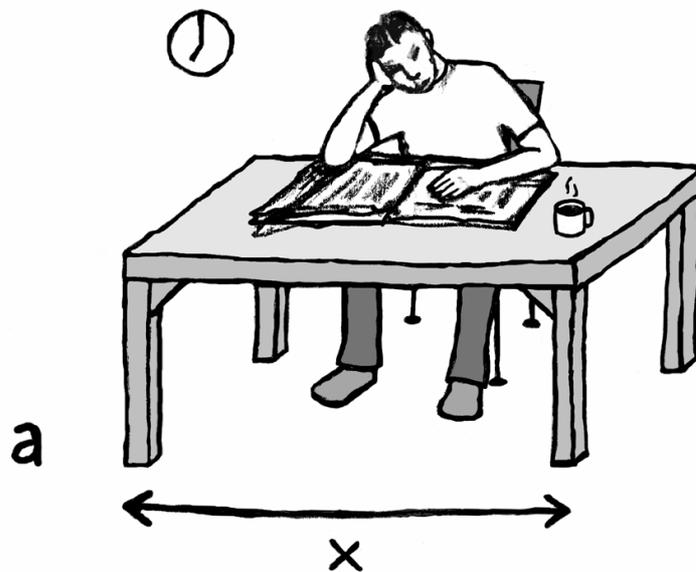


Figure 14 a, b, c. A human being and a table in three different constellations

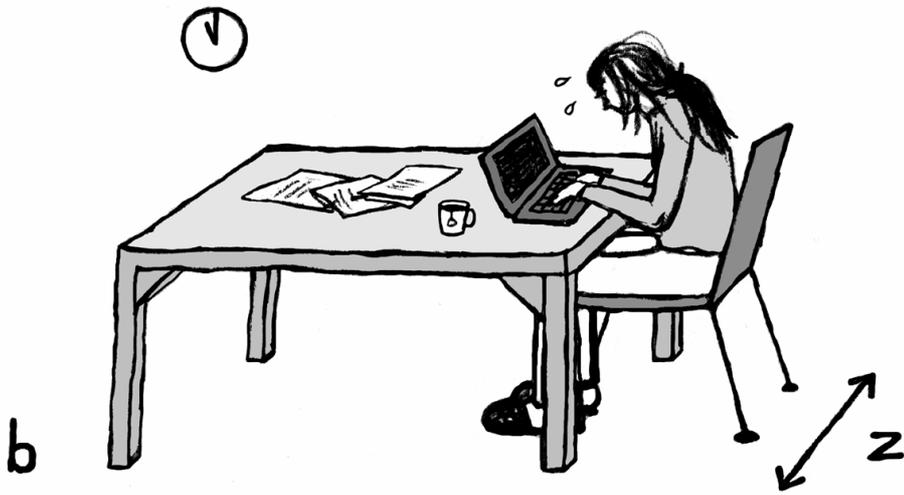
objects. Some native speakers will not accept that this dimension can be referred to using *bred* 'broad/wide'.

In the corpus, there is a rather small group consisting of instances where *bred* 'broad/wide' combines with a noun that refers to an object (two- or three-dimensional) that lacks canonical orientation and therefore both top and front. Such objects are a board, lumps of snow, rings, light and ribbons. The group contains 36 members. One example is given in (163). There is also smaller a group, where *bred* 'broad/wide' combines with nouns referring to objects which do have a canonical top but where it seems difficult to determine a canonical functional situation for their interaction with a user. This group contains fewer than 10 members. One example can be found in (162), repeated here as (164).

(163) Det gick bra, och den långa, ljusst ådriga *plankan* lossnade. Den var så *bred* att den räckte till två spjälor. (B76–77) 'It went well, and the long, light-grained plank came loose. It was so wide that it was enough for two splints.'

(164) I skenet från lyktan på det *breda* fyrkantiga *tornet* kunde Johan och Olle se hur de nästan genomskinliga snöflingorna dalade som prickar mot marken. (B76–77) 'In the light of the lantern on the wide square tower Johan and Olle could see how the almost transparent snowflakes fell like specks to the ground.'

The board in example (163) has no canonical orientation, and no canonical functional situation associated with it. It is assumed that the person present



in the text, from which (163) is collected, interacts with the board in such a way that one dimension of the board is determined as the left-right one. The tower of (164) has probably no canonical functional situation tied to it. The side, which is approached by or observed by the users, will be referred to as *bred* ‘broad/wide’. There were no such nouns in the elicitation test. It can be noted that some objects with a canonical top but no canonical front will be ascribed a front because of their location in a room or towards a street, etc. Beds have already been mentioned as a borderline-case, see 6.4.3. Other objects may be platforms, and chimneys. In (165), the chimney can be considered to have been ascribed a front because it is facing the room.

(165) En väldig eldstad med *bred skorsten* dominerade hela rummet. (B80–81)  
 ‘An enormous fireplace with a wide chimney dominated the whole room.’

The board of (163) would receive the same description if the dimension, referred to as *bred* ‘broad/wide’ were labelled according to the proportion-system. The dimension referred to as *bred* ‘broad/wide’ is the smaller one in the horizontal plane. This kind of description is discussed in section 6.4.5.

### 6.4.5 The (smaller) horizontal dimension

From the report on related research in section 6.2, some essential points regarding dimensions may be summarised. According to Bierwisch (1967), German *breit* ‘wide’ is a secondary dimension, which means it is second in hierarchy. The dimension is non-vertical. According to Weydt and Schlieben-Lange (1998), *breit* ‘wide’ appears in a second phase of labelling the dimensions. Lafrenz (1983) suggests that if an object has two main dimensions, neither of them vertical, the smaller one will be referred to as *breit* ‘wide’. Lang (2001) claims that for objects described according to the Inherent Proportion Schema, WIDE will be reserved for a dimension, which is neither maximal, nor minimal. Vandeloise singles out a metric definition for wide (among three other definitions, see section 6.4.3), according to which the smallest non-vertical extent will be described as *wide*. Spang-Hanssen (1990) proposes that for non-oriented objects, French *largeur* ‘width’ will be assigned to an object once the vertical dimension and the maximal extension have received their labels. According to Lyons (1977), *wide* refers to the second greatest dimension of an object, but only if the dimension is significantly greater than the minimal extension (if there is one). Finally, Linde-Usiekniewicz (2000) makes no suggestions related to proportions and orientation, but claims that WIDTH is an axis relevant to the size of some relevant flat area.

In Swedish, too, *bred* ‘broad/wide’ can describe a dimension without taking the relation between the user and the object, in terms of positions, into consideration. The adjective behaves differently with objects that are two-dimensional (like a film screen or a road) and three-dimensional ones

(like a building). The objects referred to as *bred* ‘broad’, need not actually be two-dimensional, but may be so perceived anyway.

Herskovits (1986) explores geometric descriptions in relation to spatial expressions. She suggests that in certain cases of spatial expressions an idealisation is performed to approximate a region of space to an idealisation. An example is the expression *the cat on the grass* where the grass is approximated to a surface. Another example is *the top of the cloud cover is at 3000 feet* where the cloud cover is approximated to a horizontal plane (Herskovits 1986:67–68). Fillmore (1997:29), partly by referring to Leech (1975), discusses how the use of the English prepositions *on*, *in* and *at* reveals the way we treat objects. *In* is used for three-dimensional space while *on* is used for areas. This is exemplified by the two expressions *in the grass* and *on the grass*, where the former utterance either is about a very small object or about tall grass.

Jackendoff and Landau (1991) suggests that there are two-dimensional shape terms like *square*, *circle*, *oval*, *trapezoid*, and so on, and then general terms for “thickened surfaces”, such as *slab*, *sheet*, *layer*, *slice*, *lamina*, and *stratum*. “Generalizing beyond nouns, the adjectives *thick* and *thin* can also be seen to place a metric on the elaboration of a surface into a volume [...]” (Jackendoff and Landau 1991:149.)

Windows, inner and outer walls, mats, and sheets of paper are objects that may be comprehended as two-dimensional surfaces. The third dimension is often referred to using *tjock* ‘thick’, which indicates that the dimension is disregarded in a first description, as suggested by Jackendoff and Landau (1991) and further discussed in Chapter 8 (*tjock matta* ‘thick mat’, *tunn glasruta* ‘thin pane of glass’, *tjocka väggar* ‘thick walls’). The smaller of the two dimensions of the primary description will be referred to as *bred* ‘broad/wide’. If the object is oriented in the vertical plane, the smaller dimension may be horizontal or vertical. In (166), an example where the smaller dimension is referred to as *bred* ‘broad/wide’ is given.

(166) Han stängde omsorgsfullt den *breda* dörren. (B80–81) ‘He carefully closed the wide door.’

It must be noted that the door may also be referred to as *bred* ‘broad/wide’ because of its canonical functional situation, since application of that system would lead to the use of *bred* ‘broad/wide’ for the same dimension. On the whole, there are very few instances in the corpus where the two different systems would mean that *bred* ‘broad’ would refer to separate dimensions, as mentioned in section 6.4.3.

An example of an object viewed as a two-dimensional area oriented in the vertical plane where *bred* ‘broad/wide’ refers to the smaller dimension which is also along the vertical axis would be a phrase like (167).

(167) Gardinerna har *breda* volanger nertill. (constructed) ‘The curtains have wide flounces at the bottom.’

The adjectives *hög* ‘high’ and *lång* ‘long’ can also be used to refer to the dimensions of vertical two-dimensional areas (cf. Lang 1989:273, 287, 349 regarding German *hoch* ‘high’ and *lang* ‘long’), and it seems as if this is the case if the non-vertical dimension is considerably bigger than the vertical one.

When a two-dimensional area is oriented in the horizontal plane *bred* ‘broad/wide’ refers to its smaller dimension:

- (168) *Gatan* var mycket lång och *bred* och livligt trafikerad, men hon var till sist inte medveten om vare sig skyltfönster eller människor, bara husnummer. (B76–77) ‘The street was very long and wide and with heavy traffic, but in the end she was aware of neither shop windows nor people, only house numbers.’

Again, it must be noted that the functional system would indicate the very same dimension as *bred* ‘broad/wide’, thus there is no conflict here.

For three-dimensional objects, the smallest horizontal dimension will be referred to as *bred* ‘broad/wide’:

- (169) Där stod den, *buren*, för vars skull de hade kommit. Den såg ut som de burar med vilda djur, som man förr kunde få gå och titta på i pausen på en cirkusföreställning. Den var ungefär tre meter lång och två meter *bred* men bara halvannan meter hög. (B76–77) ‘There it was, the cage, the reason why they had come. It looked like those cages with wild animals that you used to be able to go and look at in the interval at the circus. It was about three metres long and two metres wide but only half a metre or so high.’

For an unoriented three-dimensional object, like a board, the dimension referred to as *bred* ‘broad/wide’ will be the smaller horizontal dimension in some mental conception/image of the board, see Figure 15. The dimension *z* in Figure 15 would be referred to as *bred* ‘broad/wide’. The position of the board in Figure 15 is a somewhat prototypical position (resting on surface *a*), rather than balancing it on its smallest surface (surface *c*), for example. The reason that this is a prototypical position is, I believe, because the biggest surface is supporting the board. It lies steadily. It is also a position that the board is likely to adopt if it is dropped on the ground or if it lies in some other position and the ground moves (like on a boat) or when floating. Previously I had contemplated the idea of adding another sense to *bred* ‘broad/wide’, namely ‘the dimension is the second greatest dimension’, which would be true when objects are not related to orientation (see Lyons 1977 and Lang 2001 on WIDE). It does not seem necessary, however, to ascribe such status to the quality of second greatest dimension, since the dimension referred to as *bred* ‘broad/wide’ will necessarily be the second greatest dimension because objects that are described without reference to orientation or to any canonical position are mentally pictured as resting on their largest surface. If one thinks of a brick or an unlabelled box, one probably pictures them resting on their largest surface.

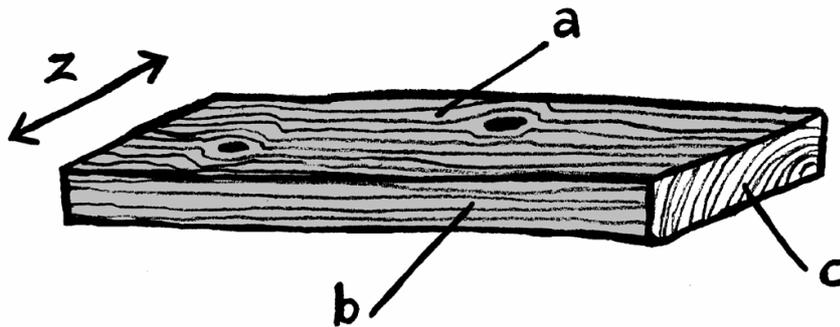


Figure 15. A board

Thus, the dimension referred to as *bred* ‘broad/wide’ will be the smaller dimension for two-dimensional objects and the smaller horizontal dimension for three-dimensional objects.

In order to generalise the analysis further, a conjecture as to which plane will be selected for all objects can be proposed. Then, *bred* ‘broad/wide’ could possibly refer to the dimension that is the smaller dimension of the relevant plane. A relevant plane is (if applicable) a functionally important plane (see Chapter 5 for discussion on the related concept of functional tops). For a couch, this will be the surface on which one sits. For a bed the surface on which one lies. For a cuboid-shaped pillar it will be the area that determines how much support the pillar can provide for a given mass. For a building it will be the surface area that determines the floor space on each storey.

For objects in which each plane is as functional as the other, the Gestalt of the object will determine the plane that is considered. It will be the biggest of the three planes. For a board, see Figure 15, there are three planes, labelled *a*, *b* and *c* and *a*, the biggest, will be regarded the relevant plane. Therefore *z* will be the dimension referred to by *bred* ‘broad/wide’.

The idea of relevant plane has the advantage of not distinguishing between two and three-dimensional objects. Moreover, it is not necessary to decide in what plane (horizontal or vertical) the dimension referred to as *bred* ‘broad/wide’ will be found, since this is encompassed by the idea of the relevant plane. However, the concept of relevant plane would require further examination and development, which it cannot be given in the framework of this study.

#### 6.4.6 What objects are not described as *bred* ‘broad/wide’?

Objects with shapes that make it difficult to judge what dimension is the smaller in the horizontal plane (or, for two-dimensional areas, the smaller

dimension) cannot be described as *bred* ‘broad/wide’ according to the proportion-system. The reason is that for these object types it is not possible to judge what dimension is the smaller one (either overall for two-dimensional areas or in the horizontal plane for three-dimensional objects). These shapes are spheres, cubes, erect cylinders and cuboids with a square base. However, horizontal cylinders, such as sausages, also seem reluctant to combine with *bred* ‘broad/wide’. One reason could be that there is no functional need to distinguish between the two dimensions that form the cross-section of the cylinder. Another possible reason is the unwillingness to idealise a cylinder to a plane. Not only is it cognitively difficult, but a cylinder also fails to serve the same function as a plane does.

The descriptions of such object types in (170)–(173) result in rather odd phrases.

(170) ?Hur *bred* är *badbollen*? ‘How broad/wide is the beach ball?’

(171) ?Hur *bred* är *flaggstången*? ‘How broad/wide is the flagpole?’

(172) ?Hur *bred* är *tärningen*? ‘How broad/wide is the dice?’

(173) ?Hur *bred* är *korven*? ‘How broad/wide is the sausage?’

Even if these objects cannot be described as *bred* ‘broad/wide’ according to the proportion-system, theoretically the functional system should still make it possible. It should not matter what shape the object has. Even so nouns referring to spheres still combine reluctantly with *bred* ‘broad/wide’, see (174).<sup>30</sup>

(174) ?Vi stod framför *Globen* och vi såg att den var *jättebred*. ‘We stood in front of *Globen* and saw that it was extremely wide.’

It seems as if the concept of a plane is important for *bred* ‘broad/wide’. A horizontal plane that forms a path has a central status in the network model. It is the basis from which the proportion-system that determines the smaller dimension in the horizontal plane, is derived. A sphere is not compatible with this concept of a plane, it has no surface extending in the horizontal or vertical plane. Nouns corresponding to objects with clearly defined horizontal planes are easier to combine with *bred* ‘broad/wide’.

In Figure 16, one cube-shaped sitting device (*pouffe*) and one cylinder-shaped are illustrated. Both can be referred to as *bred* ‘broad/wide’, at least in a context as shown in (175).

(175) Jo *den här* är *bred* nog att sitta på. (constructed) ‘Yes, this is wide enough to sit on.’

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<sup>30</sup> *Globen* is a huge, spherical building in Stockholm, used for concerts, hockey games and similar events.

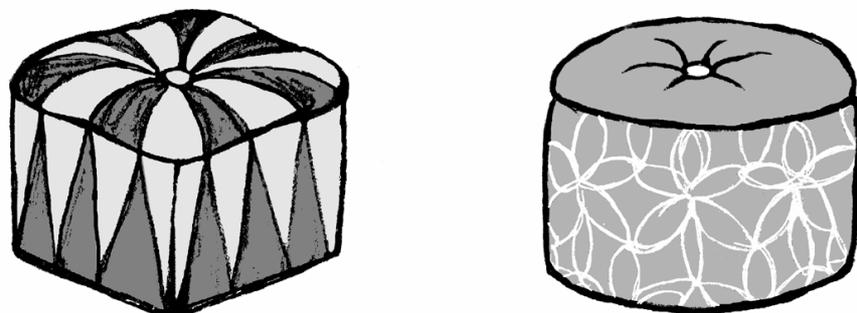


Figure 16. Two pouffes

One possible situation could be when determining whether the cushion will be comfortable enough to provide a guest with somewhere to sit, or the like.

It may be because the horizontal plane can be sat upon or “inhabited” in some other way by a human being that the object may be referred to as *bred* ‘broad/wide’. This can be related to the way in which a human being walks along a path, inhabits the path as it were. A spherical object cannot be sat upon or walked upon in the same way.

It can be added that cylinders, whether erect or not, form a borderline area in the ways they are referred to. It seems as if it is preferable not to refer to cylinders as *bred* ‘broad/wide’, although it does happen, as in (175), and as in a few examples from the corpus which will be discussed below. Open cylinders (such as pipes) are rather referred to as *vid* ‘broad’, see Chapter 7, while massive ones are referred to as *tjock* ‘thick’, see Chapter 8. However, as was reported by Galeote et al. (1999) regarding Spanish, the use of the adjectives for cylinders may form a more confused picture.

Below I have collected usages from the corpus which, at first glance, seem to deviate from the analysis presented. In three cases, the objects referred to as *bred* ‘broad/wide’ have the shape of cylinders. On closer examination, however, each of the examples can be explained by taking the context into consideration.

- (176) Särskilt ett stort körsbärsträd med *breda*, blanka, mörkröda *grenar*. (B80–81) ‘Particularly a big cherry tree with broad, smooth, dark-red branches.’

Branches are probably perceived as cylinders and objects with that shape are usually incompatible with *bred* ‘broad/wide’. In (176), though, the context is that the tree is good to climb, so that the branches will be

regarded as a kind of path to climb on or sit on. The width of the branches is more important than how thick they are.

The next example involves another cylinder:

- (177) Han stod bakom Hester, höjde sig på tå, blåste upp bringan och försökte likna Hester, när någon borta vid dansbanan plötsligt började spola ut över festplatsen med en *bred brandslang*. (B76–77) ‘He stood behind Hester, on tip-toe, puffed out his chest and tried to look like Hester, when someone over at the dance pavilion suddenly began to spray water over the party with a broad fire hose.’

The fire-hose of example (177) may be regarded as a borderline case in which *tjock* ‘thick’ could just as well have been used to refer to the object. If the object is seen as a path for the water, however, its two-dimensionality is stressed and *bred* ‘broad/wide’ is appropriate. As mentioned, prominence is given to this issue in Galeote et al. (1999) where it is pointed out that hollow tubes may be described either as THICK or FAT (the preferred choice of Galeote’s informants) or as WIDE (which was considered the correct choice).

The last example where *bred* ‘broad/wide’ refers to an object that forms a cylinder can be seen in (178).

- (178) Framför klyftan, nära det fallandet vattnet och halvt dold av sprutande skum, överbryggade en *trädstam* som inte var *bredare* än en vuxen mans lår ravin- en från kant till kant. (B76–77) ‘In front of the ravine, near the tumbling water and half hidden by gushing foam, a tree trunk no wider than a man’s thigh bridged the ravine from one side to the other.’

The reference to the log as *bred* ‘broad/wide’ is unexpected, until the ensuing sentence given in (179) is read.

- (179) Översidan var grovt avplanad; och över denna stock, utan räcke av något slag, skred nu de båda kvinnorna lika oberört som de hade vandrat fram på stranden. (B76–77) ‘The upper side was roughly planed; and across this log, without a railing of any kind, the two women now strolled as unconcerned as if they were walking along the beach.’

It is clear that the log is used as a bridge, or a path, over the crevasse. The log even has a planed surface, which transforms it from a three-dimensional cylinder to a two-dimensional area which may very well be referred to as *bred* ‘broad/wide’.

Objects that have the shape of a circle are not referred to as *bred* ‘broad/wide’ in either the functional situation system or in the proportion system. Objects that are square are not called *bred* ‘broad/wide’ in the proportion-system, although this is possible in the functional system, for example the square-shaped rug in Figure 17.

In the corpus, there is one example of a two-dimensional circle-shaped surface being called *bred* ‘broad/wide’:



Figure 17. A square-shaped rug in a functional situation

(180) Parasollen lade en *bred*, rund *skugga* över oss. (B76–77) ‘The parasol gave us broad, round shade.’

The use is interesting. I suggest that the persons, referred to as *oss* ‘us’, benefit from the shadow from a position where the shadow extends in the left-right dimension. Since the shadow extends over the persons, the whole shadow is probably not visible at once in the vision field, thus weakening the impression of its roundness. The example also raises the question of the distinction between the narrator and protagonist (even if the text is told in first-person), so that a shape may be described as *rund* ‘round’ although not so perceived by a protagonist at the time. However, this discussion is outside the scope of my study and I will pursue it no further.

An object like the gold chain in Figure 18 must be idealised to a path in order to describe its width (Vandeloise 1988). No attention has to be paid to the fact that the chain forms an elliptical shape when worn around the neck (picture a). The object is described as if it were straight (picture b).

The dimension referred to as *bred* ‘broad/wide’ is thus not through the object. This dimension would rather be referred to as *vid* ‘broad’, see Chapter 7 on *vid* ‘broad’. Other objects whose shape is idealised are *ram* ‘frame’, *däck* ‘tire’ *vigselring* ‘wedding ring’ and *cirkel* ‘fairy ring’. They are all round objects (a frame can be rectangular too), but they have some kind of hole/space in the middle, so they are actually paths. The dimension measured is the width of the path, and so the object gets idealised (straightened out) and is described as a cuboid:

(181) Hon såg allvarlig ut, hennes röst var djupt mörkt allvarlig, hennes ena hand tummade på den andra handens *breda guldringar* med stort allvar, vred dem

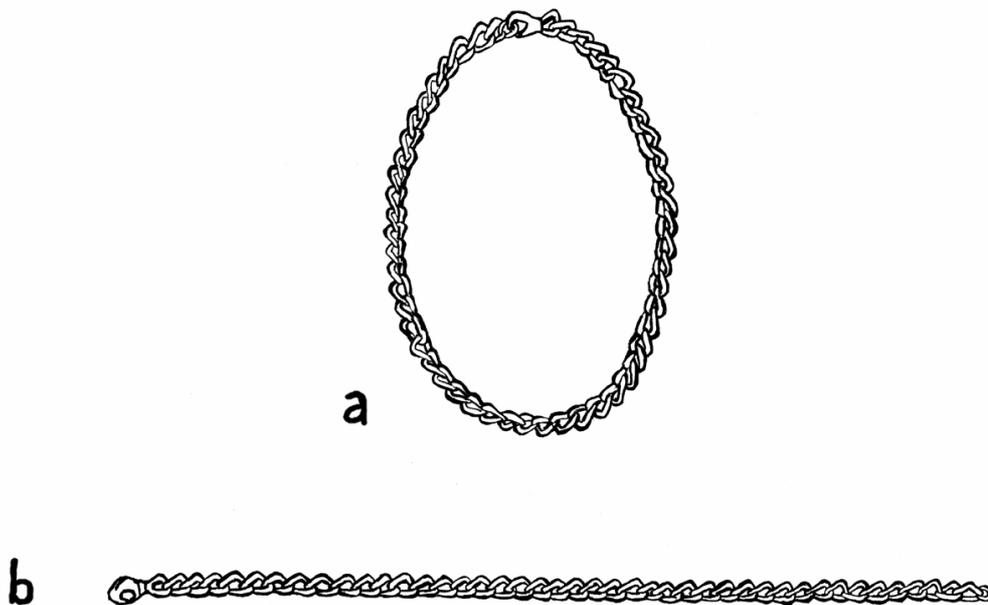


Figure 18. A gold chain

runt, runt, gned dem, nu blåste hon på guldringarna och gned dem mot blusen – men på samma gång började hennes stora mörka ögon att blänka, så det glimtade, och det var som ett ljus i mungiporna som spred sig ut över hakan och upp på kinderna, som ett smil. (B76–77) ‘She looked serious, her voice was deadly serious and dark, she turned the broad gold rings on one of her hands with great seriousness, round and round, rubbed them, then she blew on the rings and rubbed them against her blouse – but at the same time her large dark eyes began to shine so that there was a flash, and it was like a light in the corners of her mouth that spread out across her chin and up to her cheeks, like a smile.’

(182) En *bred klockkedja* av guld spänner över hans kraftiga bringa, ögonen simmiga, han svajar till. (B80–81) ‘A broad golden watch chain stretched across his powerful chest, his eyes haze over, he totters.’

#### 6.4.7 The relationship of the two systems

According to Vandeloise (1988), no highest schema may be found for *wide*. Other related research agrees that the semantics of WIDE must take orientation/function/vantage point/perspective into account, on the one hand, and proportions on the other (see among others Lang 2001).

In my corpus, there are very few instances where the two systems for *bred* ‘broad/wide’, i.e. the functional and the proportion-system, conflict. There is one example of a desk and another example of a couch, see (183)–(184).

- (183) Gwenda såg tvärs över det *breda mahognyskrivbordet* på mr Walter Fane.  
(B76–77) ‘Gwenda looked right across the broad mahogany desk at Mr Walter Fane.’
- (184) De två *breda*, mjuka *sofforna* mitt emot varann var beigefärgade. (B80–81)  
‘The two wide, soft couches opposite each other were beige.’

Note that the adverbial *mitt emot varandra* ‘opposite to each other’ in example (184) rather indicates that *bred* ‘broad/wide’ refers to a dimension defined by the functional system (thus, the left-right dimension for a user). For all other objects, whose corresponding nouns are combined with *bred* ‘broad/wide’, there is no conflict, or at least, none that can be traced from the example.

Some objects, especially in a familiar home setting or office setting, refuse to be described according to the proportion-system (i.e. by *lång* ‘long’ and *bred* ‘broad/wide’). Instead, a description, which takes the canonical functional situation into account, is much preferred. The maximal dimension of a keyboard is not described as *lång* ‘long’; *?ett långt tangentbord* ‘a long keyboard’ sounds odd. The extent of the dimension is expressed rather by *ett brett tangentbord* ‘a wide keyboard’. Likewise, not *lång* ‘long’, but *bred* ‘wide’ is used to describe the maximal dimension of a computer screen; *?en lång dataskärm* ‘a long computer screen’ is odd while *en bred dataskärm* ‘a wide computer screen’ is well-formed. If such objects were to be described as *lång* ‘long’ and *bred* ‘broad/wide’, they would need to extend very greatly (perhaps some meters) to the sides, in order to make the utterance acceptable. My suggestion is that the canonical functional situation (sitting in front of the screen, typing on the keyboard), with the objects so conveniently situated in front of the user exerts so strong an influence that it blocks any unoriented interpretation that fails to take the functional situation into consideration.

Lang (1989) describes a seed drill as *Die Drillmaschine ist breiter als lang* ‘The seed drill is wider than (it is) long’ (Lang 1989:349). Lang explains the exception by pointing out that the seed drill is an untypical vehicle, whereas typical vehicles have their maximal extension in the front-rear axis. Using *breit* ‘broad/wide’ to describe the maximal extension of the seed drill could be seen as a preference to describe the object according to its functional situation rather than its proportions (which would probably be possible, too). See Chapter 11, section 11.4.3.3, for a further discussion of the examples, in relation to *lång* ‘long’.

It has already been pointed out in section 6.4.2, that instances of *bred* ‘broad/wide’ combining with nouns referring to two-dimensional areas, such as roads, drive-ways, and rivers, constitute a major group in the corpus. The canonical functional situation involves following the path. *Bred* ‘broad/wide’ will refer to the left-right dimension, also a dimension defining how much space there is on either side of the human body. *Bred* ‘broad/wide’ referring to ‘enough space for the human body (to pass, to be)

in the left-right dimension' can be seen in several of the corpus instances, and could be a candidate for a central case for the adjective, from which the proportion-system is abstracted.

## 6.5 Summary of *bred* 'broad/wide'

The dimensional adjective *bred* 'broad/wide' in its spatial, non-metaphorical sense is considered a complex category which can be described by a network model. The central case is *bred* 'broad/wide' describing a left-right dimension. The direction of *bred* 'broad/wide' extends to the sides. The whole dimension of the object should be visible within the vision field of the user. The object described as *bred* 'broad/wide' is located on, or perceived as located on, the ground. Prototypical uses are *bred väg* 'wide road', where the object functions as a path. The use in which *bred* 'broad/wide' refers to the smaller dimension on the horizontal plane is viewed as another case of the complex category.

The conflict between the functional system and the proportion-system has been examined, although evidence from the corpus suggests that this conflict is not as prominent as indicated in related research (see Lang 1989 among others).

## 7 The semantics of *vid* ‘broad’

The purpose of this chapter is to give a thorough and detailed account of the meaning of the dimensional adjective *vid* ‘broad’.<sup>31</sup>

I do not study what magnitude of any specific extension is required if an object is to be described as *vid* ‘broad’.

Related research on WIDE is found in Chapter 6 on *bred* ‘broad/wide’.

The adjective is regarded polysemous, corresponding to a complex category which can be described as a network model. I associate the semantics of *vid* ‘broad’ quite strongly to the function of passage. This is evident in the central case. Three other cases are included in the network model: one associated with surface, another associated with movement and the third one associated with three-dimensional objects. It is suggested that *vid* ‘broad’ involves direction, and supporting linguistic evidence is presented.

### 7.1 *Vid* ‘broad’ in the dictionaries

Swedish dictionaries show little consensus about the spatial meaning of *vid* ‘broad’. The different dictionaries vary in their description of the adjective.

The most thorough and detailed of the Swedish dictionaries, SAOB, has not yet published its article on *vid* ‘broad’. According to *Illustrerad svensk ordbok*, *vid* ‘broad’ means ‘which has a certain or relative width’. The first example given concerns a blouse: *blusen är för vid* ‘the blouse is too wide’. *Nusvensk ordbok* separates three different senses. The first one concerns openings and pieces of clothing. Here, a jacket is used as an example *kavajen är för vid över ryggen* ‘the jacket is too wide across the back’. The second sense concerns movements and lines, while the third is about surfaces. NEO suggests that *vid* ‘broad’ means extending far sideways, in relation to some direction of vision or of movement or some middle. The first example concerns a skirt: *kjolen var lite för vid i midjan* ‘the skirt was a little too wide in the waist’. Further, the adjective profiles a (relative) freedom from restrictions. There is also a “neutral” sense, as in *hur vid är kjolen* ‘how wide is the skirt’. Finally, *Bonniers svenska ordbok* defines *vid* ‘broad’ as *bred* ‘broad/wide’ and as antonymous with *trång* ‘narrow’, or as *utbredd* ‘spread’. The first example is *en vid port* ‘a wide gate’.

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<sup>31</sup> In the translation of Swedish *vid* I have neglected the suggestion by *Norstedts stora svensk-engelska ordbok* (which gives English *wide* as the first term). The reason is that the English lexical item *broad* better seems to capture the meaning in the examples from the corpus.

## 7.2 Data

As was the case in studying *hög* ‘high/tall’, *låg* ‘low’, *bred* ‘broad/wide’, *smal* ‘narrow/thin’, *tunn* ‘thin’, *trång* ‘narrow’, *djup* ‘deep’, *grund* ‘shallow’, *lång* ‘long’, and *kort* ‘short’, the data have been gathered from two corpora (B76–77) and (B80–81) from Språkbanken (the Bank of Swedish) at Gothenburg University. For the above mentioned adjectives, I have omitted all uses where the adjective combines with a noun referring to clothes and shoes, as mentioned in Chapter 4 (Data and methodology). However, for *vid* ‘broad’, reference to clothes seems to be a central use. The adjective combines more frequently with nouns referring to clothes than with nouns referring to the body. For other adjectives, the opposite is true. In section 7.3 it is claimed that a central function for objects referred to as *vid* ‘broad’ is that of passage. There seems to be no crucial difference between objects such as door-openings, gaps and a pair of trousers when it comes to the body or parts of the body passing through (in case of the trousers, the expression is rather slipping into) the object. As opposed to the use of other dimensional adjectives, *vid* ‘broad’ when describing clothes does not seem to be used in analogy to how the body is described (the body is seldom described as *vid* ‘broad’). Therefore, instances where *vid* ‘broad’ combines with a noun referring to clothes have been incorporated.

Further, the adjective *vid* ‘broad’ has a homonym in Swedish, the preposition *vid* ‘at’, as mentioned in Chapter 4 (Data and methodology). The search engine cannot distinguish these homonyms in the corpus so that the total of hits for *vid* amounts to 18,501, which may be compared to 301 hits for *bred* ‘broad/wide’ in the same form (positive). I have included not only the positive form but other inflections of *bred* ‘broad/wide’, *smal* ‘narrow/thin’, *hög* ‘high/tall’, *låg* ‘low’, *tjock* ‘thick’, *tunn* ‘thin’, *trång* ‘narrow’, *djup* ‘deep’, *grund* ‘shallow’, *lång* ‘long’, and *kort* ‘short’, in my corpus: for instance *bred* ‘broad/wide’, *breda*, *bredare*, *bredast*, and *brett*. The corresponding inflected forms for *vid* ‘broad’, are *vida*, *vidare*, *vidast*, and *vitt*. All instances of the two forms *vida* ‘wide’ and *vidast* ‘widest’ and *vitt* ‘wide’ are part of the corpus, while *vid* ‘broad’ has been restricted to instances where it occurs in a phrase together with the indefinite article *en* ‘a/an’, as in *en vid båge* ‘a wide arc’. *Vidare* ‘wider’, which has the homonym *vidare* ‘further’ (the latter rendering 2642 hits), has been omitted completely.

*Vid* ‘broad’ does not combine very well with measure phrases, see section 7.4.1. This renders the test used to separate spatial uses of the dimensional adjective from non-spatial uses of the dimensional adjective inappropriate, see section 4.1.1. A few comments on the collection of examples from the corpus are appropriate.

Uses in which *vid* ‘broad’ combines with a noun that refers to an abstract object or to an object of the third-order-entity (Lyons 1977), have been regarded as non-spatial. Such uses are *vida gemenskapen* ‘the wide

community’, *stora, vida och djupa sanningen* ‘the great, wide and deep truth’, and *i vidaste mening* ‘in its widest sense’ have been excluded from the corpus. Further, spatial uses embedded in a metaphorical context have been excluded, such as example (185).

- (185) Artur Lundkvists första essäsamling (1932) är genomblåst av starka framtidsvindar. Den öppnar ljusa perspektiv och *vida horisonter*. (B80–81)  
 ‘Artur Lundkvist’s first collection of essays (1932) is pervaded by strong futuristic winds. It opens lustrous perspectives and wide horizons.’

Finally, extended uses involving the attribution of a concrete object to one that is abstract, such as *medeltidskyrkans vida famn* ‘the wide arms of the medieval church’ (where the church is seen as an abstract institution rather than a building) have been excluded.

In this way it has been possible to distinguish between spatial, non-metaphorical uses and non-spatial, metaphorical uses without resorting to the measure phrase test.

### 7.3 Claims concerning *vid* ‘broad’

The semantics of *vid* ‘broad’ in its spatial, non-metaphorical sense can be described as a complex category. One case is the central case, to which three other cases are related. One of the non-central cases is considered more important than the other non-central ones, and will therefore be included in the description below. *Vid* ‘broad’:

- Refers to two dimensions of a passage, through which something may pass in a direction perpendicular to the two dimensions (central case). The dimensions exceed a norm.
- Refers to inner measurements.
- Alternatively refers to a surface, along which the human gaze may pass unrestrictedly (non-central case). The dimensions exceed a norm.
- Describes two dimensions starting from a shared central point and extending towards the boundaries of the object.
- Does not refer to a canonical vertical dimension.

The adjective preferably combines with nouns, referring to objects:

- That have equally large dimensions.
- That are perceived as surfaces (non-central case).
- Whose main dimensions are canonically extended in the horizontal plane (non-central case).

Some referent classes are so prototypical that they are comprehended as being *vid* ‘broad’ themselves. *Havet* ‘the sea/ocean’ is more or less syn-

onymous with *det vida havet* ‘the wide ocean’, although there is a stylistic difference.

## 7.4 Results and discussion on *vid* ‘broad’

In this section, I will discuss the central case of *vid* ‘broad’, which is firmly linked with passage. I will also discuss the non-central cases, which can be labelled as surface, movement and three-dimensional object. First, however, the question of whether *vid* ‘broad’ has both a marked and an unmarked sense will be addressed, as will the issue of the direction of the dimension.

### 7.4.1 Exceeding a norm

Other dimensional adjectives, such as *hög* ‘high/tall’ and *bred* ‘broad/wide’, have both an unmarked sense and a marked sense which indicates great extension in relation to a certain norm. For *vid* ‘broad/wide’ it seems that when used about surfaces there is only a marked sense. A question such as *hur vid är utsikten?* ‘how wide is the view?’ would indicate that the object (*utsikt* ‘view’) surpasses a norm, and the focus is rather on to what extent so that suitable responses would be *vid* ‘broad’ or *jättevid* ‘very wide’. For passages this is uncertain. A claim such as *min kjol är lika vid som din* ‘my skirt is as wide as yours’ probably implies that both skirts surpass a certain norm. *Vid* ‘broad/wide’ would then be an absolute adjective rather than a relative one.

The noun *vidd* ‘width’ cannot easily combine with a measurement expressed in numbers (*?vidden är 2 meter* ‘the width is 2 metres’), nor does it combine easily with a measure phrase, although there are two such instances in the corpus, see (186)–(187).

(186) Akyn tar en av knipporna rabarber och bryter av de stora, en halv aln *vida bladen*. (B80–81) ‘Akyn takes one of the bunches of rhubarb and snaps off the big two-foot wide leaves.’

(187) Prestaverna Marianne De Geer och Margaretha von Rosen hade 20 meter *vida tyllkjolar* i hästgardesblått. (B80–81) ‘The staff-bearers Marianne De Geer and Margaretha von Rosen wore 20 metre wide tulle skirts in Horse Guards blue.’

There is further discussion of the first example in section 7.4.5.

### 7.4.2 The direction of the dimensions

As mentioned in section 6.2, Athanasiadou (2001) describes English *broad* as expressing how much something is spread out, alternatively the area that

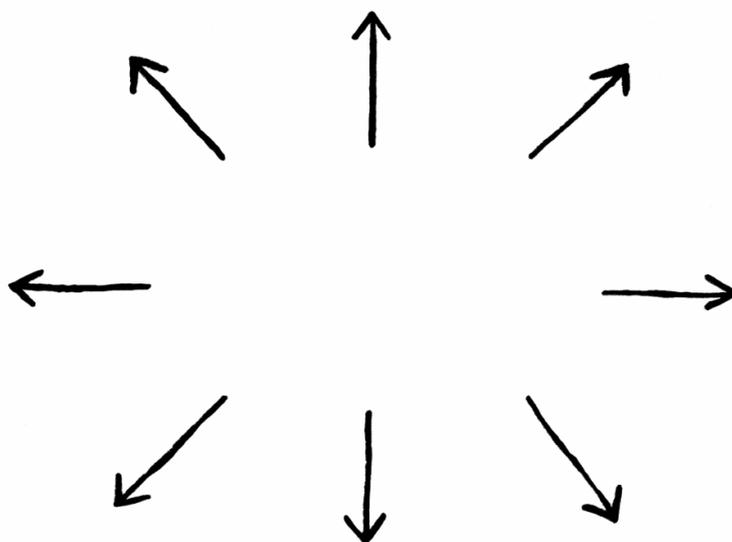


Figure 19. *Broad* – Range of openness of an area starting from the middle and opening out. After Athanasiadou (2001:5)

it covers. She illustrates this with two sketches, of which one is reproduced as Figure 19. (The first sketch can be found on page 125.)

For Swedish, Figure 19 seems to describe the direction of the two dimensions concerning *vid* ‘broad’, while the second of Athanasiadou’s figures, see Figure 10, page 125, seems to evoke the direction of the dimension referred to by *bred* ‘broad/wide’. The direction of *vid* ‘broad’ does not seem to go from one border of the object (such as a field) to the other, which the ungrammaticality of phrases as *\*vitt ut* ‘wide out’ and *\*vitt in* ‘wide in’ supports, but the area that starts from the middle and then opens out, see Figure 19. Adverbial uses of *vid* ‘broad’ include phrases like *vitt uppspärрад* ‘wide open’, *vitt utbredd* ‘widespread’, *vitt utgrenad* ‘far-reaching’ and *vitt utspärрад* ‘stretched wide’, thus confirming Figure 19. An example from B76–77 is shown in (188).

- (188) Inget av detta registrerades när det hela utspelades och nu är det alltsammans försvunnet, frön som har efterträts av den massiva stammen upptill och de *vitt utgrenade* rötterna nertill. (B76–77) ‘None of this was recorded when it took place and now everything has disappeared, seeds that have been succeeded by the solid trunk above and the widely extended roots below.’

Note that this instance includes the result of factive motion. In example (188), the roots have grown in an outward direction.

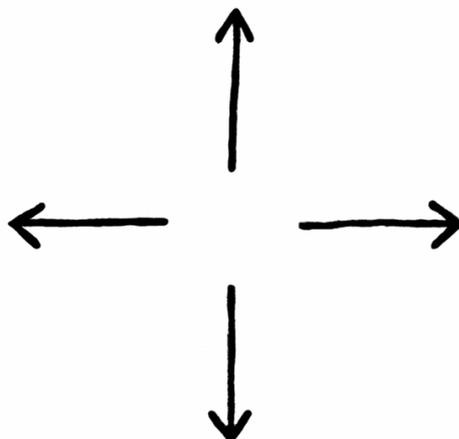


Figure 20. The directions of *vid* ‘broad’.

In Figure 20, I have illustrated the direction of the two dimensions of *vid* ‘broad’. It is a modification of Figure 19, omitting the arrows in the diagonal directions.

### 7.4.3 The passage (central case)

As indicated in section 6.2, Lafrenz (1984) considers that German *weit* ‘wide’ often has a negative aspect, referring to a cavity. Lang (1989) as well as Weydt and Schlieben-Lange (1998) are of the opinion that *weit* ‘wide’ refers to the inner measurements of objects. Bierwisch (1967) proposes that *weit* ‘wide’ refers to a distance between limits where this space is foregrounded. Rakhilina (2000) writes that Russian *širokij* ‘wide’ describes the cross-section of a container as seen from the inside. Athanasiadou (2001) suggests that English *wide* refers among other things to objects being fully open and extended to the maximum. Nusvensk ordbok describes *vid* ‘broad’ as having three senses, of which the first involves openings and articles of clothing, see section 7.1.

Where Swedish *vid* ‘broad’ is concerned the negative aspect (Lafrenz 1984), the reference to inner measurement (Lang 1989, Weydt and Schlieben-Lange 1998, Rakhilina 2000), the reference to a space between limits (Bierwisch 1967) and the reference to fully open objects (Athanasiadou 2001) seem valid. These qualities are all qualities that apply well to passages.

In the corpus, instances where *vid* ‘broad’ combines with a noun, referring to an object that allows passage, amount to 64 instances (out of 158 altogether). This is the largest group in the corpus. In the elicitation text, 24

out of 33 nouns involved passage, such as *kjol* ‘skirt’, *byxor* ‘trousers’ and *ingång* ‘entrance’. As was mentioned in section 7.1, there is little consensus in the dictionary descriptions. However, when analysing the nouns given in the examples, it can be noted that all nouns occurring in the first examples refer to objects that function as passages (*kavaj* ‘jacket’, *blus* ‘blouse’, *kjol* ‘skirt’, and *port* ‘gate’).

The majority of nouns referring to passages in the elicitation test together with the size of a corresponding group of nouns referring to passages in the corpus and, finally, the nouns referring to passages given as the first examples in the dictionaries as a whole justify ascribing central role in the network model to the sense involving passages. Two examples from the corpus are provided in (189)–(190).

- (189) Hon viker ner skjortor och handdukar i den *vida korgen*, sätter den mot höften och vagnar ner mot torpet. (B80–81) ‘She folds shirts and towels down into the wide basket, places it against her hip and waddles down towards the cottage.’
- (190) Längst ner på sidan var klistrat ett bokmärke, en gammaldags ängel med vemodigt ansiktsuttryck och långa vita händer stickande fram ur de *vida gröna ärmarna*. (B80–81) ‘A bookmark was glued at the bottom of the page, an old-fashioned angel with a melancholy expression and long white hands sticking out from the wide green sleeves.’

The upper circumference of the basket may be considered a passage, through which the shirts and towels are passed.

In (189), factive motion is present, expressed by the verb-particle construction *viker ner* ‘folds down’. Factive and fictive motion are terms introduced by Talmy (1996), and they are explained in Chapter 5 on *hög* ‘high’ section 5.4.3. In (190), fictive motion is expressed by the verb phrase *stickande fram* ‘sticking out’.

In the examples (189)–(190), factive or fictive motion is present. In other instances this factive motion has taken place to result in a state. An example is shown in (191).

- (191) Brudgummen Lasse var iförd nybyggd, axelbred blazer av mörk tweed och *vida oxfordbags* av grå flanell. (B80–81) ‘The bridegroom Lasse was dressed in a new, broad-shouldered blazer in dark tweed and wide grey flannel Oxford bags.’

The example (191) contains the supine form *iförd* ‘dressed in’, from *iföra* ‘to dress in’, which describes an action of putting something (the body, in this case), into something (the bags, in this case).

For most of the instances, the act of putting something on has already happened, as in (191), but unlike that example this is not commented on, thus no (trace of) factive motion is expressed linguistically:

- (192) Pastorns *vida byxor* fladdrade kring hans ben när han skrapade av sina skor på mattan utanför ytterdörren. (B76–77) ‘The reverend’s wide trousers

fluttered around his legs as he scraped his shoes on the mat outside the front door.’

I have counted examples like (192) as passages, too.

#### 7.4.3.1 The number of dimensions involved in the passage (central case)

As mentioned in section 7.2, Bierwisch (1967), Durrell (1988), Lang (1989), and Weydt and Schlieben-Lange (1998) all note that German *weit* ‘wide’ may describe more than one dimension, often two amalgamated into one.

A square-shaped opening, such as a doorframe, has two clearly separated dimensions. But does a circular opening, such as the opening of a pipe, have one or two dimensions? In Lang (1989) the adjectives *dick* ‘thick’ and *weit* ‘wide’ refer to an integrated dimensional extension. This means that they describe two (integrated) dimensions.

For an object passing through a passage, such as the laundry passing through the opening of the basket in example (189) above, the size of two dimensions is relevant. If only one dimension is large while the other is small (think of the opening of a European mail-box), it would be difficult to get the laundry inside. Whether the opening of the basket is circular or square-shaped does not really matter.

For passages with circular openings it is possible to speak of two dimensions integrated into one, but I prefer to allow the two dimensions to remain separate as this enables this description to encompass both square-shaped and circular passages. The solution of regarding two dimensions as amalgamated or integrated into one is only valid for circular-shaped passage opening.

Objects, which are referred to as *tjock* ‘thick’, may have a circular cross section. It has been pointed out above that Lang (1989) assumes that German *dick* ‘thick’ describes an integrated dimension, just like German *weit* ‘wide’. For Swedish, however, *vid* ‘broad’ and *tjock* ‘thick’ requires another analysis in which the two dimensions referred to by *vid* ‘broad’ are distinct while the two dimensions referred to by *tjock* ‘thick’ are integrated into one dimensional extension. This will be discussed in Chapter 8 on *tjock* ‘thick’, section 8.5.1.

The passages described so far are non-oriented passages. There are a few instances (3 altogether) that refer to passages with openings that extend in the vertical plane. I would like to suggest that *vid* ‘broad’ does not easily describe two dimensions, if one of them is vertical. One of the examples referring to a vertical orientation can be found in (193).

(193) Det var egentligen bara ett enkelt skjul, men *dörrarna* kunde öppnas *vida* mot havet, horisonten, oändligheten. (B80–81) ‘It was actually only a simple

shed, but the doors could be opened wide facing the sea, the horizon, infinity.’

In example (193), the passage is created by the act of opening the door. The passage has an upper limit, the door frame. It is interesting to note, however, that the opening of the door can only influence the horizontal dimension of the passage. The phrase *dörrarna kunde öppnas vida* ‘the doors could be opened wide’ indicates that this influence on the horizontal dimension is enough to create a passage, great enough to be referred to as *vid* ‘broad’.<sup>32</sup> Further, another passage that has its opening extending in the vertical plane, shows that the vertical dimension is not even included in the description:

- (194) Till nöds hinner hon uppfatta vilka som passerar i de *vida grindhålen* mellan häckarnas murar. (B80–81) ‘At a pinch she has time to see who is passing through the wide openings between the walls of hedge.’

The objects referred to as *grindhålen* ‘openings’ are in fact gaps and *vid* ‘broad’ does not involve the vertical dimension. Another phrase, which is lexicalised, is *på vid gavel* ‘wide open’, which describes a door which is fully open, creating a free passage through the door frame. Here, the same situation applies. The degree to which a door is open only influences the horizontal extent of space between the doorposts yet it can be enough to justify reference to it as being open *på vid gavel* ‘fully open’. In a hymn, (Svenska psalmboken, hymn 103), gates are described as *vid* ‘broad’: *Gör dina portar vida för Herrens härlighet* ‘Make wide your gates for the glory of the Lord’. It is worth mentioning that another, older hymn which contained the well-known phrase *Gören portarna höga och dörrarna vida* ‘Make the gates high and the doors wide’ has been modified to *Gör porten hög, gör dörren bred* ‘Make the gate high, make the door broad’ in a later edition (Svenska psalmboken, hymn 107). This may indicate a semantic change for *vid* ‘broad’ in shifting from describing one dimension to describing two. Moreover, in the lexicalised phrase *vitt och brett* ‘far and wide’, a plausible interpretation would be that each adjective refers to one dimension, and not that *vitt* ‘wide’ refers to two dimensions, of which one is repeated in *brett* ‘broad/wide’. Today this phrase has become rather bleached. When it was productive, the meanings of the two adjectives might have been slightly different.

As indicated in section 7.2, Durrell (1988) points out that neither German *weit* ‘wide’, nor English *broad*, is used with measure phrases. In the case of *weit* ‘wide’, Durrell attributes this phenomenon to the fact that the adjective may describe more than one dimension. Durrell thinks that *broad* refers to a subjective impression, and as such does not combine with conventional

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<sup>32</sup> Note that the doors open towards a vast surface. *Vid* ‘broad’ can be considered as approaching the sense describing surfaces.

measure units. *Broad* is not used in interrogative phrases, either. Durrell questions whether *weit* ‘wide’ and *broad* are true dimensional adjectives.

*Vid* ‘broad’ seldom combines with a measure phrase. To say that an object is *1 meter vid* ‘one meter wide’ sounds odd. Of a total of 116 examples, only two include measure phrases with *vid*, which supports the belief that *vid* ‘broad’ does not normally have a neutral meaning.

The relative lack of measure phrases with *vid* ‘broad’ indicates that it is less precise than other adjectives, as was suggested by Durrell (1988) about English *broad*. We have some idea of what objects look like when they are *vid* ‘broad’, but we do not want to use the adjective to determine this more accurately. Neither is the adjective *vid* ‘broad’ used to distinguish single dimensions from each other but *bred* ‘broad/wide’ is used instead. This can also be seen in expressions such as *på längden* ‘in length’, *på bredden* ‘in breadth/width’, *på höjden* ‘in height’, *på djupet* ‘in depth’, *?på vidden* ‘in width’.

#### 7.4.4 The surface

It is noted in section 7.2 that Lafrenz (1984) shows that German *weit* ‘wide’ can combine with nouns denoting a surface. In dealing with English *broad*, Durrell (1988), points out that the adjective refers to objects that form a surface, while Athanasiadou states that the adjective is used for measuring flat, very large surfaces. Nusvensk ordbok asserts that one sense of *vid* ‘broad’ concerns surfaces.

In the corpus, *vid* ‘broad’ combines with a noun referring to an object which is a surface, in 30 out of 158 instances. In 17 of these instances, this is a water surface, either a sea, a bay, a river, a lake, or a delta. In the elicitation test, 8 out of 33 nouns referred to surfaces. Of these 4 were nouns referring to water (*hav* ‘sea’, *sjö* ‘lake’, *å* ‘stream’, and *bukt* ‘bay’). One example from the corpus involving water can be found in (195).

(195) Inget tecken till liv syntes på den *vida*, ödsliga *fjärden*. (B80–81) ‘There was no visible sign of life on the wide, desolate bay.’

The water in (195) also has depth, which means it is three-dimensional although this is not specifically mentioned in the text. However, the preposition *på* ‘on’ makes it reasonable to interpret that the water is perceived as a surface. The majority of the examples where *vid* refers to water show similar tendencies (*på den vida Brunnsfjärden* ‘on the wide bay of Brunns’, *den vida ytan* ‘the wide surface’, *fick hela den vida fjärden att glittra* ‘made the whole wide bay glitter’ (only the surface may glitter), *den vida fjärdens blanka, speglände bricka* ‘the shiny, reflecting salver of the wide bay’, etc.). There are 3 instances (out of 17 in all) of *vid* ‘broad’ combining with a noun that refers to water and a three-dimensional interpretation rather is implied (*i stället låg en ödesmättad uppfordran gömd i det*

*vida vattnet* ‘instead a fateful exigency lay hidden in the wide expanse of water’; till en boning i *HAVET DET STORA OCH VIDA* ‘to a dwelling in THE BIG WIDE OCEAN’; genom Elbes *vida delta* ‘through the wide delta of the Elbe’) since the prepositions *i* ‘in’ and *genom* ‘through’ indicate a three-dimensional interpretation.

Apart from the surfaces of water, there are ground surfaces, such as a meadow or a plain. There are 10 such instances in the corpus. In the elicitation test, 4 of 33 instances referred to such objects (*landsbygd* ‘country-side’, *utsikt* ‘view’, *panorama* ‘panorama’ and *synfält* ‘field of vision’). One example from the corpus is shown in (196).

(196) Ute över det *vida vetefältet* svävade en brun vråk. (B76–77) ‘Out there above the wide wheat field hovered a brown buzzard.’

These surfaces are mostly open areas, where nothing blocks the view. I suggest that these areas are related to the function of passage in that the area is free from other objects and permits the gaze to roam or pass along the surface without restriction. Therefore the passage function should be understood as having been abstracted from the idea of passing through something to a more general form of openness.

So far, instances from the corpus concerning passages (64 out of 158 occurrences) and surfaces (30 out of 158 instances) have been discussed. A few other groups can be discerned among the remaining instances of *vid* ‘broad’.

First, there is one group comprising examples in which *vid* ‘broad’ combines with a noun that refers to a movement, such as *vida gester* ‘broad gestures’ and *vida svängar* ‘broad swings’. The group totals 43 (out of 158) instances. In the elicitation test, the noun *vinkel* ‘angle’, which may be related to movement (but need not be), occurred once. There is also another group containing variations of the lexicalised phrase *vida världen* ‘the wide world’. Such instances appear 8 times (out of 158) in the corpus. A third group includes nouns referring to a three-dimensional object. The number of instances is 12 (out of 158). Here, uses such as *vida*, *yppiga lövsal* ‘a wide, lush arbour’, *terebinträdens vida kronor* ‘the broad crowns of the terebinth trees’ can be found together with *vid trappa* ‘wide staircase’, *buktens vida båge* ‘the broad curve of the bay’, *vida ringar* ‘wide circles’ and *den vida himlarymden* ‘the wide heavens’. There were no such nouns in the elicitation test. Finally, one example remains that does not fit in to any of the groups. This is the example, already given in (186), including the measure phrase *de stora, en halv aln vida bladen* ‘the big two-foot wide leaves’. The three types of corpus examples (movements, *vida världen* ‘the wide world’ and three-dimensional objects) will be discussed below.

I will begin with the instances where *vid* ‘broad’ combines with a noun referring to movement. Nusvensk ordbok asserts that one sense of *vid* ‘broad’ concerns movements and lines. According to Linde-Usiekniewicz (2000), WIDTH can refer to both the surface of an object, and to the surface

defined by the object, such as *szeroki łuk* ‘a wide arc’. In my corpus, *vid* ‘broad’ combines with *cirklar* ‘circles’ (3 instances), *gester* ‘gestures’ (2 instances), *bågar* ‘curves’ (2 instances) and *lovar* ‘forays’ (1 instance). In (197), one example is given.

- (197) Några sena svalor susade med gälla pip ner över buskarna av björk och al vid stranden och svepte i *vida cirklar* in genom molnet av svävande höstmygg. (B80–81) ‘With shrill sounds some late swallows whistled down over the birch and alder bushes by the beach and swept in broad circles in through the cloud of hovering autumn mosquitoes.’

The noun *cirklar* ‘circles’ refers to an object, which defines a surface, as suggested by Linde-Usiekniewicz (2000) regarding WIDTH. The same is true for *bågar* ‘arcs’ and *lovar* ‘forays’, see (198).

- (198) Hundarna gjorde *vida lovar* in i skogen och kunde vara försvunna utom synhåll fyra fem minuter men återkom alltid som för att kontrollera att vi fortfarande gick i samma riktning. (B76–77) ‘The dogs made wide forays into the forest and could vanish from sight for four or five minutes but then always returned as if to check that we were still walking in the same direction.’

In the case of the noun *gester* ‘gestures’, it can only be combined with *vid* ‘broad’ if the gesture may be comprehended as defining a surface. An example from the corpus is given in (199).

- (199) Det brukar bli frågan om *vida gester* och våldsamma skratt, fast den här diskussionen såg mer ut som en överläggning i ett partihögkvarter om kommande taktik i debatten. (B80–81) ‘It’s usually a question of broad gestures and violent laughter, though this discussion looked more like a deliberation at some party HQ on future tactics in the debate.’

Thus, Linde-Usiekniewicz’s analysis regarding the Polish adjectives and nouns related to WIDTH seems applicable to Swedish *vid* ‘broad’, as well, with regard to the combination of *vid* ‘broad’ and nouns, referring to movements. The analysis also explains the collocations *vid båge* ‘broad curve’ as in (200), and *vid sväng* ‘broad swing’ as in (201) and *vida ringar* ‘wide circles’ as in (202).

- (200) Jag ser alltsammans för mig nu – buktens *vida båge*, de glittrande sandstränderna, den överflödande grönskan, oändlig och omväxlande, havet blått som ett drömhav, massan av uppmärksamma ansikten, de bjärta färgernas glans – vattnet som speglade allt, strandens kurva, piren, de otympliga stillaliggande fartygen med sina höga akterstävar, och tre båtar med trötta män från Västern som sov omedvetna om landet och folket och solskenets våldsamt. (B76–77) ‘I see it all before me now – the broad curve of the bay, the glittering sandy beaches, the verdant vegetation, infinite and varied, the sea as blue as in your dreams, the mass of attentive faces, the effulgence of gaudy colours – the water that reflected everything, the curve of the beach, the pier, the ungainly ships lying still with their tall sternposts, and three

boats with tired Western men asleep, unaware of the country and the people and the intensity of the sun.’

(201) Alla tre gick bort till den andra buffeln, som med huvudet fram över gräset och hornen i *vida svängar* bildade en svart kulle på slätten. (B76–77) ‘All three went over to the other buffalo, who with his head bent over the grass and with broad swings with his horns formed a black mound on the plain.’

(202) Kring henne spredos *vida ringar* i det spegelblanka vattnet. (B80–81) ‘Around her wide circles spread out in the glassy water.’

The arc of example (200), the bend of example (201) and the circles of example (202) define a surface (partially or totally). The same is true for an angle (*vinkel*) which was among the nouns from the elicitation test.

If a car is referred to as making *vida svängar* ‘wide bends/turns’, this will be taken to happen on a relatively empty surface rather than, say, in a forest or a crowded area where there are many houses, people, monuments, trees, etc. The moving object then not only defines space, but also defines open space, through which the human gaze may pass easily. As such, objects that enclose surfaces constitute an intermediate step between passages and surfaces. This sense of *vid* ‘broad’ forms another non-central case in the network model describing the complex category. It has relations to both the central case of passage and the non-central case of surface.

Thus, *vid* ‘broad’ may refer to a surface, such as *vid fjärd* ‘wide bay’, or to an object defining a surface, such as *vid båge* ‘wide arc’, which is similar to the usage described by Linde-Usiekiewicz (2000) for Polish WIDTH.

Now, I will move on to the lexicalised phrase *vida världen* ‘the wide world’. The world apparently has three dimensions. When using the expression *vida världen* ‘wide world’, movement (such as journeys) along the two-dimensional surface of the earth-globe is stressed, see (203)–(204).

(203) Alla människor som varit ute i *vida världen* måste någon gång ha ställt sig frågan: var är jag? (B80–81) ‘Everyone who’s been out in the wide world must at some stage have asked themselves the question: where am I?’

(204) Så jag ger mig iväg ut på äventyr i stället, ut i *vida världen*. I morgon flyger jag till Bangkok! (B80–81) ‘So I am leaving for an adventure instead, out in the wide world. Tomorrow I’m flying to Bangkok!’

The expression is not used in the same way as *världen* ‘the world’ is used on its own:

(205) Vet du hur många fattiga det finns i världen/?i *vida världen*? (constructed) ‘Do you know how many poor people there are in the world/in the wide world?’

(206) Hela världen/?Hela *vida världen* måste minska sina koldioxidutsläpp med 60% till år 2050. (constructed) ‘The whole world/the whole wide world must decrease its carbon dioxide emissions by 60 % within to 2050.’

Even if the world is three-dimensional use of the expression *vida världen* ‘the wide world’ emphasises travel along its horizontal surface, and as such, the noun *världen* ‘the world’ can be qualified as referring to a two-dimensional object. It can be added that the lexicalised status of the phrase could mean that remnants from an earlier meaning are kept.

The next cases of *vid* ‘broad’ combining with a noun that refers to a non-surface concern *vid* ‘broad’ combining with nouns referring to three-dimensional objects. These uses can be seen as borderline-cases between two-dimensional surfaces and three-dimensional passages. These objects are an arbour, tree-crowns, sky and universe, see (207)–(211).

- (207) Jag kommer in på en stenlagd gård i Grekiska kvarteret och ser att den är täckt med vinrankor. Den enda stam från vilken denna *vida*, yppiga *lövsal* växer höjer sig ur en liten grop någon meter under stenläggningen. (B76–77) ‘I enter a paved yard in the Greek quarter and see that it is covered in vines. The only trunk from which this wide, lush arbour is growing stems from a small hole about a few metres below the paving.’
- (208) Och så satt de nu i skuggan under de *vida akaciakronorna* där de slagit läger; de hade bakom sig en klippa översållad med kullersten, och framför dem löpte en grässlänt ner mot kanten av en kullerstensfylld strömfåra med en skog bortom; och de drack sina inte mer än svala citrondrinkar och undvek att se varann i ögonen medan boyen dukade lunchbordet. (B76–77) ‘And so they were now sitting in the shade of the wide canopies of the acacias where they had made camp; behind them was a cliff littered with stones, and in front of them a grass slope ran down towards the edge of a stony stream with a forest beyond; and they drank their barely cool lemon drinks and avoided looking in each other’s eyes while the boy laid the table for lunch.’
- (209) Den lyfter mig, varsamt bäres jag av denna varma sommarvind upp i luften, högre och högre, ut i det stora *vida stjärnhavet*. (B80–81) ‘It picks me up, I am carried gently by the warm summer wind up in the air, higher and higher, out into the wide sea of stars.’
- (210) Där var folktomt och stilla. Hon satt och såg på skeppen för ankar på redan och bortom skeppen himlarnas *vida rum*. Här, där älven mynnade ut och havet låg öppet, var vattnen nästan alltid oroliga. (B80–81) ‘It was deserted and quiet. She sat and watched the ships lying at anchor in the roadstead and beyond the ships the wide expanse of the skies. Here, where the river flowed out and the sea lay open, the waters were almost always turbulent.’
- (211) En lång stund följde händelser och ord på varandra, sakta krypande, efter en annan tidsskala: varje sekund en minut, varje minut en långsam timme. Var det för att han just hade tömt ut sin kraft på Pakti, för att Joe var högtidlig och tungt behärskad eller för att hela *vida universum* plötsligt började flyta trögt, på väg att stelna... (B76–77) ‘For a long while events and words followed one another, crawling by, according to a different timescale: every second a minute, every minute a long hour. Was it because he had just exhausted himself with Pakti that Joe was formal and gravely self-controlled or because the whole wide universe had suddenly become sluggish, on its way to solidify...’

*Vid* ‘broad’ referring to the canopies of example (208) intuitively describes a non-vertical dimension. It may well be that the horizontal, non-vertical shape of the shadow influences such an interpretation.<sup>33</sup>

The examples concerning skies and space (209)–(211) are interesting. On the one hand, there is a true three-dimensionality in the sky and the space. In example (209), the preposition *i* ‘into’ is used, which indicates a comprehension of the object as three-dimensional. On the other hand, the human eye may have difficulties perceiving depth (the third dimension) in the sky or in outer space. Again, these examples form borderline-cases.

Finally, there is one example concerning a staircase:

- (212) Han skulle just börja löpa ner längs deras *vida trappa* men hejdade sig vid ett ljud bakom sig och när han vände sig om stod han ansikte mot ansikte med den gamla muttrande häxan från Gelt som lutade sig ner och framför hans fötter placerade – [...] (B76–77) ‘He was just about to run down along their broad staircase but stopped at a sound behind him; when he turned around he stood face to face with the old muttering witch from Gelt who bent down and in front of his feet placed – [...]’

In Chapter 6 on *bred* ‘broad/wide’, stairways were considered as paths and as such, comprehended as two-dimensional. If analysed in this manner, *vid* ‘broad’ combines with a noun *trappa*, which in this context refers to a two-dimensional surface. The preposition *längs* ‘along’ supports this view.

*Vid* ‘broad’ describing three-dimensional objects and spaces, such as *lövsal* ‘arbour’ and *stjärnhav* ‘starry sea’ can thus be considered a non-central case in the network model of the complex category. It has a relation both to the central case (passage) and to the non-central case of surface.

#### 7.4.5 *Vid* ‘broad’ combines with a noun referring to an object with horizontal orientation

The surfaces referred to as *vid* ‘broad’ are preferably oriented so that the two dimensions are extended in the horizontal plane. As mentioned in section 7.4.4, the surface mainly consists of water or forms part of the ground. Two instances can be seen in (213)–(214).

- (213) *Utsikten* därifrån var både *vida* och skön. (B80–81) ‘The view from there was both broad and beautiful.’
- (214) Den *vida grässlätten* bredde ut sig ned mot vattnet. (B76–77) ‘The wide grass slope extended down towards the water.’

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<sup>33</sup> Earlier in section 7.4.3.1, it was suggested that for passages whose opening extends in the vertical plane, *vid* ‘broad’ refers only to the horizontal dimension of the opening and not the vertical dimension. This observation could possibly be extended to three-dimensional objects, thus reading: it seems as if *vid* ‘broad’ does not refer to three dimensions, if one of the dimensions is vertical or simplified: *vid* does not refer a dimension, which has a canonical vertical orientation. Thus, *vid lövsal* ‘wide arbour’ in (207) would refer to the two-dimensional surface (ground) of the yard.

An object, which is not a passage, and which has two dimensions extending in a non-horizontal plane is normally not referred to as *vid* ‘broad’: *?vid tavla* ‘broad picture’, *?vid husfasad* ‘broad house front’, *?vid bergvägg* ‘broad rock-face’. When looking at such an object, the human gaze does not pass unrestrictedly along the object. In order to take in the object, the head must tilt. However, if the object is far enough away from the observer, it is possible for the gaze to pass unrestrictedly along the object. A few such uses can be found in the corpus (in all 6 instances). They all concern the sky or the outer space, see (215).

(215) Där var folktomt och stilla. Hon satt och såg på skeppen för ankar på redden och bortom skeppen himlarnas *vida rum*. Här, där älven mynnade ut och havet låg öppet, var vattnen nästan alltid oroliga. (B80–81) ‘It was deserted and quiet. She sat and watched the ships laying at anchor in the roadstead and beyond the ships the wide expanse of the skies. Here, where the river flowed out and the sea lay open, the waters were almost always turbulent.’

I suggest that when located so far away that the human gaze may pass unrestrictedly along its surface or perceived surface, the orientation of an object need not be horizontal.

There is another instance where *vid* ‘broad’ combines with a noun that refers to an object which does not extend in the horizontal plane. This example is shown in (186), repeated here as (216).

(216) Akyn tar en av knipporna rabarber och bryter av de stora, en halv aln *vida bladen*. (B80–81) ‘Akyn takes one of the bunches of rhubarb and snaps off the big two-foot wide leaves.’

Here I would like to suggest that this usage is old-fashioned. The use of the measure-unit *aln* ‘ell’ points in this direction in the archaic impression it makes. As mentioned in section 7.4.3.1, there are indications that *vid* ‘broad’ formerly referred to one dimension only. This may explain the use of the measure phrase.

#### 7.4.6 *Vid* ‘broad’ combines with a noun referring to an object with symmetrical dimensions

Concerning the passages, the dimensions are more or less of equal extension, both with regard to the corpus examples and the elicitation test data. An example from the corpus is given in (217).

(217) Hon gjorde en huvudböjning för fru Strandh och för sin svägerska och sedan vände hon på klacken, så att den *vida kjolen* sopade golvet. (B76–77) ‘She made a little bow to Mrs Strandh and to her sister-in-law and then turned on her heels so that her wide skirt swept the floor.’

The majority of the surfaces have dimensions of equal extension. One example is given in (218).

- (218) Men när jag kom till Rom och körde fram över Piazza del Popolos *vida vidder*, insåg jag att jag för första gången i mitt liv kände mig alldeles eländigt ensam. (B76–77) ‘But when I got to Rome and drove across the wide open spaces of the Piazza del Popolos, I realised that for the first time in my life I felt utterly and miserably alone.’

If one dimension of an object is very extended and the other hardly at all, it is scarcely possible to use *vid* ‘broad’ to refer to it, as in *?en vid kustremsa* ‘a wide coastal strip’.

In the corpus, there is one example where *vid* ‘broad’ combines with a noun that refers to an object where one dimension is considerably greater than the other:

- (219) Det var en vild och öde kust; och när deras eld flammade upp – så att trädstammarnas konturer verkade att dallra i hettan – och solnedgången bleknade över flodens *vida vatten* förnam Kelderek på nytt, som han hade gjort två dagar tidigare, hur ovanligt oroligt och uppjagat livet i skogen var. (B76–77) ‘It was a wild and desolate coast; and when their fire flared up – so that the contours of the tree trunks seemed to tremble in the heat – and the sunset faded over the wide water of the river, Kelderek observed again, as he had done two days earlier, how unusually unsettling and upsetting life in the woods was.’

Closer study of the context reveals, however, that the banks of the river are a long way apart, so that one is barely visible from the other, see (220). The characters in the example are starting a canoe trip.

- (220) De var ute nu och gungade fram över en bukt med bakvatten under öns norra kust. Den gröna skuggan av skogen ovanför dem sträckte sig ut över floden. Längre ut var vattnet blått med korta toppiga vågor som glittrade i solen och här och var bröts i vitt skum. Långt bort skymtade den norra strandens svartbrända ödsliga linje. (B76–77) ‘They were out now and bobbing along in the backwater of a bay below the island’s northern coast. The green shadow of the forest above them stretched out across the river. Further out the water was blue with low pointed waves that glittered in the sun and here and there broke into white foam. Far away the scorched desolate line of the northern bank was visible.’

The river of (219)-(220) therefore resembles a bay or even the sea, both objects with two horizontal dimensions of more or less equal extension, as far as can be seen. In the elicitation test, the noun *å* ‘stream’ occurred once.

#### 7.4.7 *Vid* ‘broad’ combines with nouns referring to objects which may extend beyond the field of vision

As indicated in section 7.2, it is argued in Weydt and Schlieben-Lange (1998) that *weit* ‘wide’ can combine with nouns such as *Land* ‘country’ and *Steppe* ‘steppe’ to refer to objects where the outer boundaries vanish into infinity. In my corpus, the non-passages, the objects, whose corresponding

nouns combine with *vid* ‘broad’, are vast and their borders may extend beyond an observer’s field of vision. Examples can be found in (221)–(222).

(221) De vandrade över himlen hela natten men ingenting annat rörde sig eller förändrades i den *vida ödemarken*. (B76–77) ‘They wandered over the skies all night but nothing else moved or altered in that wide desolation.’

(222) På morgonrodnadens vingar ville jag nå detta *hav*, det stora och *vida* och få leka med Leviatan. (B80–81) ‘On the rosy wings of morning I want to reach that ocean, vast and wide, and play with the Leviathan.’

This quality forms one of the differences between *bred* ‘broad/wide’ and *vid* ‘broad’, since objects referred to as *bred* ‘broad/wide’ are preferably within the field of vision, see Chapter 6 on *bred* ‘broad/wide’. Objects referred to as *vid* ‘broad’ share the quality of extending beyond the field of vision with objects referred to as *djup* ‘deep’ and as *hög* ‘high/tall’ and *lång* ‘long’ (where the quality is optional).

About half of the instances in the corpus in which *vid* ‘broad’ refers to an object that is or is perceived as a surface (*vida världen* ‘the wide world’ has been counted here, too), refer to an object which extends beyond the field of vision. The remainder include instances in which the borders of the object, although it is still large, are within the field of vision. Two such examples are shown in (196) and (195), repeated here as (223)–(224):

(223) Ute över det *vida vetefältet* svävade en brun vråk. (B76–77) ‘Out above the wide wheat field hovered a brown buzzard.’

(224) Inget tecken till liv syntes på den *vida*, ödsliga *fjärden*. (B80–81) ‘There was no visible sign of life in the wide, desolate bay.’

The large group in which *vid* ‘broad’ describes movements is not included among the usages of *vid* ‘broad’ to describe something vast. On the contrary, these movements are performed by body parts or, in some cases, by vehicles and indeed remain within the vision field.

*Vid* ‘broad’ in its surface-sense appears to include a quality pertaining to the relationship between the object referred to and the vision field of the user/observer. The object covers a great part of the vision field. The borders of the object may even extend outside the vision field. I find this quality especially interesting, since it contrasts to *bred* ‘broad/wide’ and moreover, there is a striking difference between the size of non-passages and the size of passages. It can be added that *vid* ‘broad’ can be used metaphorically as an adverbial in expressions such as *så vitt jag kan se* (lit. ‘as widely as I can see’) ‘as far as I can see’, and *så vitt jag förstår* (lit. ‘as widely as I understand’) ‘as far as I understand’, which indicates that an abstract dimension, referred to as *vid* ‘broad’ extends to the limit of the mental field of comprehension.

## 7.5 Summary of *vid* 'broad'

*Vid* 'broad' is considered polysemous and to correspond to a complex lexical category which can be described as a network model. In this model one sense forms the central case and three other cases are non-central. The central case concerns the combination of *vid* 'broad' with a noun referring to a passage. Linked to this central case is another case in which *vid* 'broad' combines with a noun referring to a surface. This case is considered more important than the remaining non-central cases. Another case includes uses with *vid* 'broad' combining with a noun referring to a movement. The movement forms a line, delimiting a surface, which constitutes the basis of the relationship between the sense describing surfaces and the sense describing movements. The fourth case involves *vid* 'broad' combining with a noun referring to a three-dimensional object. This sense may be seen as related both to the sense of surface and the sense of passage, borrowing qualities from each of them.

*Vid* 'broad' may describe one or two dimensions, but it does not describe a dimension along the vertical axis. It describes inner measurements only. *Vid* 'broad' has a direction going from the middle, out towards the sides.

## 8 The semantics of *tjock* ‘thick’

The purpose of this chapter is to give a thorough and detailed account of the meaning of the dimensional adjective *tjock* ‘thick’. *Tjock* ‘thick’ has a marked sense, indicating an extension, which surpasses a norm, and an unmarked sense, including no information regarding the relation of the dimension and the norm, but instead including information that the scale concerns a certain dimension and no other dimension.

The purpose is not to study to what extent a norm has to be surpassed for an object to qualify for description using *tjock* ‘thick’ in its marked sense.

In the chapter, uses about the human body and body parts are included. *Tjock* ‘thick’ used about the human body, as in *tjock gubbe* ‘fat old man’ and about body parts, as in *tjocka ben* ‘fat legs’, seems to play a central role, and these uses cannot be omitted if a fair account is to be given. Thus, the corpus has been extended, and in the data from elicitation test, dictionaries and native speaker intuition uses about the human body and body parts have been incorporated. A less strict interpretation of the extended embodiment thesis is advocated, and it cannot be ruled out that the adjective is used to describe objects outside the body in analogy to description of the body itself.

*Tjock* ‘thick’ is regarded a complex category with one central case (uses about human beings, certain body parts and other inanimate objects that can be idealised to cylinders) and four other non-central. Three qualities are important, and they occur in varying degrees among the five cases in the complex category and within the simple categories corresponding to the cases. Firstly, the adjective describes the minimal dimension(s) of an object. Secondly, the adjective describes degree of resistance against external forces such as kinetic energy or pressure. Thirdly, the adjective describes a dimension which is grasped or held if the object is manipulated. A major aspect of the analysis is the suggestion that the third quality unifies the first and the second quality, since it is possible to judge the degree of resistance by grasping the minimal dimension(s).

### 8.1 *Tjock* ‘thick’ in the dictionaries

A variety of object types may be referred to as *tjock* ‘thick’. In the dictionaries, collocations such as *en tjock bräda* ‘a thick board’, *en tjock trädstam* ‘a thick tree trunk’, *en tjock person* ‘a fat person’, *tjock dimma* ‘thick fog’ (Illustrerad svensk ordbok), *en tjock madrass* ‘a thick mattress’, *det tjocka gräset* ‘the thick grass’, *ett tjockt snötäcke* ‘a thick blanket of

snow', *tjock grädde* 'thick cream' (NEO) can be found. The diversity of object types justifies thematic presentation of the dictionaries in which the issues are what dimension is described, and the qualities possessed by the object referred to. SAOB, which is considered the most thorough of the dictionaries, has not yet published its article on *tjock* 'thick'.

### 8.1.1 What dimension is described according to the dictionaries?

NEO and Bonniers svenska ordbok define *tjock* 'thick' as describing a dimension that is perpendicular to the height or the length and the width. Nusvensk ordbok writes that *tjock* 'thick' refers to a dimension which is usually the minimal one. One of the dictionaries (Illustrerad svensk ordbok) contains the assertion that *tjock* 'thick' is used about something that has a certain or a relative *tjocklek* 'thickness', while Nusvensk ordbok states that *tjock* 'thick' means "av viss grovlek" 'of a certain bulk'.

### 8.1.2 Qualities of objects described as *tjock* 'thick', according to the dictionaries

NEO notes that the pertinent object is usually solid or that the dimension described is a solid part of the object. The latter is the case for their example *en tjock tröja* 'a thick sweater'. The same dictionary points out that *tjock* 'thick' describes more or less round objects that have a large cross-section. The other dictionaries do not omit this information, although it is provided by examples of objects with this shape, such as a tree (Nusvensk ordbok), or a tree trunk (Illustrerad svensk ordbok and Bonniers svenska ordbok). All four dictionaries link *tjock* 'fat' to humans. Bonniers svenska ordbok gives *fet* 'fat' as the first synonym. All dictionaries except one (Illustrerad svensk ordbok) state that *tjock* 'thick' can describe or is synonymous to other words describing liquids (here, rather viscous liquids such as sauce, jam and cream are included). All dictionaries except one (Bonniers svenska ordbok) note that *tjock* 'thick' can describe or is synonymous to other adjectives describing gases (like air, smoke, and fog). All of the dictionaries state that *tjock* 'thick' can describe something that grows abundantly and compactly, such as hair and grass or other plants. Two dictionaries (Nusvensk ordbok and NEO) show that *tjock* 'thick' can describe layers. The examples concern dust, butter and snow.

The dictionaries show heterogeneity regarding what sense or what kind of example is mentioned first. Illustrerad ordbok ranks *en tjock bräda* 'a thick board' as number one, followed by *en tjock trädstam* 'a thick tree trunk' and *en tjock person* 'a thick person'. In Nusvensk ordbok, the objects mentioned are, in the order given here, *limpskiva* 'slice of ryemeal bread'

and *person* ‘person’. NEO mentions *mur* ‘wall’ first, then *madrass* ‘mattress’, *tröja* ‘sweater’ and *person* ‘person’. Bonniers svenska ordbok starts with *man* ‘man’, then gives *trädstam* ‘tree trunk’, followed by *vägg* ‘wall’.

## 8.2 Related research in the past on THICK

According to Bierwisch (1967), German *dick* ‘thick’ should be understood in terms of proportions, consistency and density. Bierwisch distinguishes two meanings of *dick* ‘thick’, one considered a dimensional meaning and the other non-dimensional.

The dimensional *dick* ‘thick’ describes a dimension which is not a main dimension. When *dick* ‘thick’ describes a *Brett* ‘board’, the smallest dimension is regarded. This dimension is not considered a main dimension by Bierwisch while the two other dimensions are (Bierwisch 1967:20, Fig. 29). *Dick* ‘thick’ may also describe two dimensions, as is the case for *Zigarette* ‘cigarette’. These two dimensions are not main dimensions, while the remaining dimension is. *Dick* ‘thick’ may also describe three dimensions, such as for a sphere-shaped object, however it is not clear how these dimensions should be regarded in terms of main dimensions (Bierwisch 1967:21, Fig. 31 and 1967:30, 32). For a more detailed account of the study, see Chapter 2 (Previous related research).

Clark (1973) writes that *thickness*, in its linear sense, can be applied to objects with three dimensions. Further, it refers to an object once *tallness/length* and *width* have been applied to the two maximal dimensions, such as a door which is *tall*, *wide* and *thick*. The unmarked point of reference is a tertiary edge, whereas *wide–narrow* has a secondary edge and *tall–short* has the ground level as the unmarked point of reference.

Lyons (1977) separates unoriented entities and space from oriented ones. For unoriented, three-dimensional entities, the maximal extension of the object is identified as its *length*. If the two other dimensions of the object are negligible in comparison to its *length*, these two dimensions will be collapsed into the single dimension of *thickness*, such as *a long thick pole*.

For two-dimensional entities, the maximal extension of the object is still referred to as *long*. The second extension is then either called *wide – narrow* or *thick–thin*. If the minimal extension is significant, it will be described as *wide* or *narrow*, as a *street* is described as *long* and *narrow*, while if the minimal extension is not significant, it will be described as *thick* or *thin*, in the way that a *line*, *pole* or a *stick* is described as *long* and *thin*. Referring to an object as a *line* expresses that it is perceived as uni-dimensional. This approximates it to the ideal geometrical line.

Galeote et al. (1999) has tested how well Lyons’s analysis predicts the use of dimensional adjectives among Spanish-speaking adults, who were asked to describe different object in terms of dimensions. It turned out that

for THICKNESS, the term presented very few deviations from Lyons's results concerning cuboid-shaped objects, such as door and block, while for cylindrical solid objects, such as pencil, some informants preferred to refer to its two minimal dimensions as WIDTH as opposed to Lyons's predicted THICKNESS. Also, a cylindrical hollow object, such as tube, was in some cases regarded as having a THICKNESS as opposed to Lyons's predicted WIDTH.

Lafrenz (1983) states that German *dick* 'thick' can describe one, two or three dimensions but never main dimensions except when describing three (*ein dicker Apfel* 'a thick apple'). When describing all three dimensions of an object, *dick* 'thick' refers to a solid object, compared to *groß* 'big', which need not do so. The adjective can describe body parts, such as *dicke Arme* 'thick arms' and *dicke Beine* 'thick legs'. On the whole, *dick* 'thick' is closely related to qualities such as massiveness, strength, and resistance. When referring to non-solid objects, like *Rohr* 'pipe', the adjective *dick* 'thick' is ambiguous. It can both refer to the thickness of the material, and to the diameter. Moreover, in some contexts, *dick* 'thick' is synonymous with *hoch* 'high' and *tief* 'deep', as in *dicker/hoher/tiefer Schnee* 'thick/high/deep snow'. Finally, *dick* 'thick' may refer to resistance to penetration, as when combined with nouns such as *Forst* 'forest', *Suppe* 'soup' or *Nebel* 'fog'. In the last combination, the resistance to penetration refers to sight.

Lang (1989) presents only a tentative analysis of German *dick*. A semantic prime called sub is identified. Lang assumes that the key aspect of the meaning is 'optical impenetrability'. An object either allows us to scan/look through it along one of its axes, thus suggesting the use of *tief* 'deep', or the object prevents us from looking through it or along one of its axes, thus suggesting us to use *dick* 'thick'. Further, Lang points out that it is possible to use *dick* 'thick' and *tief* 'deep' for the same object, but only alternatively, that is, for the same extension of the object and not at the same time.

Lang (2001) has modified the analysis made by Lang (1989) concerning THICK. Criticisms from Vandeloise (1993), Stolz (1996) and Weydt and Schlieben-Lange (1995, 1998) have influenced the outcome. The semantic prime min now covers a smaller field than the semantic prime sub of Lang (1989). Only proportions are included in min, whereas qualities such as impenetrability are omitted. Min identifies a minor extent of a three-dimensional object, where the extent is not identifiable by max or across. Still, lexicalised terms for min may extend to "substance"-related dimensions, like density or consistency. (Lang 2001:1254.)

Further, Lang claims that proportion-based languages have a richer subfield of min terms differentiating object extent within the Inherent Proportion Schema, while proportion/observer-mixed languages have a poor subfield of min terms, that typically overlap with other frames of reference (Lang 2001:1271). As an example, Lang shows that what English,

a proportion/observer-mixed type of language, covers by *thick* and *thin* is differentiated in a proportion-based language such as Mandarin which distinguishes between integrated axes, as for a pole, and disintegrated axes, between body volume, between density and consistency of liquids.

Spang-Hanssen (1990) suggests an algorithm for the labels given in French to the different dimensions of objects. The minimal extension will be called *épaisseur* ‘thickness’. Objects with an open side facing the observer are excluded and do not have any *épaisseur* ‘thickness’, such as an *étagère* ‘(book)case’. This object has *hauteur*, *largeur*, and *profondeur* ‘height, width, and depth’.

In Weydt and Schlieben-Lange (1998) an alternative algorithm is suggested for the German adjectives. In their analysis, language users form images of objects in subsequent steps. In the first step, a two-dimensional description arises to which a third dimension is then added. Alternatively, the salient dimension is recognised initially and the two remaining dimensions are added in the second step. Only certain adjectives are “allowed” in the first step. THICKNESS is assigned to an object in the final step. *Dick* ‘thick’ is not allowed in the first step nor as the second dimension either (here *breit* ‘wide’ is always used). Thus, *dick* ‘thick’ may describe the minimal dimension of a cuboid, such as *Brett* ‘board’. For round or cylindrical objects, two or three dimensions may amalgamate and are referred to as *dick* ‘thick’. *Ball* ‘ball’ is regarded as *dick* ‘thick’, as is *Mensch* ‘human’, the latter thus being understood as a cylinder. The authors challenge the idea that *dick* ‘thick’ is a dimensional adjective. Even if it is used to designate dimensions, dimension is not part of its meaning. Rather, *dick* ‘thick’ indicates a quality of objects and is not restricted to their dimensions. According to their analysis, *dick* ‘thick’ means ‘difficult to get through’.

Geckeler (1997) has tested the applicability of the Weydt and Schlieben-Lange’s (1998) analysis (apparently published previously in a volume dedicated to Geckeler on his 60<sup>th</sup> birthday in 1995) on the French dimensional adjectives. German *dick* ‘thick’ corresponds partly to French *gros* and partly to *épais* ‘thick’. For round object, like a *ballon* ‘football (soccerball)’, the adjective is *gros* ‘thick’, and for cylindrical objects such as a *saucisson* ‘sausage’, the two minimal dimensions are referred to as *gros* ‘thick’, too. *Épais* ‘thick’ refers to the third, minimal dimension.

According to Vandeloise (1993), the role of resistance plays a crucial part in the meanings of THICKNESS. Vandeloise studies French *épais*, which corresponds to the one-dimensional ‘thick’ about objects, and also to ‘dense’ about the consistency of soups etc. There is a pragmatic bridge between these two meanings of the adjective, that Vandeloise chooses to label *resistance*: the meaning linked to consistency (density) indicates resistance to penetration, whereas the meaning linked to the smallest dimension reveals the smallest resistance to breaking. Further, he says that

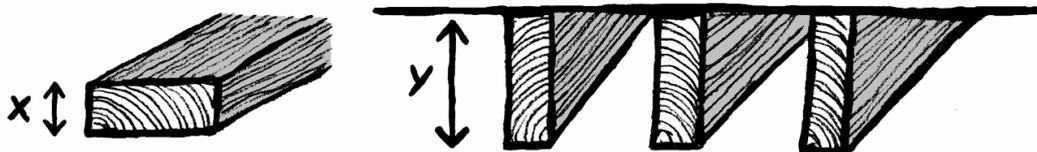


Figure 21. Boards supporting ceiling. After Vandeloise (1993:38)

if a set of boards supports a ceiling, *épais* ‘thick’ will no longer be used to refer to their smallest dimensions but to the dimension perpendicular to the ceiling (see Figure 21) since that is the dimension most likely to break from the pressure of the ceiling. For the board not supporting anything, *x* is the dimension called *épais*, but for the board supporting the ceiling, *y* is the dimension called *épais*.

Stolz (1996) describes and discusses Yucatec Maya *p̄im* ‘thick’ and *polok* ‘thick’. *P̄im* ‘thick’ identifies the minimal axis of three-dimensional objects, such as brick, wall and door. It can also describe the minimal axis of a three-dimensional cylinder, such as a coin or a wheel. For *p̄im* ‘thick’, orientation is not relevant. (Stolz 1996:215–216.) *Polok* ‘thick’ describes three-dimensional objects with two integrated axes and one disintegrated one. Examples of objects, which are described as *polok* ‘thick’, are tube, tower, human, pot, and wheel (the last example being contested among the informants). The object’s disintegrated axis should therefore be more than minimally extended to gain the acceptance of all the informants (Stolz 1996:217–218).

Yucatec Maya thus has a lexically expressed distinction between the thickness of flat objects and the thickness of round objects. According to Wienold and Rohmer (1997), a typological study of 31 languages, the lexicalisation of the thickness of flat objects is prior to lexicalisation of round objects, when such a distinction exists. Other languages (among them Basque) include the concept of both thickness and width in the same lexical item.

Linde-Usiekiewicz (2000) studies Polish dimension terms and describes THICKNESS as being associated indirectly to areas rather than to volumes. The same dimension can be referred to both as THICKNESS and as WIDTH, depending on whether the speaker focuses on the surface, as shown by *grube filary mostu* ‘thick piers of a bridge’ (focusing on the area) and *szerokie filary mostu* ‘broad (wide) piers of a bridge’ (not focusing on the area).

Rakhilina (2000) studies Russian *tolstyj* ‘thick’. The adjective either refers to a flat object, such as a leaflet or a window-pane, where the minimal dimension is the relevant extension for *tolstyj* ‘thick’, or it refers to the diameter of cylinders, both stiff and soft, such as candles and cords. Moreover, the adjective may describe soft containers, such as *tolstyj konvert* ‘thick envelope’, but not hard ones, such as *\*tolstyj sunduk* ‘thick chest’. Finally, the adjective may describe living creatures, both humans, and animals, such as *tolstyj kot* ‘thick cat’. Rakhilina remarks that animals associated with positive values, like an eagle for example which is strong, sharp-sighted and mighty, are never referred to as *tolstyj* ‘thick’, while animals associated with greed, such as pigs or rats may be. Rakhilina also shows how similar objects, having different functions, can or cannot combine with *tolstyj* ‘thick’. Walls, which were built to protect and reinforce, can be referred to as *tolstyj* ‘thick’, while fences, which were constructed to delimit a garden, are not. According to Rakhilina, the main function of walls should be perceived as related to their thickness and this is not the case for fences.

Jackendoff and Landau (1991) suggests that terms such as *square*, *circle*, *oval*, and *trapezoid*, refer to two-dimensional figures and that there are then terms for “thickened surfaces”, such as *slab*, *sheet*, *layer*, *slice*, *lamina*, and *stratum*. According to the authors, the adjectives *thick* and *thin* may be viewed as the result of a process in which a surface is turned into a volume (Jackendoff and Landau 1991:149).

### 8.3 Data

There seem to be strong associations between the adjective *tjock* ‘thick’ and the human body. In the elicitation text, 17 of 42 nouns referred to the human body or body parts and 2 nouns to animals or animals’ body parts. In the corpus, 438 occurrences concern spatial, non-metaphorical uses about animate bodies or body parts, whereas 460 occurrences concern spatial, non-metaphorical uses about inanimate objects (clothes excluded). This means that around half of the occurrences of spatial, non-metaphorical *tjock* ‘thick’ in the corpus involve the bodies or body parts of human beings or animals. All the dictionaries note the use of *tjock* ‘thick’ to refer to human beings although only one (Bonniers svenska ordbok) places this first in the article.

Therefore, the data have been extended to include the human body, body parts, animals and animals’ body parts. When discussing examples from the corpus, the figure 437 (which indicates the number of spatial, non-metaphorical uses concerning animate bodies and body parts) and the figure 460 (which indicates the number of spatial, non-metaphorical uses except animate bodies and body parts, clothes, etc) have been aggregated to form a new total of 897 examples.

Although nouns, referring to animals and animals' body parts, form a very small (and probably not so interesting) group in the corpus, I have included them. For other adjectives, combinations with nouns referring to animals etc. have been excluded since they are assumed to be similar to combinations with those that refer to the human body. If adjectives describing the human body and body parts are included, for the sake of consistency, those describing animals and animals' body parts should be as well.

## 8.4 Claims concerning *tjock* 'thick'

*Tjock* 'thick' in its spatial, non-metaphorical sense can be described as a complex category that constitutes a network model. One case is considered central. *Tjock* 'thick':

- Refers to the minimal dimension(s), where the adjective either has a marked sense, indicating extension that considerably surpasses a certain norm, or an unmarked sense which provides no information about relationship with a norm, but instead indicates that the scale involves the minimal dimension and no other.
- Refers to external measurements.
- Refers to a dimension which is grasped by the user's fingers, hands or arms, if the object referred to as *tjock* 'thick' is of the type that is often moved or manipulated in other ways.
- Refers to degree of resistance to external forces such as kinetic energy or pressure and indicates that this considerably exceeds a certain norm.
- Is only partially a dimensional adjective.

The adjective preferably combines with nouns referring to the human body.

## 8.5 Results and discussion on *tjock* 'thick'

In this section, *tjock* 'thick' will be subject to analysis which originates in three qualities: the minimal dimension(s), the dimension grasped by the fingers, hand or arms, if the object is manipulated, and resistance. The relationship of *hög* 'high/tall' and *tjock* 'thick' will then be examined. The embodiment thesis will be discussed, and finally a description of *tjock* 'thick' as a complex category will be presented.

### 8.5.1 The minimal dimension(s)

According to earlier research, see section 8.2, German *dick* 'thick' may refer to the minimal dimension (such as the minimal dimension of a flat

board), to two minimal dimensions (such as the two smaller dimensions of a pencil) and to three approximately equal dimensions (such as the three dimensions of a ball) (Bierwisch 1967, Lafrenz 1983).

In Swedish, *tjock* ‘thick’ refers to the two smaller dimensions of a cylindrical object or to the minimal dimension of a flat, three-dimensional object. There are indications that *tjock* ‘thick’ may, in some cases, refer to three, approximately equal, dimensions, too.

As proposed by Weydt and Schlieben-Lange (1998) and Ström (2001b), it is assumed that the human body, as well as certain body parts such as arms and legs, are idealised to a cylindrical shape.

Since *tjock* ‘thick’ referring to two minor dimensions of a cylindrical object has a prominent position in the data, this is where I will begin the discussion. Then, the use of *tjock* ‘thick’ to refer to one dimension will be studied, and finally whether *tjock* ‘thick’ can describe three dimensions.

The adjective may refer to the two minor dimensions of approximately equal extension of a cylinder. As already mentioned, I have counted *tjock* ‘thick’ referring both to the human body, see (225), and to some body parts, such as arms, legs, fingers, toes, neck, lips, nose, see (226), as describing a cylinder. The adjective refers to two dimensions in 370 out of 897 instances in the corpus, i.e. in a substantial number of cases. This figure includes both animate and inanimate objects.

(225) Längre bort såg jag den där *tjocka operasångaren* som jag brukade hinna ikapp utan svårighet. (B76–77) ‘Further away I could see the fat opera singer that I could usually catch up with easily.’

(226) Elisabet hade minsann ingen svanhals, utan kort och *tjock*. (B76–77) ‘Elisabet’s neck was definitely not like a swan’s but short and fat.’

Other body parts are described as *tjock* ‘thick’, but cannot easily be idealised to a cylinder. *Tjock hud* ‘thick skin’ describes rather one dimension (the minimal one) of an object. The same is valid for *tjocka ögonlock* ‘thick eye-lids’ and *tjock (sår)skorpa* ‘thick scab’. *Tjockt hår* ‘thick hair’ describes density. This usage forms rather large group in the corpus (101 occurrences out of totally 897) and is discussed further in section 8.5.3. *Tjock mage* ‘thick belly’, which both occurs in the corpus and in the elicitation test, and *tjock bak* ‘thick bottom’ and *tjocka kinder* ‘thick cheeks’ are more problematic. Being parts of another object (the body), their shape can be described as a layer. Layers are commonly referred to as *tjock* ‘thick’, which is further discussed in section 8.5.2. However, if a lot of flesh has gathered on the belly, bottom or on the cheeks, the layer will not be flat, but rather rounded that protrudes from the body. If the nouns *mage* ‘belly’, *bak* ‘bottom’ or *kinder* ‘cheeks’ are combined with *tjock* ‘thick’, the collocation indicates that they contain more flesh than “normal”. Both the belly, the bottom, and the cheeks will then assume a shape, which resembles that of a cylinder, cut in two halves, see Figure 22. In (227), such an occurrence is given.

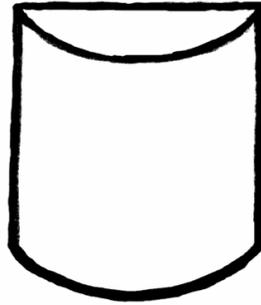


Figure 22. Idealised shape for belly, cheek, and bottom

(227) Han klappade sin *tjocka mage*. (B76–77) ‘He patted his thick paunch.’

I have regarded the occurrences of *mage* ‘belly’, *bak* ‘bottom’, and *kinder* ‘cheeks’ as a borderline case between the group in which *tjock* ‘thick’ refers to two dimensions of a cylinder and the group in which it refers to one dimension. There are only 10 such occurrences in the corpus (out of 897) which makes the group very small but there were also two such occurrences (*mage* ‘belly’ twice) in the elicitation test.

Other body parts which are problematic are the ones referred to as *ögonbryn* ‘eyebrows’. They are extended in shape. They are probably perceived as three-dimensional, either as cylinders (comparable to worms) or as cuboids (like elongated Lego-pieces). The picture becomes even more complicated because eyebrows consist of hair. This means that an element of density (comparable to thick hair) may be included or even given priority in the interpretation process. *Tjocka ögonbryn* ‘thick eyebrows’ probably indicates great extension in one or two dimension(s) and also dense hair. The corpus occurrences (altogether 9 out of 897, thus a very small group) have been counted among the occurrences where *tjock* ‘thick’ describes a cylinder, although they form a borderline-case.

In the elicitation test, nouns referring to humans occurred 17 times (*gubbe* ‘old man’, *person* ‘person’, *tjockis* ‘fatty’, *sumobrottare* ‘sumo wrestler’, *amerikan* ‘American’, *gumma* ‘old woman’, *tant* ‘aunt’, *människa* ‘human being’ and *barn* ‘child’). Two nouns referred to body parts (*mage* ‘belly’, 2 occurrences) and two nouns referred to animals (*hundar* ‘dogs’ and *katter* ‘cats’). Nouns referring to inanimate cylindrical objects occurred too. *Korv* ‘sausage’ occurred five times, *träd* ‘tree’ occurred once, as did *stam* ‘trunk’.

In (228), *tjock* ‘thick’ describes an inanimate object with a cylindrical shape. There are 62 (of 897) combinations of *tjock* ‘thick’ and a noun referring to such objects in the corpus.

(228) [...] – och en smal säng med sänghimmel av brokad med uddkant och en röra av sammetskuddar på sidenöverkastet, där en *tjock gardinstång* av mässing låg liksom ditkastad i vrede. (B76–77) ‘– and a narrow bed with a canopy of brocade with a decorated hem and jumble of satin cushions on the silk cover, on which a thick curtain rod of brass was lying as if cast there in anger.’

Lyons (1977) considers that when English *thick* describes a cylinder two dimensions are collapsed into a single dimension, labelled *thickness*. Lang (1989) refers to the phenomenon as an amalgamation of dimensions. In the corpus, there is one example of the combination of *tjock* ‘thick’ referring to the two minor dimensions of a cylinder with a measure phrase. The unit of the measure phrase shows that the two minor dimensions are regarded as a single one.

(229) Han skulle ha en som gick på larvfötter som en stridsvagn, en som kunde simma, en som kunde mangla ned alla buskar och alla *träd* som inte var över en decimeter *tjocka*. (B76–77) ‘He was going to have one that ran on caterpillar treads like a tank, an amphibious one, one that could mangle every bush and every tree that wasn’t over four inches thick.’

In (229), *tjock* ‘thick’ presumably refers to two dimensions. However, the measurement is expressed as *en decimeter* ‘a decimetre’, and not as *en kvadratdecimeter* ‘a square-decimetre’, which would be appropriate considering that *tjock* ‘thick’ refers to two dimensions (analogous to *rummet är 25 kvadratmeter stort* ‘the room is 25 square-metres big’ while *?rummet är 5 meter stort* ‘the room is 5 metres big’ sounds odd). The solution offered by Lyons (1977) and Lang (1989) seems valid for Swedish, too. The cross-section of a two-dimensional object referred to as *tjock* ‘thick’, such as a tree trunk or a stick, is different from the negative space that constitutes the opening of a passage, also two-dimensional, referred to as *vid* ‘broad’.<sup>34</sup> As was noted in Chapter 7 on *vid* ‘broad’, if a passage is referred to as *vid* ‘broad’, both dimensions count when it comes to the size of the objects it can swallow. For a cylinder, one of the two minor dimensions is enough to assess its strength when grasped, but the extension of the other minor dimension of a cylindrical object is necessarily the same as the first one. For this reason, only one of the two minor dimensions is of our concern, and this may be comprehended as the two dimensions being collapsed into one.

In (230), a flat, three-dimensional object is referred to as *tjock* ‘thick’.

<sup>34</sup> The term negative space, also: negative part, origins from Jackendoff and Landau 1991, see section 5.4.13 of the present work for an introduction of the term.

- (230) Du sitter nu och stirrar på kanten av den *tjocka glasskivan* på skrivbordet.  
(B76–77) ‘Now you are sitting there staring at the edge of the thick glass desktop.’

In the corpus, *tjock* ‘thick’ refers to one dimension in 344 (out of 897) instances. The nouns mostly refer to inanimate objects, as in (230), but may also refer to animate objects, i.e. body parts. In (231), one such example is shown.

- (231) En *tjock* och hård *hud* skyddade fötterna väl mot frost och vassa stenar.  
(B76–77) ‘Thick hard skin protected the feet securely against frost and sharp pebbles.’

In the elicitation test, there were two nouns referring to objects, for which *tjock* ‘thick’ describes one dimension (*bomull* ‘cotton’ and *hinna* ‘coat’).

*Tjock* ‘thick’ referring to one dimension may also be included in a measure phrase:

- (232) Över stora ytor var den svarta glasklara *isen* redan flera centimeter *tjock*.  
(B76–77) ‘In large areas the black crystal-clear ice was already several centimetres thick.’

Finally, there are indications that *tjock* ‘thick’ can refer to three dimensions in certain circumstances. Intuitively, *tjock* ‘thick’ referring to three dimensions feels odd. Children sometimes refer to three-dimensional objects as *tjock* ‘thick’. The combinations *tjocka äpplen* ‘thick apples’ and *tjocka bollar* ‘thick balls’ were observed in natural conversation of a four-year-old child but an adult speaker would probably not utter this.

In the corpus, there are 3 instances where *tjock* ‘thick’ may refer to three dimensions. (In the remaining 182 instances, *tjock* ‘thick’ refers to gases, liquids or hair and grass, where density, rather than the extension of dimensions, is taken into account, see section 8.5.3.) In (233)–(234), the 3 instances are given.

- (233) I gallren hänger *tjocka tussar* av damm och skräp. (B80–81) ‘Thick pieces of fluff and rubbish are hanging in the grating.’
- (234) Nu i början av april hade oljan drivit den långa vägen över havet in i Stockholms skärgård där den lagt sig i *tjocka klumpar* under isen och hotade stränder och sjöfåglars häckningsplatser. (B80–81) ‘Now at the beginning of April the oil had drifted the long way across the sea into the Stockholm archipelago where it had formed into thick lumps under the ice and was a threat to beaches and seabird breeding sites.’
- (235) Bonden såg begrundande på honom medan han skar *tjocka klossar* av en rökt fläksida och bjöd med knivspetsen och tuggade. (B76–77) ‘The farmer looked at him ponderingly while he cut off thick chunks of smoked ham and offered it to him on the end of his knife and chewed.’

Examples (233)–(235) concern objects where it is difficult to separate one dimension from another. The objects in examples (233)–(234) have no

prototypical shape. They may be irregular, which makes it difficult to discern or comprehend the extension of a dimension. The blocks of example (235) have a more regular shape. They need not be cubes but have cuboid shape. In that case, *tjock* ‘thick’ would refer to one dimension.

Another example, where *tjock* ‘thick’ refers to three dimensions, now concerning adult language, can be seen in (236).

(236) Om man gör det litet och *tjockt*. (natural observation) ‘If you make it small and thick.’

This natural observation was accompanied by the informant’s gesture of showing something small and compact inside her cupped hands. The informant was talking about a technique for blowing glass, and the material concerned in (236) is raw glass. The sentence is interesting. On the one hand, glass itself is a material that forms drinking glasses, windows etc., and as such, it can be thick or thin. On the other hand, what is intended here is the shape of the object, not the shape/size of the walls/boundaries of a container (the object is not a container yet, it is still not hollow). Maybe *litet och tjockt* ‘small and thick’ is contrasted to *lång och smal* ‘long and thin’ and as such, *tjock* ‘thick’ describes two dimensions only.

The material of which the object referred to as *tjock* ‘thick’ is made may affect whether the adjective can refer to three dimensions. An object which is supple may be creased, folded or pushed together, and the result may be a shape referred to as *tjock* ‘thick’. Raw glass has these qualities, as has paper and fabric:

(237) Jag skrynkade ihop pappret till en *tjock* liten *boll*. (constructed) ‘I crumpled up the paper into a dense little ball.’

(238) Jag skrynkade ihop det smutsiga överkastet till ett *tjockt* *bylte*. (constructed) ‘I crumpled up the dirty bedspread into a thick bundle.’

In the examples (237)–(238), it is difficult to separate the three dimensions from each other, and I suggest that *tjock* ‘thick’ refers to all three dimensions. It is interesting that certain materials, such as paper, and fabric (probably clay, too), facilitates the use of *tjock* ‘thick’ referring to three dimensions. Or is it rather the fact, that the objects are the result of a pushing motion that makes *tjock* ‘thick’ applicable? Apples and balls, which it was suggested above are not referred to as *tjock* ‘thick’, are neither made of a material that can be compressed nor the result of such a process. It is noteworthy that all the objects referred to as *tjock* ‘thick’ in examples (233)–(235) are made of more or less elastic material, such as meat, oil and dust. It seems to be the case that a certain elasticity increases the possibility of an object being described by *tjock* ‘thick’. This is further examined in section 8.5.3 in relation to resistance.

The collocation *tjock klump* ‘thick lump’ is also used in an extended sense, in the expression *en (tjock) klump i halsen* to describe a feeling in the

throat when tears are imminent. Here, I interpret the (imagined) lump to have a great extension in two dimensions. According to my intuitive understanding of the expression, the lump impedes the free passage from the oral cavity to the gullet and the windpipe. But the possibility that it describes three dimensions cannot be excluded. In my own experience, when I am close to tears, the lump ascends towards the mouth (the higher it reaches, the more severe the attack...).

There are no instances in the corpus of *tjock* ‘thick’ combining with a measure phrase when it refers to three dimensions. However, there is one example of the noun *tjocklek* ‘thickness’ combining with a noun describing a three-dimensional sphere-shaped object:

- (239) Man har i stället gjort de största ansträngningar för att rädda den i kritiska situationer; det visar t.ex. postulerandet av neutrino, detta spöke i atomernas värld, som saknar laddning, och kanske också massa, och som ledigt genomborrar en blyvägg av jordklotets *tjocklek*. (B80–81) ‘Instead the greatest efforts have been made to save it in critical situations; it is shown for example by the postulation of the neutrino, that ghost in the world of atoms, which lacks charge, and perhaps also mass, and that effortlessly pierces a lead wall the thickness of the earth.’

The earth is attributed a certain thickness, which should be understood as the straight measurement from one point (A) on its crust, through the middle of the globe and to a point (B) on the crust, as far as possible from point (A). To refer to the measurements of sphere-shaped objects using the noun *tjocklek* ‘thickness’ seems unusual. In (239), another object, a lead wall, is characterised as possessing the same thickness as does the earth-globe. The interesting aspect is the thickness of the lead wall corresponds to its minimal dimension, thus, one dimension while it invokes three for the globe or, to use Lang’s terms, three dimensions amalgamated into one (Lang 1989). It is probably the comparison of the one dimension of the lead wall to an amalgamated dimension of the globe that increases the acceptability of using *tjocklek* ‘thickness’ in this context. If two sphere-shaped objects were compared, *tjocklek* ‘thickness’ is probably not what would be used to refer to their dimensions:

- (240) ?Planeten X har ungefär samma *tjocklek* som jorden. ‘Planet X is probably approximately the same thickness as the Earth.’

### 8.5.2 The dimension is grasped by the user’s fingers, hands or arms

It seems that *tjock* ‘thick’ not only describes the minimal dimension(s) of an object, but also describes the dimension that is grasped, if the object is manipulated.

For animate objects, this manipulation has a few applications. It should partly be understood as carrying and lifting (as when placing one's hands around the torso of a child, under its armpits), partly as hugging, squeezing and pinching, but also as measuring an imagined body by moving one's arms/hands/fingers. The expression *man vill ju ha något att ta i* 'you want something to get hold of', used to describe the build of the ideal lover, indicates it is "better" to have something to grab. Probably, both arms, hands and fingers are involved. It also seems to be the case that it is pleasanter to fondle a chubby baby than a skinny one, at least for some people in my experience. Such fondling mainly involves hands and fingers. In the act of pinching, the fingers are involved. In the act of squeezing, the hand is involved, and in the act of hugging, the arms are involved. In (241), an example of squeezing is given. A child takes a grip of the arm of an adult when playing. In (242), a woman grips locks of her own hair.

(241) Uglük kom ihåg hur det började; när han ute i det kalla förrådet skulle försöka häva sig upp på Angus vänstra arm. Det gick bra vid armbågen, fastän *armen* var så *tjock* att det var svårt att få ett stadigt grepp. (B76–77) 'Uglük remembered how it had begun; out there in the cold larder when he tried to lift himself up on Angus's left arm. It worked at the elbow although his arm was so thick it was difficult to get a firm grip.'

(242) Med vänstra handen griper hon tag i en *tjock pasma* av sitt blonda hår, drar ner den, sträcker den, spänner den, på samma sätt som farfar gjorde för en mansålder sedan, klipper den strax under högra örats snibb. (B76–77) 'With her left hand she grabs hold of a thick skein of her blonde hair, lets it down, stretches it, holds it taut in exactly the same way as her grandfather had a lifetime earlier and then severs it just under her right earlobe.'

The noun *pasma* 'skein' is an old-fashioned word for a length of yarn wound into a coil.

The act of measuring an imagined body is relevant since social norms prevent us from running around and grabbing hold of each other's bodies when we feel like it. One example can be found in the way a speaker will grasp an imagined arm to demonstrate what they mean when they refer to how fat some (hopefully absent) friend's arms are. Behaviour like is probably one step away from mental scanning, although my study does not go any more deeply into this interesting and, for dimensional adjectives, presumably highly relevant issue.

The meaning that a dimension is capable of being grasped by the user's fingers, hands or arms may thus be direct or more implicit when *tjock* 'thick' is used about human beings or body parts. For inanimate objects it is more direct.

It seems to be the case that for inanimate objects that are made of solid matter and can be manipulated and moved around, *tjock* 'thick' will mainly be used to refer to the dimension grasped by the human hands or fingers in the course of this manipulation. In the corpus, inanimate objects made of

solid matter and which can be manipulated and moved around occur in 290 instances (out of 897 altogether). In 236 cases of the 290, i.e. for the majority of objects that are inanimate, solid and that can be manipulated, the dimension referred to as *tjock* ‘thick’ is the one most likely to be grasped like this. The objects in 9 of these 290 instances can be manipulated in several ways, and in 45 instances, *tjock* ‘thick’ is used to refer to a dimension other than the one grasped for the purpose of manipulation.

In (243)–(246), four examples are given in which the dimension described as *tjock* ‘thick’ is being grasped.

- (243) När handen flög ut och grep tag i en *tjock bok* på nattygsbordet ryggade Emily tillbaka och ropade: “Kastar ni den på mig så kastar jag tillbaks den och jag är nog bra mycket träffsäkrare än ni, madam.” (B76–77) ‘When the hand reached out and grabbed a thick book from the bedside table Emily started back and shouted: “If you throw that at me, I will throw it back and I am probably much more accurate than you, madam.”’
- (244) På en stor och *tjock skärbräda* bär Karin in kex, rågbitar, några piroger. (B76–77) ‘On a large, thick chopping board Karin carries in biscuits, rye bread, some pirogues.’
- (245) Han drog för luckorna och reglade dem, och sedan drog han för de *tjocka fönsterdraperierna*. (B76–77) ‘He closed and bolted the shutters, and then he drew the thick curtains.’
- (246) Under snyftningar springer han fram till pannskrubben och grabbar åt sig ett *tjockt vedträ*. (B76–77) ‘Sobbing, he runs to the boxroom and grabs a thick log.’

As will be further discussed and illustrated in section 8.5.6, *tjock* ‘thick’ is regarded a complex category which can be described as a network model. The quality of *tjock* ‘thick’ describing the dimension that is grasped by the user’s fingers, hands or arms is more or less present in four out of five cases in the network model. It is absent when *tjock* ‘thick’ describes gases and liquids. Here, the isolated factor of graspable dimension will be discussed, although this factor is not isolated in a given simple category, but interacts with one or two other qualities.

If *tjock* ‘thick’ is used to describe the dimension of an object that is grasped by the user’s fingers, hands or arms, the usage is ranked closer to the core in comparison with uses where *tjock* ‘thick’ does not describe the dimension that is grasped. The core should here be understood as the core of the simple categories, corresponding to cases of the complex category. In section 8.5.6, the complex category of *tjock* ‘thick’ is more discussed in further detail.

The quality of the graspable dimension varies in degree. *Tjock* ‘thick’ may combine with nouns referring to objects which can be manipulated in several ways, such as gold chains, bracelets, bark (the corpus example involves peeling bark off a tree trunk), gold rings, and boards. Such uses are not prototypical, but still close to the core.

Somewhat further from the core are uses for objects, that are not conventionally manipulated by grasping the dimension referred to even though it is still possible to hold or grasp it. Such objects are briefcases and bags, elastic bands, doors, watches, rings, tyres, eyeglasses (both regarding the lenses and the frames) and objects that act as containers (the last object-type will be discussed later in the present section). Briefcases, bags, purses, and doors have handles/straps so that they are not usually grasped by the dimension referred to as *tjock* 'thick'. If, for some reason, a briefcase, bag or purse lacks a handle/strap it will be held by grasping the dimension referred to as *tjock* 'thick'. A clutch bag is a handbag without a strap and it is grasped by its smallest dimensions. The door to a kitchen-cupboard may lack a knob, but the smallest dimension may be grasped to open it. However closing or locking doors requires another procedure involving some mechanism so that the smallest dimension may not simply be grasped. Such doors resemble walls and belong rather to the class of objects which are not easily manipulated. Eyeglasses are handled in a certain way to avoid smearing the lenses. But when they need to be cleaned, they are held by their smallest dimension (with a tissue between the fingers and the glass). Elastic bands and rings are probably too small for the fingers to be able to grip them by the dimension referred to as *tjock* 'thick', while tyres weigh too much to be carried just by grasping the corresponding dimension. The handling of tyres resembles the handling of containers, which is discussed later on in the present section.

Finally, peripheral uses in this respect concern cream cheese and buttered slices of bread. Both buttered bread and cream cheese are handled to avoid smearing the fingers. We do not grasp the layer of cream cheese in our hands, but we do put our teeth through the layer, an action which may be related to grasping.

Thus, it seems as if *tjock* 'thick' may include a sense of the dimension being grasped or held, stronger for some uses, weaker or non-existent for some. Studying *bred* 'broad/wide' and *vid* 'broad', involved discussion of whether the dimension was visible within the vision field, see Chapter 6 on *bred* 'broad/wide' and Chapter 7 on *vid* 'broad'. The dimension, referred to as *tjock* 'thick' is mostly visible within the vision field, or at least it has a size which would make it visible if the construction of the object permitted such a view (which is not the case for floors and walls). However, visibility seems not to be the central sense here. Instead, feeling is important. In (247)–(248), this is illustrated.

(247) Birgitta tog emot kavajen tvärs över bordet, kände *något tjockt* och tungt i innerfickan. – Vad har du här? – Ett protokoll. (B76–77) 'Birgitta was handed the jacket right across the table, felt something thick and heavy in the inside pocket. – What have you got here? – A report.'

(248) Jag ska bara ögna igenom tidningen... *Bladen* känns sträva och *tjocka*. Man skårar så lätt tummens yta. (B76–77) 'I'm just going to have a quick look at

the newspaper... The pages feel rough and thick. You can easily cut your thumb on it.'

This can be summed up by saying that there seems to be a link between the dimension(s) referred to as *tjock* 'thick' and the action of grasping or holding, although this quality is more prominent for some uses than for others. It has already been pointed out in 8.2 that Linde-Usiekniewicz (2000) associates THICKNESS to areas rather than to volumes, while Jackendoff and Landau (1991) suggests that some shape terms denote "thickened surfaces". I would like to suggest that height/length and width are more vision-related and invoke surfaces in the visual field while the third, minimal dimension (or the two remaining dimensions, if the object resembles a cylinder) gives this surface volume and flesh. The majority of the inanimate objects referred to as *tjock* 'thick' in the corpus are objects which in the first place may be perceived as two-dimensional (*omslagspapper* 'wrapping paper', *matta* 'mat', *lagret med röd fernissa* 'the layer of red varnish', *gardiner* 'curtains'). This surface is then converted into a volume, as postulated in Jackendoff and Landau (1991), and *tjock* 'thick' is used to refer to the third dimension. The process also resembles Weydt and Schlieben-Lange's (1998) two-step sequence, although I would prefer not to attribute a time dimension to the process. I have no supporting data to suggest how this process actually takes place, and therefore my use of words like "in the first place" and "then" should be understood as simplifying a (presumably) very complex process. Strzelecka (2003) points out that the minimal dimension of a mat is not considered vertical, as can be seen in the example *?han kliver upp på mattan* 'he steps onto the mat'. This may indicate that the minimal extension is neglected (Strzelecka 2003:212).

Layers may be regarded as a type of "thickened surface". The corpus contains examples concerning layers of snow, sand, earth and other material, referred to as *tjock* 'thick', see (249).

- (249) Han avskydde att se de magra barnen i sina trasor och de gravida kvinnorna som bar samma barn till skolan när *snön* var för *tjock* för fötter utan skor. (B76–77) 'He hated to see the emaciated children in rags and the pregnant women who carried the same children to school when the snow was too thick for feet without shoes.'

Substances such as snow and sand can be referred to "loose solid substances" according to Herskovits (1986). Small, disparate parts make up "loose solid substances" and they most often occur in the shape of a layer. It is often the case for layers of loose solid substances that their minimal dimension is their only relevant dimension and so it is interesting in providing a measure of the relevant amount of the substance. The total amount of snow, i.e. its extent and thickness is not relevant, only its thickness.

The same phenomenon occurs for edible food in layers or in slices:

(250) Han bredde smör på sitt bröd. Han bredde ett jämnt och *tjockt lager* nogsamt ända ut i kanterna. (B76–77) ‘He spread some butter on his bread. He carefully spread a thick, even layer right to the edges.’

(251) Han skar sig själv två *tjocka brödskeivor*, spetsade köttbitarna på kniven och åt glupskt. (B76–77) ‘He cut himself two thick slices of bread, skewered the pieces of meat on his knife and greedily ate.’

For the butter in (250), the area is more or less standardised (it corresponds to the area of the slice of bread). A thicker layer will mean a greater amount of food. Thus, *tjock* ‘thick’ here acquires an additional meaning of ‘rich, substantial’. For the bread of (251), the area, again, has a certain given size, corresponding to the loaf of bread. A thicker slice will mean a bigger portion.

In some cases, *tjock* ‘thick’ refers to a “fourth” dimension, as hinted on in the section regarding the dimension grasped to manipulate an object. Lafrenz (1983) points out that German *dick* ‘thick’ may refer to the thickness of the material of a non-massive object. An object, often a container, is described by one set of dimensional adjectives to describe its three-dimensional size, and described by another adjective to describe its walls or the material it made of. In (252) one such example is given.

(252) De drack ur *tjocka vita koppar*. (B76–77) ‘They drank out of thick white cups.’

Another example, from a natural observation concerns a vase (this was also brought up in Chapter 1, Background and introduction). At a party, one person (A) asking for a vase referred to it as *den tjocka vasen* ‘the thick vase’. Another person (B) handed her a vase with a bulging shape. When this was rejected the second person (B) understood a vase with thick walls was wanted. These containers are usually not grasped by the dimension referred to as *tjock* ‘thick’. To pinch the object in such a way would be impractical.

Related research shows that when describing clothes, *tjock* ‘thick’ commonly describes the material. The three dimensions of a coat may be described as *lång* ‘long’ and *vid* ‘broad’ (where *vid* ‘broad’ describes two dimensions), and its material as *tjock* ‘thick’ (Ström 1997). In the elicitation test, 10 out of 42 nouns concerned clothes.<sup>35</sup> In section 8.1, it was noted that, according to the dictionary NEO, *tjock* ‘thick’ may refer to a solid part of an object, such as *en tjock tröja* ‘a thick sweater’. Here, the fabric that the sweater is made of is referred to as *tjock* ‘thick’, regardless of the other dimensions of the garment (the sweater may be a large or small garment). Especially when applied to objects made of supple and soft materials, the adjective *tjock* ‘thick’ may include information not only about the extension

<sup>35</sup> The test was executed on an October morning when the weather had turned unexpectedly cold. The nouns were *jacka* ‘jacket’ (3 occurrences), *tröja* ‘sweater’ (3 occurrences), *päls* ‘fur’, *mössa* ‘hat’, *vante* ‘mitten’, and *strumpor* ‘socks’.

of the dimension but also the texture. The combination *en tjock matta* refers not only to a great extension of the minimal dimension, but also to its softness. In example (253) mats are described as *mjuka tjocka* ‘soft thick’, but I consider one of the adjectives redundant (*mjuk* ‘soft’ implies thickness and *tjock* ‘thick’ implies softness regarding mats). Note that *mä* is a regional variant of *med* ‘with’ and that *matter* is a regional variant of *mattor* ‘mats’.

- (253) När vi blir stora ska vi ha ett varmt hus *mä mjuka tjocka matter* och tjocka gardiner och många kuddar. (B76–77) ‘When we grow up we’ll have a warm house with soft, thick carpets and thick curtains and a lot of cushions.’

Note that *tjock* ‘thick’ implying softness applies in some contexts, for example for supple materials. Applied to human skin, the collocation *tjock hud* ‘thick skin’ implies hard skin, as can be seen in example (231) in section 8.5.1.

Not only surfaces may be “thickened”, but one-dimensional lines, too. According to Lyons (1977), a two-dimensional object, where one dimension is not significant, may be referred to as *long* and *thick*, alternatively as *long* and *thin*. If an object is called a *line*, it is comprehended as one-dimensional, and it is approximated to a geometric line. There are three instances in the corpus where an object is referred to as *tjockt streck* ‘thick line’. One of them is given in (254).

- (254) I anteckningsboken med yrkesdrömmar hade han nu strukit över KOCK med ett *tjockt rött streck*. (B76–77) ‘In the notebook with dream jobs he had now crossed out COOK with a thick red line.’

I understand the object, referred to as *streck* ‘line’ in example (254), as one-dimensional in the first place. Then, a desire to speak about its body has occurred, and it is referred to as *tjock* ‘thick’. Thus, the process is analogous to the description in Jackendoff and Landau (1991) of certain geometric configurations, such as coats and sheets, as “thickened surfaces”, although, here it is not a thickened surface but a thickened line.

In Chapter 9 on *smal* ‘thin’, *tunn* ‘thin’ and *trång* ‘narrow’, it is suggested that *tunn* ‘thin’ idealises the referred object to a one-dimensional line, while *smal* ‘thin’ rather idealises the object to a two-dimensional area.

Letters can be comprehended as formed by one-dimensional lines. There are three instances in the corpus concerning letters or other graphic symbols. One of them is given in (255).

- (255) I WAS HERE, också det frimodigt, att här hände nåt märkvärdigt den minuten jag var här: alla skäl till att det ska bli upptecknat, med *tjocka bokstäver*. (B80–81) ‘I WAS HERE, that frank as well, for something strange happened here the minute I was here: all good reason for it to be recorded, in thick letters.’

When referred to as *tjock* ‘thick’, I consider the letters are “thickened lines”. In another example, letters are referred to as having volume, see (256).

- (256) Den första strejkmorgonen såg hon vad Konrad hade skrivit på kaféfönstret. Att det var han begrep hon på en gång men inte att det var marängsmet. Hon fick lov att gå in och känna på de *tjocka* kletiga *bokstäverna*. Snorvalp, tänkte hon. (B76–77) ‘On the first morning of the strike she saw what Konrad had written in the café window. She knew it was him straight away but not that it was meringue mixture. She got permission to go in and touch the thick sticky letters. Cheeky brat, she thought.’

The letters have been written on a windowpane using meringue mixture, and it can be assumed that they stand out from the pane like a relief. A relief can be referred to as *hög* ‘high’, see Chapter 5. However, to refer to the letters of (256) as *hög* ‘high’ would have implied that they had a great extension in the actual vertical dimension (along the pane), since *höga bokstäver* ‘high letters’ indicates a dimension that is inherently vertical, see Chapter 5 on *hög* ‘high/tall’.

### 8.5.3 Resistance

As mentioned in section 8.2, Vandeloise (1993) ties the semantics of French *épais* ‘thick’ to resistance, either resistance to penetration (for the sense linked to density, such as thick soup) or to breakage (for the sense linked to dimension, such as thick board).

Lafrenz (1983) proposes that German *dick* ‘thick’ is closely related to strength, massiveness, resistance, while in Weydt and Schlieben-Lange (1998) it is suggested that *dick* ‘thick’ means ‘difficult to get through’. According to Weydt and Schlieben-Lange (1998), German *dick* ‘thick’ may refer to the minimal dimension, to two minimal dimensions or to three dimensions, however, they regard this as a consequence of other circumstances, and reject the dimensional meaning of *dick* ‘thick’. In doing so they claim that the resistance meaning is dominant. Lang (1989) associates *dick* to ‘optical impenetrability’. Rakhilina (2000) explains why walls, but not fences, are referred to using Russian *tolstyj* ‘thick’ by referring to the fact that walls have a protecting and reinforcing function, while fences lack this function.

The quality of resistance catches an essential part of the meaning of Swedish *tjock* ‘thick’, too. The quality is probably more prominent for inanimate objects than for animate ones (humans, body parts, animals and animals’ body parts). I would like to tie this quality to another quality, namely the one of being grasped or held by the user’s fingers or hands. When grasping an object, we (as users) assess the strength of the object (consciously or unconsciously) by pressing our fingers towards either side of it or by closing our fist around it. It seems to me that we have learnt to deduce the strength and resistance of many objects from visual input

concerning the extension of the minimal dimension(s) only but it is important to feel new objects. One example of the failure of vision to provide enough information is when shopping for clothes. We tend to touch the garments in order to gauge their quality. Another example is an episode from real life when two of my friends were introduced to each other for the first time. On shaking hands they uttered an exclamation of surprise because each experienced the other hand as so skinny that contact was unpleasant. This information had not been provided by vision.

Thus, the adjective *tjock* ‘thick’ not only gives information on dimensions but also on strength, solidity, resistance (see Lafrenz 1983 on German *dick* ‘thick’) and on resistance to fracture (see Vandeloise 1993 on French *épais* ‘thick’). This last, I interpret as meaning that the object is strong and resistant enough to fulfill its purposes. In the corpus, there are only a few cases where an object is actually subjected to a force that breaks it. One of them can be seen in (257).

- (257) Jag har sett en kronhjort slita ett *rep tjockt* som en av stängerna här och sedan döda två oxar. (B76–77) ‘I have seen a stag slash a rope as thick as one of the poles here and then kill two oxen.’

It is more frequent to find an object referred to as *tjock* ‘thick’, and at the same time described as strong:

- (258) Av någon anledning tycks det vara den svalaste platsen i huset, några säger att det rinner en källa under den, men *golvet* verkar ju *tjockt* och stadigt och jag har aldrig undersökt saken”, sa han med ett tunt leende och pekade på det tredje rummet. (B76–77) ‘For some reason it seems to be the coolest place in the house, some people say that a spring flows underneath, but the floor seems thick and sturdy and I’ve never investigated the matter”, he said with a thin smile and pointed to the third room.’

Inanimate objects may be described as *tjock* ‘thick’ to provide the information that they are strong, massive and resistant.

Concerning inanimate objects, the meaning of the extension of the minimal dimension is lost when *tjock* ‘thick’ is used to refer to objects such as liquids and gases, but nevertheless the meaning of resistance is retained:

- (259) *Luften* är kväljande *tjock* av cigarettrök och stekos. (B76–77) ‘The air is nauseatingly thick with cigar smoke and the smell of frying food.’
- (260) Han var mycket hungrig, men *vällingen* kändes *tjock* och svår att äta. (B80–81) ‘He was very hungry, but the gruel felt thick and difficult to eat.’

In the corpus, a great variety of object types occur in association with *tjock* ‘thick’. As mentioned above, it may refer to gas, see (259), and liquid, see (260). It may refer to loose solid substances such as snow and sand, see (261), soft materials such as mats (262), stiffer objects such as newspapers and books (263), and finally to highly rigid objects such as chopping boards, window panes, and walls, see (264). In this grouping, human beings

may be placed somewhere between stiffer objects and hard objects, see (265).

- (261) Hon var aldrig i huset när Eva kom, inte ens när *snön låg tjock* och nordanvinden blåste från bergen. (B76–77) ‘She never was in the house when Eva came, not even when the snow lay thick and the north wind blew from the mountains.’
- (262) Sängen var bred, *mattan tjock* och välbeströdd med kuddar. (B76–77) ‘The bed was wide, the carpet thick and dotted with several cushions.’
- (263) Hon gjorde en försiktig trevare om att hjälpa till med reskostnaderna, men han klippte genast av genom att visa fram en *tjock plastfolder*: – Jag har fått flygbiljett och allt som behövs från Marocko. (B76–77) ‘She threw out a feeler about helping out with the travel expenses, but he interrupted straight away by showing a thick plastic folder: – I’ve received a flight ticket and everything I need from Morocco.’
- (264) Var det de *tjocka stenmurarna* i fängelsehållorna som skrämde bort själva pesten? (B76–77) ‘Was it the thick stone walls of the dungeons that scared off the plague itself?’
- (265) Reine fick så småningom hjälpa en av dem, en *tjock kille* med krulligt rödbrunt helskäg som hette Leif, att rulla ihop de elektriska sladdarna. (B76–77) ‘In the end Reine was able to help one of them, a fat guy with curly reddish-brown hair called Leif, to reel in the electric cables.’

In the elicitation test, apart from nouns referring to human beings, both nouns referring to gas (*dimma* ‘fog’), to liquid (*grädde* ‘cream’), to soft solid objects (*bomull* ‘cotton’), and to more rigid objects (*korv* ‘sausage’) were included. The various object types may be viewed as a continuum in terms of the hardness of material, from very indeterminate/soft objects (gases) to very hard ones (walls and windowpanes). I would like to suggest that the meaning involving reference to the extension of the minimal dimension is stronger for hard, semi-hard and soft objects, weaker for loose solid substances and non-existent for liquids and gases. Where resistance is concerned, the opposite applies. This meaning is stronger for gases and liquids, somewhat weaker for loose solid substances and soft objects, and even weaker for semi-hard and hard objects. Softer objects are more elastic than harder objects. An elastic object is, generally, more resistant than a non-elastic one, since forces may “bounce back” from elastic objects while non-elastic objects can be cracked, broken, penetrated etc. Compare a crisp cracker to a slice of soft cake. It seems like *tjock* ‘thick’ involves a quality of elasticity, however, I have regarded this as directly tied to resistance so that it has not been ascribed the status of a separate quality.

The human body can be regarded as semi-soft. It is not rigid but has a certain elasticity and resistance. A human body that can be described as *tjock* ‘fat’ may also be described as heavy, an aspect that could be viewed as linked with resistance.

As has been mentioned, describing objects as *tjock* ‘thick’ may be invoke the concept of strength. However, *tjock* ‘thick’ applied to human beings is associated rather with negative values. In the corpus, men and especially women are described as *tjock* ‘fat’ in contexts such as (266).

(266) Du bryr dig inte om mig som förut. Du tycker att *jag* är *tjock* och ful. (B80–81) ‘You don’t care for me like you used to. You think I’m fat and ugly.’

In other words, applying *tjock* ‘fat’ to the human body does not initially conjure up strength. In the corpus (fiction written 1976–77 and 1980–81), *tjock* ‘fat’ is linked to lack of attractiveness while today there is also a connotation of ill-health as well, according to native speaker intuition.

It can be noted that when related to obesity the adjective *tjock* ‘fat’ is absolute. This means that the adjective *tjock* ‘fat’ is marked in comparatives, etc. Thus *Lasse är tjockare än Pelle* ‘Lasse is *fatter* than Pelle’ means that both men exceed the norm. (Lundbladh 1988:44.) My own interpretation of this is that *tjock* ‘fat’ has become a charged adjective, due to ideals of beauty, and this prevents speakers from using it in an unmarked sense about people. *Tjock* ‘fat’ has increasingly been replaced by *överviktig* ‘overweight’ in more neutral contexts. There are also other, more flattering adjectives, such as *kurvig* ‘curvaceous’ or *fyllig* ‘plump’ (both about women), or adjectives which convey a cautious approach, such as *lite stor* ‘somewhat large’ and *lite rund* ‘slightly chubby’.

However, there are some body parts for which ideals of beauty prescribe thickness. At the time the fiction in the corpus was written, *tjockt hår* ‘thick hair’ was considered beautiful, as can be seen in (267).

(267) Hon hade ljus hy och *tjockt* mörkt *hår* och såg bra ut. (B76–77) ‘She had fair skin and thick dark hair and looked attractive.’

The use of *tjock* ‘thick’ to describe hair will be discussed in relation to grass, later on in this section.

Another interesting group in the continuum from the point of view of indeterminacy consists of loose solid substances. These substances position themselves in the middle of the continuum. In forming a measurable layer, see (268), they clearly invoke a dimensional meaning and at the same time they form a substance that can be penetrated in much the same sense as liquid, see (269). They also have a high degree of elasticity.

(268) Det enda man kan göra för att hejda jäsningen är att stoppa lufttillförseln och att därför breda ut ett minst 50 centimeter *tjockt lager* av sand mellan två skikt avfall på maximum 2,50 meter. (B76–77) ‘The only thing you can do to prevent the fermentation is to stop the supply of air by spreading a layer of sand at least 50 centimetres thick between two layers of rubbish that are no more than two and a half metres thick.’

(269) Jag sjunker ner i ett vitaktigt, *tjockt lager* som jag är van vid och som består av uppblött papper och aska, men som här besitter en ovanlig täthet. På vissa

ställen blir materialet trådigt, filtmjukt och en av mina vägvisare förklarar för mig – på avstånd – att två textilfabriker kastar balar med ludd som endast undan för undan smälter samman med dyn. (B76–77) ‘I sink into a thick, whitish layer that I am used to, consisting of soggy paper and ashes, but which here has an unusual density. In certain places the material becomes fibrous, as soft as felt, and one of my guides explains to me – at a distance – that two textile factories throw away bales of fluff that only gradually mix with the mud.’

For these objects, the meaning of the graspable dimension is not so prominent as these are objects that are not easily grasped.

However, even for very hard object, the quality of resistance may be stressed. Such an example is shown in (268).

(270) Vi går upp till mej, sa hon svagt. Där kan vi talas vid i lugn och ro. *Dörren* till expeditionen var *tjock* och betryggande och när den fallit igen bakom oss hördes larmet från elevernas värld bara som ett svagt brus. (B80–81) ‘We’ll go up to my place, she said weakly. We can talk in peace and quiet there. The door to the office was thick and reassuring and when it had closed behind us the noise from the world of the schoolchildren could only be heard as a faint murmur.’

In (270), the extension of the minimal dimension of the door provides reassurance that a conversation behind it will remain private. The door is soundproof so its resistance to sound is what is at stake.

Human hair is commonly described as *tjock* ‘thick’. In the corpus, combinations in which *tjock* ‘thick’ combines with a noun referring to hair occur 101 out of 897 times. One example is shown in (271).

(271) Tony hade farit väl av italienvistelsen, den hade tagit fram de varma färgerna han hade efter Gregor: *tjockt* mörkt *hår*, en ännu i december solbränd hy. (B76–77) ‘The stay in Italy had done Tony a lot of good, it had brought out the warm colours he had inherited from Gregor: thick hair and a tan even though it was December.’

This use is reminiscent of the way in which objects like plants are described as *tjock* ‘thick’, see (272)–(276).

(272) Smaragdgröna duvor satt uppflugna i det täta lövverket och blanka gröna giftormar gled som rinnande vatten genom det *tjocka* gräset. (B80–81) ‘Emerald-green pigeons sat perched in the thick foliage, and glossy green poisonous snakes slid like running water through the thick grass.’

(273) Det var ett hörnrum på övre våningen, stort och ljust och man såg även inifrån den *tjocka* murgrönan som inramade fönstren. (B76–77) ‘It was a corner room on the upper floor, big and bright, and even from the inside you could see the thick ivy framing the windows.’

Examples (271) and (272) include no dimensional information, while (273) may do so. *Tjock* ‘thick’ includes information on the density instead, or in other words resistance to external forces. For grass and ivy, one external

force could be trying to pull one's fingers through the plants. Similarly, for hair it may be brushing or combing it. What Lang refers to as 'optical impenetrability' and Lafrenz (1983) as resistance to penetration regarding sight is another suitable description. In example (274), optical impenetrability is stressed by the phrase *det avlägsna tornet bleknade bort* 'the distant tower faded away', which refers to a tower not being visible anymore, thanks to the thick branches.

- (274) Hon gick snabbt framåt, före ljusstrålen, och snubblade inte på stegen, fast det höga gräset långsamt gav vika för låga grushögar och skogen tätnade och det avlägsna tornet bleknade bort med månen och det allt *tjockare grenverket* över våra huvuden. (B76–77) 'She made her way quickly, in front of the beam of light, and didn't stumble, although the high grass gradually gave way to low mounds of gravel and the forest thickened and the distant tower faded away with the moon and the increasingly thick branches over our heads.'

The resistance to optical impenetrability, stressed by Lang (1989) and Lafrenz (1983), may be extended further to relate to tactile impenetrability. I have already mentioned that when buying clothes we tend to touch and grasp the material in order to assay its quality. It can be assumed that this experience may be translated into vision in the sense that when the same material is reencountered, the quality of the material can be appreciated solely on the basis of visual input. This process may go the reverse direction too so that on seeing something that is optically impenetrable, we may realise that it is also impenetrable to touch. This is probably the case for and *tjock sly* 'thick undergrowth', see (275), and *tjock skog* 'dense forest', see (276).

- (275) Han tyckte att det kom från ett ställe där träden stod tätare och där ett *tjockt sly* av al och vide hade växt opp som om marken just på detta ställe vore mycket fuktig. (B76–77) 'He thought it came from a place where the trees were denser and where a thick undergrowth of alder and willow had grown up as if the soil at precisely this location was very moist.'
- (276) Han ledde mig över ännu en stor gräsmatta, genom en förtjusande labyrint av idegranshäckar, förbi två drivhus och en mycket välhållen köksträdgård och sen nerför ytterligare en grusgång, som sluttade brant ner genom en *tjock skog*. (B80–81) 'He led me across another large lawn, through a charming labyrinth of yew-tree hedges, past two hothouses and a very well-kept kitchen garden and then down another gravel path that sloped down steeply through a dense forest.'

Objects, referred to as *tjock* 'thick' may be subject to factive motion towards the object. In section 8.5.1, soft material (paper, fabric, etc.) was squeezed together, creating an object, referred to as *tjock* 'thick'. Some objects, referred to as *tjock* 'thick', function as a protective layer:

- (277) Stugan låg skyddad under det *tjocka halmtaket*. (B76–77) 'The cottage was protected by the thick thatched roof.'

The roof of (277) is subject to outer forces such as wind, rain and snow. The roof functions as a layer protecting the cottage. (It can be noted that the cottage is also protected from cold, which is, however, not considered a force.) Other objects referred to as *tjock* ‘thick’ that function as protective layers are *tjock, gammaldags binda* ‘thick, old-fashioned sanitary pad’, *tjocka dynor* ‘thick cushions’, *tjock skärbräda* ‘thick chopping board’, *tjock madrass* ‘thick mattress’, *tjock ruta av skottsäkert glas* ‘thick pane of bullet-proof glass’, *tjocka bandage* ‘thick bandage’, and *det tjocka bruna omslagspapperet* ‘the thick brown wrapping paper’. Where the human body is concerned, the description *tjock* ‘thick’ probably implies greater protection against external violence, for example in fights, at least for the inner organs. In some cases, factive motion towards the object referred to as *tjock* ‘thick’ comes from some other object or force and in other cases a potential factive motion exists, as for the example concerning bullet-proof glass. An interesting example is shown in (278).

- (278) Han hade dängt den stora bodnyckeln i den *tjocka bordsskivan* med sådan kraft att skivan sprack. (B76–77) ‘He had banged the large key to the shed on the thick table top with such force that the top cracked.’

In example (278), a table top is subject to an external force, namely a man throwing a key at it. Normally, the board would be strong enough to withstand such treatment but when the external force is extraordinary, the board cracks. Referring to the board as *tjock* ‘thick’ stresses the might of the man.

#### 8.5.4 The relationship of *hög* ‘high/tall’ and *tjock* ‘thick’

Related research agrees that THICK does not include information on orientation (see among others Lyons 1977 and Lang 1989). Many objects in the corpus described as *tjock* ‘thick’ have a canonical orientation. For most objects, the two major dimensions are canonically extended in the horizontal plane, such as mats and desktops. Their minimal dimension thus has an extension along the vertical axis. However, these objects are not referred to as *hög* ‘high’. Such examples are shown in (279)–(278).

- (279) Hennes fötter åstadkom grunda fördjupningar i en *tjock, vit matta* av en sorts skinn. (B76–77) ‘Her feet produced shallow indentations in a thick white mat made of some sort of hide.’

- (280) Anteckningarna som du stuckit in under armen glider ljudlöst ned på skrivbordet. Och sedan flyter tiden lättjefullt medan du tänker. Du sitter nu och stirrar på kanten av den *tjocka glasskivan* på skrivbordet. Djupblått som ingenstans hör hemma, som inte känner något avstånd mellan sina båda ytor. En oändlig grönskimrande blåhet. (B76–77) ‘The notes that you had put under your arm slide down on the desk without a sound. And then time goes lazily by while you are thinking. Now you are sitting staring at the edge of the thick glass desktop. A deep-blue that doesn’t belong anywhere, that feels

no distance between its two surfaces. An infinite green-shimmering blueness.’

As mentioned in Chapter 6 on *bred* ‘broad/wide’, Herskovits (1986) explores geometric descriptions in relation to spatial expressions. She studies places and suggests that some places are comprehended rather as two-dimensional surfaces, while others are regarded as three-dimensional objects. Her model is similar to Jackendoff and Landau (1991), and to Strzelecka’s (2003) analysis of perceptions of a mat, see section 8.5.2. The objects in examples (279)–(280) are probably comprehended as two-dimensional surface in the first place. When a third dimension is “added”, it will be referred to as *tjock* ‘thick’. In example (280), this third dimension is, somewhat paradoxically, hinted at by the phrase *som inte känner något avstånd mellan sina båda ytor* ‘that feels no distance between its two surfaces’ where two surfaces are mentioned (pointing at three-dimensionality, since otherwise, there would be only one surface), although this distance is not acknowledged (pointing at two-dimensionality).

*Hög* ‘high’ is not used to refer to these objects. The objects lack the appropriate qualities. As was noted in Chapter 5 in the discussion of *hög* ‘high/tall’, not all objects with a vertical extension are referred to as *hög* ‘high/tall’. Apart from the mat and the glass-board lacking core qualities, such as maximal vertical extension, and being the size of a human being (or bigger), they do not exhibit the qualities concerning a functional top, factive/fictive motion in the upward direction, or the demand that some energy is required to pass the object. The last two factors will be commented on in relation to examples (279) and (280).

Where factive/fictive motion is concerned, it has already been suggested in section 8.5.3 that external forces exert their power towards objects referred to as *tjock* ‘thick’. In example (279), an external force (shoes) is pressing part of the mat down. In example (280), no such external force is active. This means that factive motion may be present for *tjock* ‘thick’ but in a different form (from the outside, and not inherent in the object itself).

With regard to the quality linked to the requirement of some degree of energy to pass the object, it is interesting to note that *tjock* ‘thick’ also includes an energy component in that it includes the meaning of being resistant to outer forces. Because of this resistance a certain amount of energy is required to penetrate or break the object (see Vandeloise 1993 on *épais* ‘thick’). While *hög* ‘high’ includes a quality that ‘energy is required to pass the object’ in terms of lifting one’s feet/legs (as for *krocketbågar* ‘croquet hoops’, and *häckar* ‘hurdles’), *tjock* ‘thick’ includes instead a quality that ‘energy is required to get through the object’.

It was noted in section 8.2 that Lafrenz (1983) and Lang (1989) indicate that German *dick* ‘thick’ is in some contexts synonymous to (or may be used alternatively to) *hoch* ‘high’ and *tief* ‘deep’. The relationship between *tjock* ‘thick’ and *djup* ‘deep’ is dealt with in section 9.5.6 of Chapter 9,

where the main focus is on the antonymous relationship of *djup* ‘deep’ and *tunn* ‘thin’. In Lafrenz (1983) snow is prominent as it can be referred to both as *hoch* ‘high’ and *dick* ‘thick’. In Swedish, too, snow may be referred to as both *hög* ‘high’ and *tjock* ‘thick’. However, in the corpus, there are only examples of combinations of *hög* ‘high’ and *snödriva* ‘snowdrift’, see (281), while *tjock* ‘thick’ may combine with both *snö* ‘snow’ and *lager av snö* ‘layer of snow’, see (282)–(283). Possibly, the quality of being profiled against the background leads to the distinction between when snow is considered *hög* ‘high’ and when *tjock* ‘thick’, see Chapter 5 on *hög* ‘high/tall’.

(281) Han hade bestämt sig vid midnatt och smugit sig in i lagerrummet, tagit vad han kunde komma åt och gått ut från Stationen på ett ställe där en *hög snödriva* hjälpte honom att komma över ståltrådsstängslet. (B76–77) ‘He had decided by midnight and sneaked into the storeroom, taken what he could get his hands on and walked out from the station at a place where a high snowdrift helped him over the steel wire fence.’

(282) I Tjuolpas låg *snön tjock* och hårdpackad efter blåsveckorna i februari. (B80–81) ‘In Tjuolpas the snow was thick and compacted after the stormy weeks in February.’

(283) Uglük kunde urskilja en lodrät svart klippvägg med ett *tjockt lager* av snö på toppen. (B76–77) ‘Uglük could make out a black vertical rock face with a thick layer of snow on top.’

### 8.5.5 Embodiment thesis revisited

The stance that I adopt in the debate about embodiment is that objects outside the speaker’s own body may be as important for the understanding of concepts as the speaker’s own body is, see Chapter 3 (Theoretical assumptions). For dimensional adjectives, it is my belief that objects other than our bodies govern how these adjectives are used. Then, in a second phase, these adjectives are applied to our own body in analogy to the way in which external objects are described.

However, for *tjock* ‘thick’, as well as *smal* ‘thin’, which is discussed below in Chapter 8, it seems that the adjectives are so strongly associated with the human body that my standpoint must be modified in these particular cases. It cannot be ruled out that the way *tjock* ‘thick’, is used about the human body influences how external objects are described.

I believe that a strict interpretation of the embodiment thesis would mean that *tjock* ‘thick/fat’ is viewed as the experience of the whole body being big/fat/thick. A somewhat looser interpretation could mean that the concept is comprehended as touching or gripping flesh, either one’s own flesh or somebody else’s. In my approach I lean rather to this second interpretation. On the basis of my own experience alone, I associate heaviness to a feeling

that is totally embodied (in a stricter sense), experienced from the inside, emanating from some kind of core. Having been both pregnant and chubby in the past, for me the concept of thickness is linked more with being able or not being able to button up my jeans, feeling that clothes are too tight, experiences which involve some action outside my body, even if performed by my own limbs, such as arms or hands. For people who have never felt fat, it can be assumed that *tjock* ‘thick/fat’ is associated rather with someone else’s body. In such cases, the acts of grasping, hugging and squeezing somebody else’s body is probably more prominent.

Therefore, I argue that it is still possible to embrace an extended version of the embodiment thesis, in accordance with Sinha and Jensen de López (2000) for instance.

### 8.5.6 A complex category

Vandeloise (1993) writes that resistance dominates the dimensional meaning of French *épais* ‘thick’, while a dimensional meaning of German *dick* ‘thick’ is rejected in Weydt and Schlieben-Lange (1998), who claim that the adjective means ‘difficult to get through’. Vandeloise therefore opposes the idea that the minimal dimension forms part of the meaning. I would like to explain Vandeloise’s (1993) example of boards, see section 8.2 Figure 21, in the following way: the reason why the dimension *y* is called *épais* ‘thick’ might be due to the fact that all the boards supporting the ceiling form a layer of boards, and that the dimension called *épais* ‘thick’ is possibly a dimension of this layer, not of an individual board. In Chapter 9 on *smal* ‘thin’, *tunn* ‘thin’ and *trång* ‘narrow’, I have examples where tear-drops and drops of sweat form a surface or a layer on a person’s cheek, and the liquid is not treated as individual drops each tracing its own path but as a two-dimensional area, see section 9.9.5.

I regard *tjock* ‘thick’ as polysemous, which can be motivated by the fact that utterances such as (284)–(287) sound odd.

(284) ?*Lasse är tjockare än brädan.* ‘Lasse is thicker than the board.’

(285) ?*Lasse är tjockare än soppan.* ‘Lasse is thicker than the soup.’

(286) ?*Snön är tjockare än väggen.* ‘The snow is thicker than the wall.’

(287) ?*Mitt hår är tjockare än soppa.* ‘My hair is thicker than soup’

The complex category can be described as a network model, see Figure 23. I consider the use of *tjock* ‘thick’ to describe an object with a cylindrical shape central. In this case, the prototypical use refers to a human, such as *tjock gubbe* ‘fat old man’. Here minimal dimension is one of the meanings included. The potential of being grasped (by the hand or by the arms) is present too although social norms prevent us from grasping other human beings in the way we grasp inanimate objects so I suggest instead that the

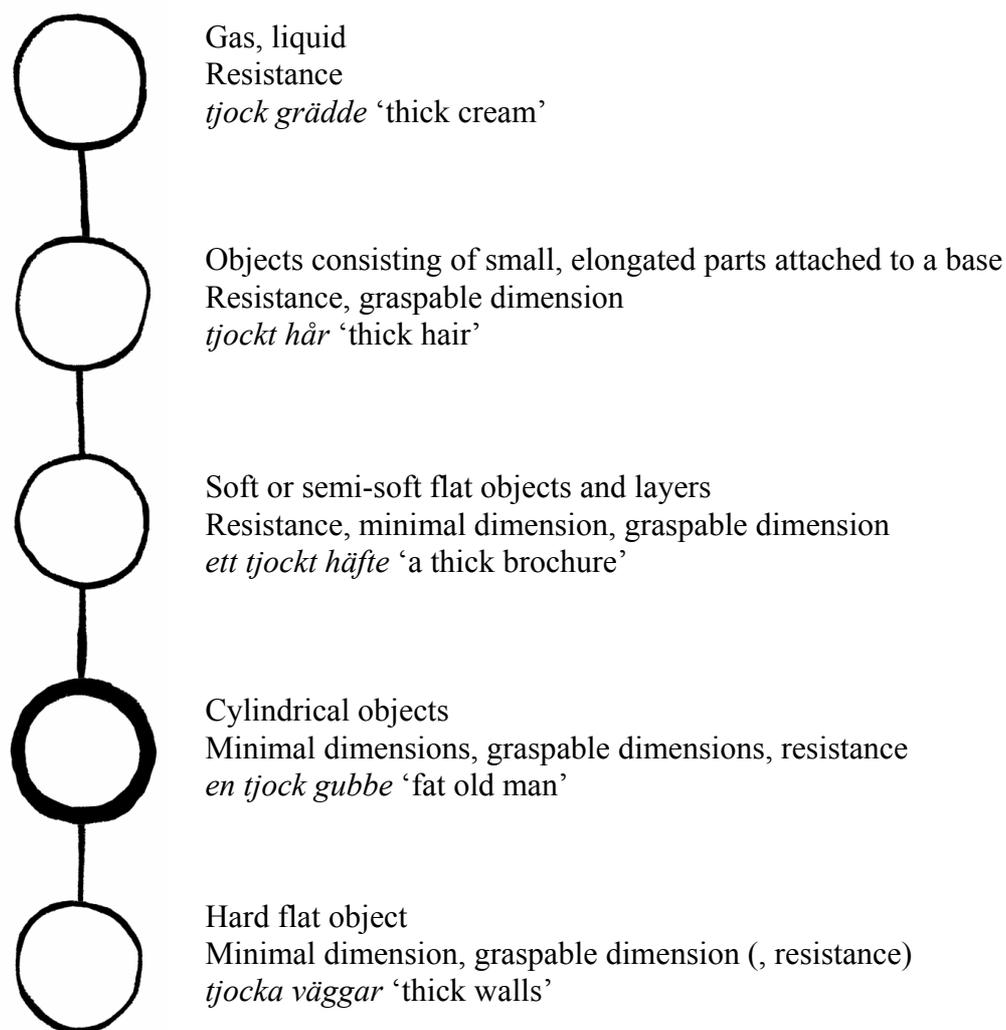


Figure 23. Network model of the complex category of *tjock* ‘thick’

act of grasping is complemented with a process related to grasping, see section 8.5.2. The meaning of resistance is present, too, but probably in a slightly weaker form than in other cases. The simple category corresponding to the case includes uses concerning inanimate objects such as *tjock pelare* ‘thick pillar’ and *tjock korv* ‘thick sausage’. A human being may be compared to a pillar, as in *Lasse är tjockare än den där pelaren* ‘Lasse is as thick/fat as that pillar’, however, a comparison to a sausage seems somewhat odd, except when body parts are regarded, such as *fingrarna var tjocka som prinskorvar* ‘the fingers were thick as chipolata sausages’. In the elicitation test, nouns referring to cylindrical objects constitute a majority. This group is the largest group in the corpus.

There are at least four more cases in the complex category. One concerns *tjock* ‘thick’ describing soft or semi-soft flat objects and layers. This case corresponds to a simple category which includes uses such as *tjockt häfte* ‘thick brochure’, *tjock hud* ‘thick skin’, *tjock snö* ‘thick snow’ and *tjock filt* ‘thick blanket’. The category is rather heterogeneous and many various uses appear to be close to the core. However, the prototypical uses seem to

involve all three qualities, so that *tjockt omslagspapper* ‘thick wrapping paper’ involving both resistance (from which protection against outer forces may be derived), minimal dimension and graspable dimension, is close to the core, while *tjock snö* ‘thick snow’, which has no graspable dimension, is not. In this case, which I have labelled Soft and semi-soft flat objects and layers, *tjock* ‘thick’ involves the sense of minimal dimension, the sense of a graspable dimension (except for layers) and the sense of resistance. In the elicitation test, 2 nouns (of 42) referred to such objects (*bomull* ‘cotton’ and *hinna* ‘coat’). In the corpus, nouns belonging to this group form the second largest group. In the model given in Figure 23, I have linked this case Soft and semi-soft flat objects and layers to the central case. I consider this case to be a strong one, even though it not as prominent as the central case.

Linked to the Soft and semi-soft flat objects and layers case is one I have labelled Objects consisting of small elongated parts attached to a base. Here, *tjock* ‘thick’ describes hair, but also grass and plants. In Chapter 10 on *djup* ‘deep’, objects like this have been classified as a subgroup to loose solid substances, see section 10.4.6.1. This is more relevant in relation to *djup* ‘deep’, which describes the vertical dimension used with objects from this group. The adjective *djup* ‘deep’ in *djup snö* ‘deep snow’ and *djupt gräs* ‘deep grass’ refers to the same vertical dimension, unlike the adjective *tjock* ‘thick’ in *tjock snö* ‘thick snow’ and *tjockt gräs* ‘thick grass’. *Tjock* ‘thick’ in relation to snow measures a dimension while *tjock* ‘thick’ in relation to grass describes degree of resistance rather than a dimension. In the case of *tjockt gräs* ‘thick grass’ *tjock* ‘thick’ invokes not only resistance, but also, graspability. The notion of dimension is slightly misleading, however. Rather, grasping is what is involved. This is particularly noticeable for hair, since thickness of hair is a quality experienced through touch, especially when holding locks of (longer) hair or running the fingers through (shorter) hair. The aspect of minimal dimension is missing. There were no nouns of this type in the elicitation test. In the corpus, the group is smaller than both the Cylindrical objects and Soft or semi-soft flat objects and layers cases. The number of the corpus occurrences is at approximately the same as those associated with the two remaining cases, namely Gases and liquids and Hard flat objects.

I regard the two remaining cases as non-central. To start with Gases and liquids, the senses of graspable dimension as well as minimal dimension are missing. Uses such as *tjock grädde* ‘thick cream’, *tjock rök* ‘thick smoke’, *tjock luft* ‘thick air’, and *tjock dimma* ‘thick fog’ can be regarded as prototypical in the simple category, corresponding to the case. *Grädde* ‘cream’ occurred twice in the elicitation test as the only noun referring to liquid while it occurs 6 times (out of a total of 25 concerning liquid) in the corpus. Where gases are concerned, the only noun with this kind of reference in the elicitation test is *dimma* ‘fog’, which occurred twice. The corpus provides 19 instances of *tjock* ‘thick’ combining with *rök* ‘smoke’ (out of 49 occurrences concerning gases in all), while 18 of the 49 instances

involved *tjock luft* ‘thick air’. For Gases and liquids resistance is the only element of the meaning.

The last case, Hard flat objects, was not represented in the elicitation test. In this case, *tjock* ‘thick’ involves the sense of minimal dimension. The sense of graspable dimension is present although the prototypical uses of the simple category that corresponds to the case probably involve objects that are not easily moved, such as *tjock mur* ‘thick wall’ and *tjocka väggar* ‘thick walls’. The sense of resistance is weaker than in the other cases.

## 8.6 Summary of *tjock* ‘thick’

It is suggested that the spatial senses of *tjock* ‘thick’ form a complex category that can be described as a network model. The central case is a use in which *tjock* ‘thick’ combines with a noun referring to an object with the form of cylinder. In this case, the prototypical use refers to a human being, such as *tjock gubbe* ‘fat old man’. *Tjock* ‘thick’ describes the minimal dimensions of the object, which can be idealised to a cylinder. It may also describe the dimension grasped or held by fingers, hand or arms, such as in a hug or when shaking hands. It may also describe resistance towards outer forces, such as kinetic energy. In all, there are five cases in the network model. As has already been mentioned, the central case describes the human body, but also body parts, such as *tjocka armar* ‘fat arms’ and objects which may be idealised to a cylinder, such as *tjock spik* ‘thick nail’. Another case describes hard, flat objects, such as *tjock bräda* ‘thick’ board. A third case describes soft and semi-soft flat objects and layers, such as *tjock matta* ‘thick mat’ or *tjock snö* ‘thick snow’. A fourth case describes objects consisting of small, elongated parts, attached to a base, like hair and grass, where little dimensional information is encoded, such as *tjockt hår* ‘thick hair’. The last case describes gases and liquids. Here, too, dimensional information is absent. Examples are *tjock grädde* ‘thick cream’ and *tjock rök* ‘thick smoke’. Thus, each case involves to a greater or lesser degree the three qualities of minimal dimension, graspable dimension and resistance – although sometimes one may be lacking.

The suggestion, that the dimension indicated as *tjock* ‘thick’ is the one grasped links the two separate qualities of minimal dimension and degree of resistance. The act of grasping an object by its minimal dimension provides tactile information about the resistance of the object. *Tjock* ‘thick’ is therefore considered more closely related to sensation than to vision.

## 9 The semantics of *smal* ‘narrow/thin’, *tunn* ‘thin’ and *trång* ‘narrow’

The purpose of this chapter is to give a thorough and detailed account of the meaning of the Swedish dimensional adjectives *smal* ‘narrow/thin’, *tunn* ‘thin’ and *trång* ‘narrow’. *Smal* ‘narrow/thin’ is commonly regarded as antonymous to both *bred* ‘broad/wide’, discussed in Chapter 6, and *tjock* ‘thick’, which was dealt with in the previous chapter. This relationship to two adjectives justifies devoting a separate chapter to *smal* ‘narrow/thin’ which is not connected to either of them specifically.

In meaning, both *tunn* ‘thin’ and *trång* ‘narrow’ appear to be close to *smal* ‘narrow/thin’. Neither *tunn* ‘thin’ nor *trång* ‘narrow’ can be adequately discussed prior to *smal* ‘narrow/thin’. Therefore, the analysis of *tunn* ‘thin’ and *trång* ‘narrow’ will be presented after *smal* ‘narrow/thin’ has been treated. *Tunn* ‘thin’ is commonly regarded as antonymous with *tjock* ‘thick’ (see Chapter 8 on *tjock* ‘thick’), while *trång* ‘narrow’ is suggested as the antonym of *vid* ‘broad’ (see Chapter 7 on *vid* ‘broad’).

*Smal* ‘narrow/thin’ indicates a dimension that fails to attain a norm, as do *tunn* ‘thin’ and *trång* ‘narrow’. My study makes no attempt to define the dimensional aspects of this norm. In terms of markedness, the adjectives have a marked sense.

In this chapter I will discuss the semantics of the adjectives *smal* ‘narrow/thin’ and *trång* ‘narrow’ with the help of three concepts: path, passage, and container. Support is provided for the findings of related research on the German dimensional adjectives *schmal* ‘narrow’ and *eng* ‘narrow’ on how many dimensions we attribute to the objects they describe (Lang 1989). The pairs *bred-smal* ‘broad/wide–narrow/thin’ and *vid-trång* ‘broad–narrow’ display only partial antonymy with asymmetries regarding proportions (*bred-smal* ‘broad/wide–narrow/thin’) and function (*vid-trång* ‘broad–narrow’). The pair *tjock-tunn* ‘thick–thin’ exhibits virtually full antonymy.

As was the case for *tjock* ‘thick’, *smal* ‘thin’ is associated with nouns that refer to the human body and body parts. This association is not as strong as for *tjock* ‘thick’ but strong enough to require its inclusion in the analysis. Therefore, the data encompass uses about the animate objects.

### 9.1 *Smal* ‘narrow/thin’ in the dictionaries

According to SAOB, there are two main spatial senses of *smal* ‘narrow/thin’. The first one indicates no great extension from side to side. The ant-

onym is *bred* ‘broad/wide’. *Smal* ‘narrow/thin’ is also used about streets and front-doors etc. to imply lack of space that approaches or even coincides with the sense of *trång* ‘narrow’. Furthermore, *tunn* ‘thin’ is offered as a synonym of *smal* ‘thin’. Collocations such as *ett smalt bräde* ‘a narrow board’, *ett långt och smalt soffbord* ‘a long, narrow coffee table’, *ett smalt ljusknippe* ‘a thin pencil of light’, *en smal väg* ‘a narrow road’, *ett smalt sund* ‘a narrow strait’ are given, and the parts of the human body cited in the dictionary are *ett smalt ansikte* ‘a narrow face’, *smala fötter* ‘narrow feet’ and *smala axlar* ‘narrow shoulders’. The second main sense concerns objects having a small circumference. Here, *tjock* ‘thick/fat’ or *vid* ‘broad’ is the antonym. Examples are *hon var smal som en geting* ‘she was thin as a wasp’, *en smal korv med bröd* ‘a thin sausage with bread’ and *ett smalt pipskaft* ‘a thin pipe-stem’.

The article in *Illustrerad svensk ordbok* is divided into two subsections. The first defines *smal* ‘narrow/thin’ as “(som är) föga bred el. vid” ‘(which is) scarcely broad/wide or broad’ and it then gives two antonyms, both *bred* ‘broad/wide’ and *vid* ‘broad’. As in SAOB, *trång* ‘narrow’ is mentioned as a synonym. Collocations such as *en smal bräda* ‘a narrow board’, *en smal trappa* ‘a narrow stair-case’ and *smal port* ‘narrow front-door’ are given. The second subsection describes *smal* ‘thin’ as synonymous to *tunn* ‘thin’, *slank* ‘slender’, *spenslig* ‘slim’ and *finlemmad* ‘small boned’. Here, the antonym is *tjock* ‘thick/fat’. Collocations concerning the human body are given, such as *smala ben* ‘thin legs’.

*Nusvensk ordbok* starts the article by stating that the different senses of *smal* ‘narrow/thin’ may be difficult to distinguish from each other. The article accounts for two main senses. The first is opposed to *bred* ‘broad/wide’ or to *vid* ‘broad’ (the latter within brackets). Here, examples such as *smalare men plogad väg* ‘a road, which is narrower, but cleared of snow’ and *en smal ingång* ‘a narrow entrance’ are found. Body-parts are also included in some of the collocations, such as *smala ögon* ‘narrow eyes’. The second main-sense is opposed to *tjock* ‘thick/fat’ or *fyllig* ‘plump’. Examples mainly concern body-parts, such as *vad du blivit smal på sista tiden* ‘you have become so thin lately’, but *vid smalaste ändan* ‘at the narrowest end’ and *nålsmala minareter* ‘needle-thin minarets’ are also given. No distinction is made between the synonyms for the two main senses and they include *trång* ‘narrow’ and *tunn* ‘thin’.

NEO, too, distinguishes two spatial main senses. The first is opposed to *bred* ‘broad/wide’. Collocations such as *en smal cykelfil* ‘a narrow cycle lane’ and *en smal garderob* ‘a narrow closet’ are given. The second main sense is opposed to *tjock* ‘thick/fat’. According to the dictionary, this usually refers to human beings or body-parts, such as *en smal tonårspojke* ‘a thin adolescent boy’.

Finally, *Bonniers svenska ordbok* explains *smal* ‘narrow/thin’ as “inte bred; inte tjock” ‘not broad/wide, not thick’.

## 9.2 *Tunn* ‘thin’ in the dictionaries

SAOB has not published its article on *tunn* ‘thin’ yet.

Illustrerad svensk ordbok discerns four separate sense of *tunn* ‘thin’. The first is defined as having no great thickness. Examples such as *ett tunt papper* ‘a thin piece of paper’ and *en tunn hinna* ‘a thin film’ are given. The second sense has (among others) the synonyms *smal* ‘thin’, *smärt* ‘slender’, and *fin* ‘thin’, and the collocations given are *tunna stänger* ‘thin poles’ and *spindelnätets fina trådar* ‘the thin threads of the cobweb’. The third sense concerns the consistency of fluids and means having low viscosity or being diluted, such as *tunn soppa* ‘thin soup’. The fourth sense has the synonym *gles* ‘thin/sparse’, such as *tunt hår* ‘thin hair’.

Nusvensk ordbok has a similar presentation compared to Illustrerad svensk ordbok, the only difference being that *tunn* referring to animate objects is listed as a separate sense. The dictionary is more detailed and there are therefore more collocations, for example *gamla, tunna mynt* ‘old, thin coins’ and *tunna väggar* ‘thin walls’ for the first sense, *tunn rev* ‘thin fishing-line’ for the second sense, *tunn och blaskig skummjolk* ‘thin and watery skimmed milk’ for the third sense and *den tunna blå vårskogen* ‘the open blue spring forest’ for the last spatial sense.

NEO discerns two main senses. The first one is defined as ‘which has no great thickness’. Examples are *det tunna papperet* ‘the thin piece of paper’ and *tunna pannkakor* ‘thin pancakes’. A nuance of this sense is when the adjective is used about an object with a small cross-section, such as *en tunn sytråd* ‘a thin cotton thread’. The second sense is described as ‘which is scattered and includes a small amount’, such as *hans tunna hår* ‘his thin hair’, *en tunn rök* ‘thin smoke’ (for the latter, the object has low density), and *tunt kaffe* ‘thin coffee’ (explained as the object having low viscosity or being diluted).

Finally, Bonniers svenska ordbok describes *tunn* ‘thin’ as ‘having small thickness’ (*ett tunt papper* ‘thin piece of paper’), as *smal* ‘thin’ and *fin* ‘thin’ (*en tunn tråd* ‘a thin thread’), as diluted or of low viscosity (*tunn välling* ‘thin gruel’ or as *gles* ‘thin’ (*tunt hår* ‘thin hair’)). Bonniers svenska ordbok therefore follows the same pattern as Illustrerad svensk ordbok and Nusvensk ordbok.

## 9.3 *Trång* ‘narrow’ in the dictionaries

SAOB has not yet published its article on *trång* ‘narrow’.

Illustrerad svensk ordbok describes the meaning of *trång* ‘narrow’ as not sufficiently big, and gives the synonyms *snäv* ‘narrow’, *knapp* ‘scant(y)’, *smal* ‘narrow/thin’ and *liten* ‘small’. Collocations concerning spatial uses are *ett trångt håll* ‘a narrow hole’ and *ett trångt rum* ‘a narrow room’.

According to Nusvensk ordbok, *trång* ‘narrow’ is the antonym of *vid* ‘broad’, *rymlig* ‘spacious’ and sometimes *bred* ‘broad/wide’. Several col-

locations are given and grouped. The first group includes examples such as *trånga, slingrande gränder* ‘narrow, winding alleys’, *en trång dal* ‘a narrow valley’, *en trång farled* ‘a narrow, navigable passage’, *en trång trappa* ‘a narrow staircase’, *mitt vardagsrums trånga golvyta* ‘the narrow floor space of my living room’. The second group concerns space in the presence of other people, such as *I Lipce är det trångt, folket sitter på varann* ‘It’s crowded in Lipce, people sit on top of each other’. The third and fourth groups concern accommodation. Two examples are found: *Och du vet hur trångt vi har, vi bor i alla rum* ‘And you know how cramped we are, we use all the rooms for sleeping’ and *Det lilla hemmet hade blivit allt trängre* ‘The small home had become more and more cramped’. Finally, two groups where *trång* ‘narrow’ is used adverbially can be found. In the first group, the example *bo trångt* (lit. ‘live narrowly’) ‘being accommodated in a very small space’ is included, and in the other group, the example *Kvinnorna makade sig trängre tillsammans* ‘The women moved closer together’ is included.

NEO defines *trång* ‘narrow’ as encompassing a space, which is somewhat too small for somebody/something to have enough room. In this sense, *trång* ‘narrow’ is antonymous with *rymligt* ‘spacious’. Examples are *en trång lägenhet* ‘a cramped flat’, *trånga gränder* ‘narrow alleys’ and *det var trångt på dansgolvet* ‘the dance floor was crowded’. NEO gives a nuance of this sense by the example *det var trångt om plats vid bordet* (lit. ‘it was narrow about places at the table’) ‘there were few seats available at the table’.

Finally, Bonniers svenska ordbok describes *trång* ‘narrow’ as ‘not sufficiently big or spacious’ and the examples it gives are *en trång gång* ‘a narrow passage’ and *sitta trångt i soffan* (lit. ‘sit narrowly in the couch’) ‘sit close to each other in the couch’.

## 9.4 Related research in the past on NARROW/THIN

This section concerns research that may be related to any of the Swedish adjectives *smal* ‘narrow/thin’, *tunn* ‘thin’ and *trång* ‘narrow’.

Most of the studies concerning BROAD, WIDE, and THICK do not discuss the antonyms of these adjectives. In some studies, the semantic description covers both antonyms, assuming no differences between the antonymous adjectives (Greimas 1966, Bierwisch 1967, Clark 1973, Zubin and Choi 1984 to some extent, Wienold and Rohmer 1997, Geckeler 1997, Weydt and Schlieben-Lange 1998, Linde-Usiekiewicz 2000, 2002). In other studies antonyms are not mentioned at all (Fillmore 1997, Vandeloise 1988, 1993, Spang-Hanssen 1990, Galeote et al. 1999, Lang 2001, Athanasiadou 2001).

Lyons (1977:702) points out that while a *street* is described as *long* and *narrow* a *line* is described rather as *long* and *thin* as it is approximated to a geometrical, one-dimensional line.

According to Lafrenz (1983), the antonym of German *breit* ‘wide’ is *schmal* ‘narrow’, but in some contexts, *eng* ‘narrow’ can be used, as in *enge Straße* ‘narrow street’. *Eng* ‘narrow’ characterises an object, which has inadequate space for a certain purpose. Furthermore, the antonym of *weit* ‘wide’ is *eng* ‘narrow’, and this adjective may only refer to nouns with a negative aspect (“Hohlraum”) and not to nouns referring to surfaces. When describing a cavity, *eng* ‘narrow’ may refer to one or two dimensions, while *weit* ‘wide’ must refer to two dimensions (*eine enge Schlucht* – *\*eine weite Schlucht* ‘a narrow ravine – a wide ravine). For nouns referring to surfaces on the other hand, *klein* ‘small’ is preferred. Lafrenz points out that some nouns, referring to surfaces do not collocate with an adjective denoting no great extent, such as *Meer* ‘sea’, *Prairie* ‘prairie’ and *Wüste* ‘desert’, as these are assumed to cover a wide area. The adjective *dick* ‘thick’ has the antonym *dünn* ‘thin’, as in *eine dicke Stange* ‘a thin pole’. *Dünn* ‘thin’ may describe one or two dimensions, but never three. Therefore, the collocation *eine dicke Eisenkugel* ‘a thick iron-ball’ is opposed to *eine kleine Eisenkugel* ‘a small iron-ball’. Concerning the human body, *dick* ‘fat’ has two antonyms: *dünn* ‘thin’ as in *dünne Beine* ‘thin legs’ and *schmal* ‘thin’ as in *ein schmaler Hals* ‘a thin neck’. The adjective *schlank* ‘thin’ may describe the body too and includes an aesthetic judgement.

Rakhilina (2000) mentions that the phenomenon noted by Lafrenz regarding surfaces applies for Russian *uzkij* ‘narrow’, too. While its antonym *širokij* ‘broad/wide’ may describe unlimited areas, such as steppe, *uzkij* ‘narrow’ cannot do so.

Durrell (1988) states that *eng* ‘narrow’ is traditionally considered the antonym of *weit* ‘wide’, but lists a number of constraints where one adjective of the pair can combine with a noun but not the other, such as for surfaces *ein weites Feld* ‘a wide field’ – *ein kleines (\*enges) Feld* ‘a small (narrow) field’. Like *weit* ‘wide’, *eng* ‘narrow’ refers to one or more dimensions. Durrell makes a comparison with the relationship between *breit* ‘wide’ and *weit* ‘wide’, and claims that nouns that combine with *eng* ‘narrow’ can usually do so with *schmal* ‘narrow’ as well, but not the other way around. Moving on to the English adjectives, Durrell states that both *broad* and *wide* take *narrow* as their antonyms. The differences between the two adjectives are, as it were, annulled in their shared antonym. Durrell speculates that this phenomenon might be due to the reference by the adjective *narrow* to a point close to a zero-point on the scale where the differences of *broad* and *wide* are no longer noticeable nor relevant. He draws an analogy to how it is not important in what dimension an object described as *klein* ‘small’ is really small.

Lang (1989) points out that German *schmale Straße* ‘narrow street’ is perceived as a two-dimensional object, while *enge Straße* ‘narrow road’ is viewed as a three-dimensional object.

Stolz (1996) describes the antonymous relationship between Yucatec Maya dimensional adjectives. The positive adjectives concerning WIDTH and THICKNESS are *píim* ‘thick regarding cylinders’, *polok* ‘thick regarding flat objects’, and *kòoch* ‘wide’. For *píim* ‘thick regarding cylinders’, the issue of antonyms is complicated. The adjective has two antonyms: *hay* ‘thin’ and *hayáach* ‘shallow’ (see section 10.6.2 in Chapter 10 on *djup* ‘deep’). *Hay* ‘thin’ can describe all the cases where *píim* ‘thin’ can be used but it also has other applications. It can describe a two-dimensional rectangular surface, and it can describe a three-dimensional object. When describing the latter, orientational information is encoded. The short axis of the object is vertical, and the maximal axis is horizontal. Here, *píim* ‘thin’ cannot be used as the antonym. When used like this, *hay* ‘thin’ more closely resembles HIGH (see also section 5.2.1 in Chapter 5 on *hög* ‘high’). (Stolz 1996:215–216.) The antonym of *polok* ‘thick’ is *bek’ech* ‘thin’. *Bek’ech* ‘thin’ behaves like *polok* ‘thick’, but it also has another use. The adjective can describe two-dimensional rectangular surfaces of three-dimensional objects. The short axis should be oriented horizontally, while the maximal axis should be vertical. In this respect, *bek’ech* ‘thin’ and *polok* ‘thick’ are not antonyms (a parallel situation to *píim* ‘thick’ and *hay* ‘thin’ when *hay* ‘thin’ refers to a vertical dimension of a small extent) (Stolz 1996:217–218). The antonym of *kòoch* ‘wide’ is *níut* ‘narrow’. It behaves similarly to *kòoch* ‘wide’. (Stolz 1996:227–232.)

## 9.5 Data

There seem to be strong associations between the adjective *smal* ‘narrow/thin’ and the human body. In the elicitation test, 17 out of 34 nouns, i.e. half of the lexical items given, referred to the human body or to body parts. *Modell* ‘model’ was suggested 7 times and *midja* ‘waist’ 3 times. In the corpus, 412 occurrences concern spatial, non-metaphorical uses about animate objects. This can be compared to 489 occurrences of spatial, non-metaphorical uses about inanimate objects (clothes excluded). This means that scarcely half of the occurrences of *smal* ‘narrow/thin’ in the corpus refer to the human body. (Uses about animals can be found, but are very rare.)

Therefore, the data regarding *smal* ‘narrow/thin’ have been extended to incorporate the human body, body parts, animals and animals’ body parts. In total, the corpus includes 901 occurrences of *smal* ‘narrow/thin’ combining with nouns referring to animate or inanimate objects. Clothes have been excluded, while animals and their body parts have been included

although they form a minute and presumably not particularly interesting group. They have been included for the sake of consistency.

## 9.6 Claims concerning *smal* ‘narrow/thin’

*Smal* ‘narrow/thin’ in its spatial, non-metaphorical sense can be described as a complex category, corresponding to a network model. Instead of one central case, two cases are considered to be equally strong. *Smal* ‘narrow/thin’:

- Refers to the left-right dimension, in relation to a user.
- Refers to the smaller dimension of a two-dimensional object or to the smaller horizontal dimension of a three-dimensional object.
- Indicates no great extension in relation to a certain norm.
- Refers to one or two dimension(s), not being the maximal dimension(s) of the object.
- Refers to outer or inner measurements

*Smal* ‘narrow/thin’ preferably combines with nouns referring to

- Human beings.
- Objects, which are paths or are associated by similar shape to paths.

Some referent classes are so prototypical that they are comprehended as being *smal* ‘narrow/thin’ themselves. Such referent classes are *modell* ‘model’ and *stig* ‘path’, where *smal modell* ‘thin model’ and *smal stig* ‘narrow path’ may be comprehended as synonymous to *modell* ‘model’ and *stig* ‘path’.

## 9.7 Results and discussion on *smal* ‘narrow/thin’

In this section, I will discuss the semantics of *smal* ‘narrow/thin’ by taking three aspects into account: function, shape and orientation. I will start by describing *smal* ‘narrow/thin’ as a complex category.

### 9.7.1 A complex category

*Smal* ‘narrow/thin’ is considered a complex category which can be described as a network model. There are four cases in the network. None is central but two are equally strong instead. One case functions as a bridge between the two strong cases.

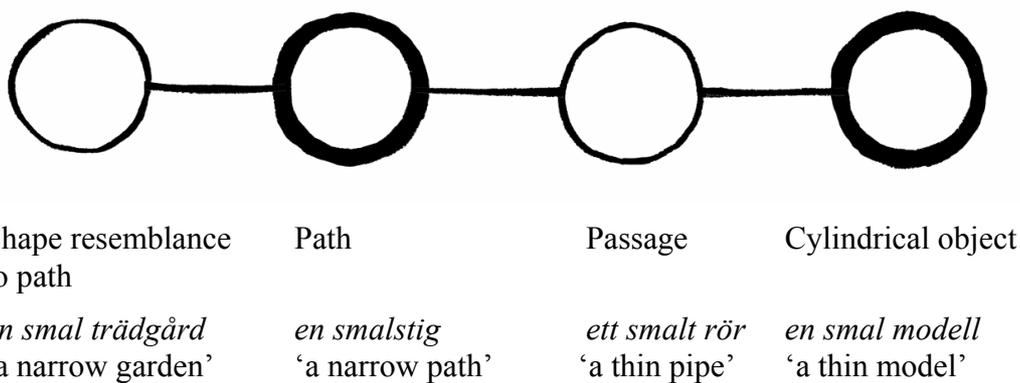


Figure 24. Network model of the complex category *smal* 'narrow/thin'

One strong case is *smal* 'narrow/thin' describing objects functioning as paths, such as *en smal stig* 'a narrow path'. The other strong case is *smal* 'thin' describing cylindrical objects, such as *en smal stång* 'a thin pole' and *en smal modell* 'a thin model'. In shape such objects reveal a resemblance to cylindrical passages. There is an intermediate case in which *smal* 'narrow/thin' describes passages, both cylindrical and non-cylindrical, such as *ett smalt rör* 'a thin pipe' and *ett smalt fönster* 'a thin window'. The remaining case is linked to the path case. This involves *smal* 'narrow/thin' describing objects which resemble paths in shape, such as *en smal trädgård* 'a narrow garden'. The network model is shown in Figure 24.

Thus, two cases are approximately equally strong. I do not rank their strength in relation to each other. The results from the elicitation test, corpus frequency and the ranking in the dictionaries justify the attribution of equal importance to the two groups.

## 9.7.2 Function

To begin with, the function of inanimate objects will be discussed. Animate objects will then be dealt with.

In the elicitation test, 12 of the 34 nouns referred to inanimate objects that function as paths or passages. I have made no distinction between paths and passages when dealing with the results of the elicitation test, because this is difficult for decontextualised nouns.

The path function predominates among the inanimate objects described as *smal* 'narrow/thin' in the corpus. Of 901 instances, 288 have been judged as referring to objects that function as paths, see (288)–(289). Only inanimate objects have been eligible for this group.

(288) Vägen Landsvägen mellan Bergviken och Burträsk's samhälle var en del av den äldsta vägen mellan Skellefteå och Burträsk. Den var *smal*, krokig och backig. (B76–77) 'The Landsvägen highway between Bergviken and the

village of Burträsk was part of the oldest road between Skellefteå and Burträsk. It was narrow, winding and hilly.’

- (289) Det hade stigit över yttertrappan, sipprade in under dörren, slingrade sig över trägolvet, förenades till små pölar, och rann vidare som *smala rännilar*. (B76–77) ‘It had crossed the front doorstep, trickled under the door, snaked across the wooden floor, formed small puddles and then flowed onwards like narrow rills.’

There are indications that *smal* ‘narrow/thin’, even when describing objects with a very small extension in the smaller horizontal dimension, like the object referred to as *rännil* ‘rill’ in example (289), retains something of its quality of two-dimensionality rather than being perceived as one-dimensional. This is further discussed in relation to *tunn* ‘thin’, which may also describe an object such as *rännil* ‘rill’, see section 9.9.5.

A three-dimensional object may also form a path:

- (290) Han stapplade bort och försvann in genom en *smal valvgång* vid sidan av gatan. (B76–77) ‘He stumbled away and disappeared through a narrow archway by the side of the street.’

The object referred to as *vägen* ‘the road’ in example (288) and the object referred to as *valvgång* ‘archway’ in example (290) are paths for human beings. The object referred to as *rännil* ‘rill’ in example (289), on the other hand, is formed by water, and functions as a path for the water. In another example, the object, referred to as *smal* ‘thin’, is the result of motion:

- (291) Han gjorde det första snittet, en lång ren *linje* så *smal* att det verkade som om pappen inte ens hade märkts förrän han lyfte bort den bit som skulle kasseras. (B76–77) ‘He made the first cut, a long clean line so fine that it seemed as if the cardboard had not even been marked, until he lifted away the piece that was going to be discarded.’

Examples (289)–(291) involve factive motion. There are also examples where fictive motion takes place. One is shown in (292).

- (292) En *smal solstråle*, glödande röd, trängde genom horisontens moln och träffade toppen av päronträdetets krona. (B76–77) ‘A narrow sunbeam, flaming red, penetrated the clouds on the horizon and struck the top of the crown of the pear tree.’

In (292), fictive motion is attributed to the sunbeam.

The second largest group of inanimate objects comprises 47 (out of 901) members. Here, *smal* ‘narrow/thin’ combines with nouns referring to objects functioning as passages:

- (293) *Öppningen* var hög, men den var i gengäld *smal* – knappt mansbred – och för att skona sin skadade axel trängde han sig in i den i sidled med den högra armen först. (B76–77) ‘The opening was high but narrow – barely the width of a man – and in order to spare his injured shoulder he squeezed through sideways right arm first.’

In the passage group, 16 examples concern windows which have been counted here as passages:

(294) Att hålla armen sträckt och kika upp och in genom öppningen i det *smala fönstret* var fruktansvärt arbetsamt. (B76–77) ‘To keep your arm extended and look up and in through the aperture in the narrow window was terribly exhausting.’

(295) Mellan Torshög och Berg låg Rya, klätt med rödstruken locklistpanel och med *smala fönster* högt uppe under taksägget. (B76–77) ‘Between Torshög and Berg lay Rya, dressed in red painted slats and with narrow windows high up under the eaves.’

In (294)–(295), as passages these apertures are very short. The passage may, however, be longer:

(296) I handen håller han en liten gummiboll, som är förbunden med kamerans slutare genom en *smal slang*. (B80–81) ‘In his hand he holds a small rubber ball, which is connected to the camera’s shutter by a thin tube.’

In (296), air passes through a tube. The border between a three-dimensional object functioning as a path, like the hall in (290), and a three-dimensional object functioning as a passage, like the tube in (296), is fuzzy. I have considered objects where the focus is on the bottom surface as paths. These objects may be perceived as two-dimensional surfaces, or, as virtually two-dimensional. When the focus is on the entire interior volume of an object I have regarded them as functioning as (or more or less functioning as) passages. Openings are always considered passages.

Of a total of 901 instances of the usage of *smal* ‘narrow/thin’, 335 involve combination with nouns referring to inanimate objects that function as paths or passages. It has already been pointed out that 12 out of 34 nouns in the elicitation test referred to objects functioning as paths or passages. Thus, it seems that the path function is strongly associated with the semantics of *smal* ‘narrow/thin’, as is the case for *bred* ‘broad/wide’.

It is not my intention to discuss the function of the human body or any specific body parts. I believe that this functional perspective may be invoked in that an object has a certain function for its user, in most cases a human being. One’s own body, that is the body of the user definitely possesses usefulness for many different purposes but this functionality cannot be equated with the functionality of external objects. A road may serve as a path for human beings to walk on. Although the body, or rather the legs, could be described as fulfilling the purpose of transporting their owner, I regard this function as being on another level. The point of departure for my analysis is the human and therefore is the beneficiary/victim, of the functions of other objects.

It could be argued that one human being might use another human being for certain purposes. Then, the other human being may have function. I have not incorporated such a view in this analysis although Clark’s (1973)

canonical encounter, which can be regarded as related to this issue, is cited in section 9.7.4.

Since the analysis attributes no function to the human body or body parts, the path function is regarded as the most significant single function of the objects referred to by the nouns that combine with *smal* ‘narrow/thin’.

### 9.7.3 Shape

In section 9.4, it was noted that some languages make a distinction among the lexicalised items associated with THICKNESS on the basis of shape (Wienold and Rohmer 1997). In Yucatec Maya, THICK referring to cylinder-shaped objects is lexicalised as *pim*, while for flat objects the lexicalisation is *polok* (Stolz 1996). A similar distinction can be discerned in Swedish too. The minimal dimensions of a cylinder-shaped object may be described as *tunn* ‘thin’ or as *smal* ‘thin’. The minimal dimension of a flat object, however, may only be described as *tunn* ‘thin’. Thus, *smal* ‘thin’ describes the cylinder-shaped objects only, and not the flat ones, just like *pim* ‘thick’.

The uses of spatial *smal* ‘narrow/thin’ can roughly be separated into five groups with regard to the shape of the object, which is described. These shapes are: cylindrical objects (*smala armar* ‘thin arms’), outstretched area (*en smal trädgård* ‘a narrow garden’), flat three-dimensional shapes (*en smal spånskiva* ‘a narrow sheet of chipboard’), non-flat three-dimensional extended cuboids (*ett smalt rum* ‘a narrow room’), and areas whose minor dimensions have very limited extension that can possibly be approximated to zero (*smalt streck* ‘thin streak’).

Some of the objects, described as *smal* ‘narrow/thin’, function as path or as passage, as was discussed in section 9.7.2. Other objects, described as *smal* ‘narrow/thin’, do not but their shape resembles a paths or passage. One of the five shape groups mentioned above, cylindrical objects, displays a resemblance to (cylindrical) passages in shape as a pole is similar to a pipe in terms of shape alone. The other four shape groups all reveal resemblances to paths. This is discussed below. I will start with cylindrical objects before moving on to the other shapes.

The group of instances where *small* ‘narrow/thin’ describes cylindrical objects, is the second largest corpus group. (The largest is *tjock* ‘thick’ describing extended areas.) This group includes nouns referring to the human body, see (297), and to certain body parts, see (298). Animate objects with this shape total 244 of the 901 instances altogether so it is a large group. There are also inanimate objects which do not function as paths or passages but have the shape of a cylinder, see (299)–(300). Inanimate objects with this shape that do not function as passages amount to only 26 of the total of 901 instances, thus forming a small group.

(297) Hur kan det komma sig att *du* är så *smal* om du är med barn? (B76–77)  
 ‘How can you be so thin when you are pregnant?’

- (298) Hennes *arm* känns varm och stark fast den är så ung och *smal*. (B76–77)  
‘Her arm feels warm and strong even though it is so young and thin.’
- (299) Han vred på huvudet och försökte se masten men focken var i vägen; när han vred sig åt andra hållet däremot såg han den. Den var guldlaserad, ett jämntjockt *smalt rör* av aluminium. (B76–77) ‘He turned his head and tried to see the mast but the foresail was in the way; however when he turned the other way he saw it. It was painted gold, a narrow aluminium pipe of uniform thickness.’
- (300) De finaste *rullarna* låg längst ut mot fönstret och de var också de *smalaste* för det som har silke som bas behöver inte stor plats. (B76–77) ‘The finest rolls were lying over by the window, and they were also the thinnest, because what has silk as a base doesn’t need much space.’

The inanimate objects display similarities in shape to cylinder-shaped passages.

Human beings and body parts are hardly comprehended as passages. However, human beings and body parts may be associated by shape resemblance to (cylindrical) passages.

As has been mentioned, *tjock* ‘thick’ describes an object forming an extended area in the majority of the cases in the corpus. In (301), such an object is described as *smal* ‘narrow/thin’.

- (301) Sedan gick han fram till det breda fönstret som vette mot en *smal trädgård* två våningar nedanför. (B76–77) ‘Then he went up to the wide window that faced the narrow garden two floors down.’

Some of these objects function as paths, while other have only a visual resemblance to a path.

Some body parts can possibly be idealised to outstretched areas. *Ansikte* ‘face’, *panna* ‘forehead’, *rygg* ‘back’, *bröst* ‘chest’, *axlar* ‘shoulder’, *höfter* ‘hips’ could be regarded as surfaces, or at least when these objects are described as *smal* ‘narrow/thin’ it could be argued that their two-dimensionality is stressed. The antonym would in this case be *bred* ‘broad/wide’, as in *brett ansikte* ‘broad forehead’ and *breda axlar/höfter* ‘broad shoulders/hips’. However, I regard this idealisation as uncertain and the examples have not been counted as belonging to the group. These uses may possibly be peripheral in the corresponding simple category.

In the corpus, there are also examples of flat, three-dimensional objects, described as *smal* ‘narrow/thin’:

- (302) Två *smala längder* trasmattor löpte längs tiljorna och några pelargonie-sticklingar slog rot i burkar innanför fönsterglasat. (B76–77) ‘Two narrow strips of rug ran along the boards and some geranium cuttings were rooting in jars on the windowsill.’
- (303) Mittemot sängen fanns en *smal spånskiva* på två bockar, det var Reines skrivbord. (B76–77) ‘Opposite the bed was a narrow sheet of chipboard on two trestles, it was Reine’s desk.’

Both the mat and the board are probably idealized to two-dimensional surfaces (Jackendoff and Landau 1991, Herskovits 1986). These objects resemble paths in shape even if the path function is missing. Here, body parts such as *händer* ‘hands’ and *fötter* ‘feet’ could be included, although I have regarded such an idealisation as uncertain.

The adjective *smal* ‘narrow/thin’ may also describe a non-flat three-dimensional, extended cuboid:

(304) Men *rummet* var långt och *smalt* och de två enkelsängarna stod med fotändan mot varandra. (B76–77) ‘But the room was long and narrow, and the two single beds stood with their foot ends touching.’

(305) Jag såg hennes skräck, såg henne rygga undan från den *smala lådan* utan att tröstas av sidenfodret. (B76–77) ‘I saw her fear, saw her flinch away from the narrow box without being reassured by the lace lining.’

The box of example (305) is an open casket. The nouns *rummet* ‘the room’ and *lådan* ‘the box’, refer to objects which resemble three-dimensional paths in shape, see 9.7.2. In examples (304)–(305), *smal* ‘narrow/thin’ describes internal measurements, but the adjective may also describe external dimensions:

(306) Han stirrade på bilen och nerför gatan på det höga, *smala*, fula *huset* där han bodde. (B76–77) ‘He stared at the car and down the street at the tall, narrow, ugly house where he lived.’

(307) Den *smala lådan* av tunna granbräder, struken med kimrök. (B80–81) ‘The narrow box made of thin planks of spruce, coated with lampblack.’

Both the object, referred to as *huset* ‘the house’ and the object, referred to as *lådan* ‘the box’ (which is a musical instrument), have external and internal measurements but as they are viewed from the outside it is plausible to assume that the descriptions refer to their external dimensions. This reduces the resemblance of the shape of the objects to paths as then there would be greater focus on their internal dimensions.

Comparison of two different items provides evidence for polysemy, if one constitutes a good path and the other only resemblance in shape:

(308) ?*Lådan* är *smalare* än stigen. ‘The box is narrower than the path.’

Apart from in situations where a hollow box is clearly intended to function as a path because it has somehow been placed appropriately (maybe to form some kind of tunnel), this sentence is difficult to interpret. If the box is replaced with a massive object such as *kloss* ‘block’, the interpretation suggests that it will function as some kind of bridge in relation to the path.

A human being can hardly be compared to a path, see (309). A human being may, however, be compared to a cylindrical object, see (310).

(309) ?*Stigen* är *smalare* än Maria. ‘The path is narrower than Maria.’

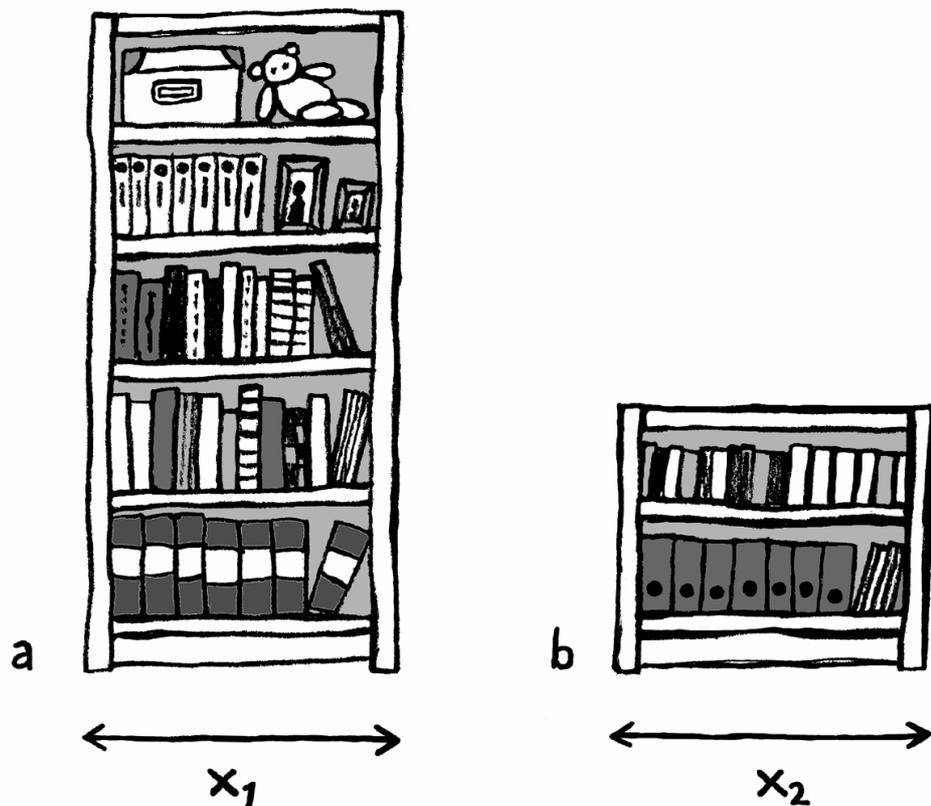


Figure 25. Two bookcases, where a can be referred to as *smal* while b cannot

(310) Maria är lika *smal* som den där stängen. (constructed) ‘Maria is just as thin as this rod.’

Particularly slender humans can be described by a lexicalised phrase as *smal som en sticka/ett streck* ‘thin as a splinter/a line’.

Finally, *smal* ‘thin/narrow’ may refer to areas whose minor dimension has a very limited extension. Examples are given in (311)–(312).

(311) Utan att lyfta på huvudet trevade han efter armbandsuret, höll upp det i ögonhöjd och kikade på de vassa *smala strecken*. (B80–81) ‘Without lifting his head he fumbled for his wristwatch, held it up to eye level and peeked at the sharp thin lines.’

(312) Men när han med blicken följde dessa åsar skymtade han långt bort i öster en *smal silverstrimma*, matt och orörlig i solskenet. Han pekade mot den. “Det måste vara Telthearna, säiyett.” (B76–77) ‘But, following the line of these ridges, he caught a glimpse of a narrow strip of silver far away to the east, faint and motionless in the sunlight. He pointed to it. “That must be Telthearna, säiyett”.’

It is arguable that these objects should be perceived instead as one-dimensional lines. I prefer to regard them as areas. This is discussed in more detail in section 9.9.5. Furthermore, *smal* ‘narrow/thin’ may never describe a dimension that is maximal. In Figure 25, the dimension  $x_1$  can be called *smal* ‘narrow/thin’, while  $x_2$  cannot. For this reason, ambiguous situations do not occur as they do for *bred* ‘broad/wide’ (see Chapter 6 on *bred* ‘broad/wide’). While a couch or a table may be referred to as *bred* ‘broad/wide’ both in terms of its maximal dimension (functional application) and its smaller horizontal dimension (proportion-system), *smal* ‘narrow/thin’ may only refer to the smaller horizontal dimension. *Smal* ‘narrow/thin’ may describe a left-right dimension (see section 9.7.4), but only if this dimension is not at the same time the maximal one. This is a case of asymmetry between *bred* ‘broad/wide’ and *smal* ‘narrow/thin’, which otherwise function to a very high degree as opposites with reference to, regarding areas, flat objects, and cuboids. *Panna* ‘forehead’ and *axlar* ‘shoulders’ may be exceptions, however, as such proportions are individual. When *smal* ‘thin/narrow’ describes cylinders, *tjock* ‘thick’ is the antonym.

### 9.7.4 Orientation

Like *bred* ‘broad/narrow’, *smal* ‘narrow/thin’ can refer both to the left-right dimension of an object, see (313)–(314) and to the smaller (horizontal) dimension, see (315).

- (313) När jag fortsatte framåt, medan jag banade mig väg genom skräpet, kom jag till en liten *smal betongtrappa*, just där det tycktes vara stopp. (B76–77)  
 ‘When I continued to move forwards, while I was clearing my way through the rubbish, I came to some small narrow concrete steps, just where it seemed to come to an end.’
- (314) Vi hade legat i min säng, en stor och stökig säng full med kuddar och filtar, men ändå samma *säng* som jag sovit i en vecka nu, *smal* och knarrig med resåren som en hängmatta på mitten. (B76–77) ‘We had been lying in my bed, a large, untidy bed covered in pillows and blankets, but still the same bed I had slept in for a week now, narrow and squeaky and sagging like a hammock in the middle.’

In (313), the dimension referred to as *smal* ‘narrow/thin’ is the left-right dimension for a user. In (314), the dimension referred to as *smal* ‘narrow/thin’ is the left-dimension for a user (when lying in the bed, at least when lying on the back). However, it is not certain if the dimension referred to as *smal* ‘narrow/thin’ is the left-right dimension for an observer regarding the staircase and the bed, which supports my suggestion that the user not the observer should be invoked in the semantics. This is discussed in more detail in section 6.4.3 in Chapter 6 on *bred* ‘broad/wide’.

For human beings, body parts such as *panna* ‘forehead’, *ansikte* ‘face’ and *axlar* ‘shoulders’ are described as *smal* ‘narrow/thin’. This probably

derives from the concept of facing that other person so that the face described as *smal* ‘narrow’ extends in the left-right dimension from the speaker’s point of view. Such a face-to-face situation is called canonical encounter by Clark (1973), who says that it is fundamental in various respects. Alternatively, the description may derive from the speaker’s awareness of his/her own forehead extending in the left-right dimension. This awareness would then be projected on to the face described as *smal* ‘narrow/thin’. I will not elaborate on this issue since I have not performed enough research on dimensional adjectives and the human body to give a fair account.

*Smal* ‘narrow/thin’ may also describe a dimension, which is not left-right from a user perspective. In (315), leaves are described as *smal* ‘narrow/thin’.

- (315) Även det lilla buskartade balsamträdet växte där, med sina *smala* ständigt gröna blad. (B80–81) ‘Even the little bushy balsam poplars grew there, with their narrow evergreen leaves.’

For surfaces and three-dimensional cuboid-shaped objects extension in the horizontal plane is the predominant orientation in the corpus instances. There are a few examples where the main dimensions form a vertical plane, such as *de smala fönstren* ‘the narrow windows’, *höga smala grindar* ‘tall narrow gates’, *smala ljusspringor* ‘narrow slits of light’, *smala öppningen* ‘the narrow opening’, *valvet var för smalt* ‘the vault was too narrow’, *smal dörr* ‘narrow door’, *smala fria väggen* ‘the narrow freestanding wall’, *smala vita rullgardinen* ‘the narrow white rollerblind’, and *det smala skåpet* ‘the narrow cupboard’, among others.<sup>36</sup>

Where the orientation of inanimate cylindrical objects is concerned, canonical orientation is as common, see (316), as lack of specified orientation, see (317).

- (316) Den fortsatte längre och längre ner, gick över ett järnvägsspår och svängde så in mellan blodröda träd med gröna, *smala stammar*, aspar. (B76–77) ‘It carried on further and further down, crossed a railway track and then turned in between crimson trees with green, narrow trunks, aspen.’

- (317) Ur sminkväskan kikade en *smal pessarstång* upp som ett periskop. (B76–77) ‘From the make-up bag a thin pessary inserter peeked out like a periscope.’

For animate cylindrical objects, such as human bodies, and legs, vertical orientation predominates.

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<sup>36</sup> Recall that there are two vertical planes, one where the horizontal extension goes along the left-right axis, and one where the horizontal extension goes along the front-back axis (see Chapter 3 on Theoretical assumptions). In the examples of *smal* ‘narrow’, the object, to which the noun refers, extends in a vertical plane with the horizontal dimension along the left-right axis. This means that *smal* ‘narrow/thin’ still describes a horizontal extension.

Thus, in the corpus, combinations of adjective and nouns that refer to objects whose main dimensions canonically extend in the horizontal plane dominate. Vertical orientation predominates in combinations of adjective and nouns that refer to cylindrical objects.

It was suggested that *bred* ‘broad/wide’ refers to a dimension which extends sideways. *Smal* ‘narrow/thin’ seems to show similarities to *bred* ‘broad/wide’ in this respect. However, it appears that a mental operation of the following kind takes place: first, the dimension extends to the sides to meet a certain norm, and then moves in the opposite direction, towards the middle. This is analogous to way in which *låg* ‘low’ is suggested as behaving, see Chapter 5 (on *hög* ‘high/tall’). In the corpus, there is one instance of factive motion supporting the idea:

- (318) Den rökiga luften under det låga taket drogs ihop i en *smal stråle* som sögs ut i mörkret genom det lilla hålet. (B76–77) ‘The smoky air under the low ceiling was concentrated into a thin jet which was sucked out into the darkness through the small hole.’

In (318), smoke moves towards a centre, forming a thin jet that passes through a hole in the ceiling.

The verb *smalna* ‘to narrow’ indicates a transformation in which an object becomes narrower. This is used in the corpus about paths that are narrower in one place compared to another so that while negotiating it, the path is perceived as changing shape (*smalna* ‘narrowing’). Talmy refers to this as frame-relative motion (Talmy 1996:238).

- (319) Hon gick långt ut på den nedersta grova grenen. Hon hukade sig och där den delade sig och *smalnade* så pass mycket att hon fick grepp om den hängde hon sig i händer och knäveck. (B80–81) ‘She went a long way out on the lowest thick branch. She squatted down and where it divided and narrowed enough for her to get a grip around it she hung by her hands and knees.’
- (320) Bakom glasdisken steg en väldig trappa uppåt mot en exklusiv restaurang. Det var något i perspektivet som inte stämde, såg Lajos: trappan *smalnade* av uppåt – faktiskt – men blomsteruppsättningarna längs trappträcket blev större och större ju högre och avlägsnare de stod. (B76–77) ‘Behind the glass counter an enormous staircase led up to an exclusive restaurant. Lajos saw that something was wrong with the perspective: the staircase narrowed at the top – as a matter of fact – but the flower arrangements along the banisters got bigger and bigger the higher and further away they stood.’
- (321) Hon satt tyst bredvid mig, medan vi körde och körde, ända tills vi passerat de gasupplysta grindarna till de få lantegendomarna och där grusvägen *smalnade* och blev sörjig och träskvegetationen reste sig på sidorna om oss, en till synes jättelik mur av ogenomträngliga cypresser och klängväxter. (B76–77) ‘She sat silently next to me while we drove and drove, until we had passed the gas-lit gates of the few estates and where the gravel road narrowed and became muddy and the marsh vegetation rose up on either side of us, a seemingly giant wall of impenetrable cypresses and climbers.’



Figure 26. The traffic sign signalling ‘road narrows’

It cannot be stated whether the roadsides actually approach the middle of the road equally, or if one roadside is more or less straight while the other merges towards that roadside. However, when going along the path, as it narrows both sides will be perceived as approaching the middle. The illustration on the road warning sign depicts both sides approaching the middle, see Figure 26.

### 9.7.5 Embodiment thesis revisited II

My position concerning the embodiment thesis is that objects outside the speaker’s own body may be as important in understanding concepts as the speaker’s own body, see Chapter 3 (Theoretical assumptions). I believe that a fair analysis of the dimensional adjectives should adopt objects outside the body (inanimate objects) as its point of departure. The human body is then described in analogy to objects outside the body.

However, this may not be the case for all dimensional adjectives. As suggested in Chapter 8 in the discussion of *tjock* ‘thick’ (see especially section 8.5.5), the cylindrical shape is prominent. *Tjock* ‘thick’ describing a cylindrical shape constitutes the central case. Within it, uses such as *tjock gubbe* ‘fat old man’ are prototypical. This means that the combination of *tjock* ‘thick’ with a noun referring to a human being is an important use. We cannot exclude the possibility of this use influencing description of objects outside the body.

Likewise, the use of *smal* ‘narrow/thin’ to describe a human being forms an important use. As noted in section 9.7.3, I regard *smal* ‘narrow/thin’ as a complex category, corresponding to a network model. There are four cases in the model: one where *smal* ‘narrow/thin’ describes a path, another one where *smal* ‘narrow/thin’ describes a passage, a third one where *smal* ‘narrow/thin’ describes cylindrical objects with shapes similar to (cylindrical) passages, and a fourth one where *smal* ‘narrow/thin’ describes object displaying resemblances in shape to paths. Within the third cases, where *smal* ‘narrow/thin’ describes cylindrical objects, uses such as *smal modell* ‘thin model’, referring to human beings, are prototypical. The first case and the third case are equally strong, thus suggesting that the human body is one of two important instances. I have not examined the relationship between the cases, but we cannot rule out the possible influence of how the body is described on description of external objects.

When discussing the human body, one’s own body should be distinguished from somebody else’s. A strict interpretation of the embodiment thesis (Lakoff 1987) rather involves one’s own body. As discussed in section 8.5.5 of Chapter 8 some other person’s body may be important for the semantics of *tjock* ‘thick’, and this could well apply for *smal* ‘thin/narrow’, too. Then, the experience of seeing, hugging, touching a person described as *smal* ‘thin’ may be as fundamental as the impression of thinness in one’s own body. From this perspective, the analysis of *smal* ‘thin’ may still support the extended embodiment thesis, as suggested by Sinha and Jensen de López (2000). It should also be borne in mind that the extended embodiment thesis by no means excludes the human body but merely envisages it as competing with other objects.

It may be the case that the extended embodiment thesis is better supported by evidence from studies regarding certain adjectives (such as *hög* ‘high/tall’, *djup* ‘deep’ and *bred* ‘broad/wide’) than studies that deal with others (*tjock* ‘thick’ and *smal* ‘narrow/thin’). The variation in the importance of the impact of the human body for different adjectives further supports my hypothesis that the dimensional adjectives do not form a neat patchwork pattern, but behave rather differently in relation to each other.

## 9.8 Claims concerning *tunn* ‘thin’

*Tunn* ‘thin’ in its spatial, non-metaphorical sense can be described as a complex category, corresponding to a network model. One case is considered to be central. *Tunn* ‘thin’:

- Refers to a dimension, which can be held between the fingertips.
- Refers to the minimal dimension(s), where the adjective indicates a minimal extension in relation to a norm.
- Refers to outer measurements.

- Refers to a low degree of resistance to outer forces such as kinetic energy or pressure.
- Is only partially a dimensional adjective.

*Tunn* ‘thin’ preferably combines with nouns referring to flat objects.

## 9.9 Results and discussion on *tunn* ‘thin’

In this section, the relation to *tjock* ‘thick’ is examined. The discussion that then follows deals with the minimal dimension, the graspable dimension and the aspect of resistance before the relationship of *smal* ‘thin’ and *tunn* ‘thin’ is examined. Finally, the issue of polysemy will be raised.

### 9.9.1 The antonymous relation to *tjock* ‘thick’

The adjective *tunn* ‘thin’ has strong links with *tjock* ‘thick’. The two adjectives are closer to each other, in terms of their semantics, than a number of other adjectives commonly viewed as antonyms, see Chapter 10 on *djup* ‘deep’ and *grund* ‘shallow’ for a good example. *Tjock* ‘thick/fat’ both has an antonymous relation to *smal* ‘thin’ and to *tunn* ‘thin’. *Tjock* ‘thick/fat’ and *smal* ‘thin’ are antonymous regarding cylindrical objects, mainly human beings and body parts, such as *tjock gubbe* ‘fat old man’. *Tjock* ‘thick’ and *tunn* ‘thin’ are antonymous concerning all types of objects. This includes cylindrical objects such as *tunn lina* ‘thin rope’. Body parts are less frequently described as *tunn* ‘thin’ but it definitely occurs, as in *tunna armar* ‘thin arms’. Note that *smal* ‘thin’ about the human body has mainly positive values in terms of beauty ideals, whereas *tunn* ‘thin’ has a negative value.

Like *tjock* ‘thick’, the adjective *tunn* ‘thin’ refers to the minor dimension(s) of an object. The semantics of *tjock* ‘thick’ resemble those of *tunn* ‘thin’ in not only including dimensional aspects but also aspects of resistance. *Tunn* ‘thin’ may describe liquids and gases, such as *tunt örtte* ‘weak herbal tea’ and *tunn rök* ‘thin smoke’, where the dimensional aspect is missing and only the aspect of resistance is present, as well as solid objects, such as *tunna silverskedar* ‘thin silver spoons’, where the dimensional aspect is present and less importance attributed to the aspect of resistance.

In Chapter 8 it was suggested that a dimension (or two dimensions), referred to as *tjock* ‘thick’ may be grasped by the hand or by the fingers, if the object is manipulated. The dimension referred to as *tunn* ‘thin’ is smaller and may be held between the fingers, if the object is subject to manipulation in any way. However, in some cases, the dimension may be so small and so fragile that this is hardly possible, especially regarding coats or

films, such as *tunn ishinna* ‘thin layer of ice’ or *chokladdrycken lagt sig som en tunn hinna runt munnen* ‘I had a thin film of drinking chocolate around my mouth’. If pieces of the coat are regarded, they may be held, but the coat, as a whole, may be difficult to manipulate.

*Tunn* ‘thin’ is mainly associated to inanimate entities, mostly of solid matter.

## 9.9.2 The minimal dimension

*Tunn* ‘thin’ describes one, two or even zero dimensions. For flat objects, layers and coats, the adjective describes one dimension. For cylinders, the adjective describes two dimensions. In the corpus, instances where *tunn* ‘thin’ combines with a noun, referring to a flat object (either rigid or soft) or to a coat, dominate. Of a total of 330 instances 222 have been considered to belong to such a group. In (322)–(324), three instances are shown.

- (322) Nu öppnade han dörren till mittutrymmet och tog fram en liten *tunn*, svart, tättskriven *anteckningsbok*. (B76–77) ‘Now he opened the door to the central cubbyhole and took out a small, thin, closely written black notebook.’
- (323) En *tunn handduk* med stadens vapen låg över knäet. (B76–77) ‘A thin towel with the town’s coat of arms was lying on his lap.’
- (324) Ostskivan hade smält samman och lagt sig som en *tunn hinna* över det sega knäckebrödet. (B76–77) ‘The slice of cheese had melted to a thin film over the tough crispbread.’

In the elicitation, 26 out of 31 nouns belonged to this group, such as *papper* ‘paper’ (3 occurrences), *bok* ‘book’ (3 occurrences), *ostskiva* ‘slice of cheese’ (2 occurrences), *hinna* ‘coat/film’, *lager* ‘layer’, *skiva* ‘board’, *paket* ‘package’.

*Tunn* ‘thin’ may also describe objects with the shape of a cylinder. *Tunn* ‘thin’ then describes the two minor dimensions. It is assumed that the two dimensions are viewed as collapsed into one, see Chapter 8 on *tjock* ‘thick’, section 8.5.1. This group is the second largest in the corpus. Combinations of *tunn* ‘thin’ and a noun referring to a cylinder form 39 instances (out of 330). Two examples are given. In (325), a rigid cylinder is referred to as *tunn* ‘thin’, while in (326), a soft cylinder is referred to as *tunn* ‘thin’.

- (325) Så sydde modern henne en klänning med mycket vid rynkad kjol som gick ända ner till fotknölarna och av två *tunna rottingrör* tillverkade hon en krinolin. (B76–77) ‘Her mother then made her a dress with a very wide gathered skirt that went all the way down to her ankles and used two thin rattan canes to make a crinoline.’
- (326) Stark nog var säkert *linan*, men den var *tunn*, tunnare än en vanlig elektrisk sladd och det skulle bli mycket svårt att få grepp om linan med händerna, när man promenerade ned utefter väggen och sedan pendlade in över balkongen. (B76–77) ‘The rope was probably strong enough, but it was thin, thinner

than a normal electric cable, and it would be very difficult to get a grip around the rope with your hands to abseil along the wall and then swing in over the balcony.’

Some cylindrical objects are hollow, and then *tunn* ‘thin’ may either refer to the cross-section of the cylinder or its walls or both, see (327). In the corpus, such examples occur twice. As mentioned in section 8.2, Lafrenz (1983) describes such uses of German *dick* ‘thick’ as ambiguous. These instances have been counted as *tunn* ‘thin’ describing a cylinder.

(327) Walter tömde det omgående och vätskan rann rakt igenom hans strupe som genom ett trångt avloppsrör; Torsten väntade bara på att den stora suck som brukar infinna sig efter en vattenmassa som häftigt hållts ner genom ett *tunt rör*. (B80–81) ‘Walter emptied it immediately and the liquid ran straight through his gullet as if were a narrow sewage pipe; Torsten just waited for the enormous sighing sound that normally follows when a lot of water has been poured rapidly down a thin pipe.’

*Tunn* ‘thin’ may also describe a dimension which is approximated to zero. This is the case when *tunn* ‘thin’ combines with nouns such as *linje* ‘line’ and *streck* ‘line’ which refer to one-dimensional lines:

(328) Jag vande mig att dra så *tunna linjer* att de inte kunde urskiljas med blotta ögat. (B76–77) ‘I got used to drawing such thin lines that they could not be discerned with the naked eye.’

There are 8 (out of 330) such instances in the corpus. In the elicitation task, the noun *linje* ‘line’ occurred twice. Both *tunn* ‘thin’ and *smal* ‘thin’ can be used to describe one-dimensional lines, see section 9.7.3 on *smal* ‘thin’.

In addition, there is one group in the *tunn* ‘thin’-corpus, containing 13 (out of 330) examples, where it is uncertain whether the noun refers to a one-dimensional line or a two-dimensional area. Here, nouns such as *rännil* ‘rill’, *strimma* ‘streak’, and *springa* ‘slit’ are included. These nouns can combine both with *tunn* ‘thin’ and with *smal* ‘thin’. This is further discussed in section 9.9.5.

In the discussion of *tjock* ‘thick’ in Chapter 7, it was noted that in some contexts it may refer to three dimensions. This is not the case for *tunn* ‘thin’. This is an asymmetric aspect in the antonymous relationship.

### 9.9.3 The dimension grasped by the fingers

As mentioned in section 9.9.1, the dimension, which is described as *tunn* ‘thin’, is the one that is grasped or held if the object is manipulated in any way. Since the dimension, described as *tunn* ‘thin’, often has minimal extent, it is not grasped by the hand/fist but rather by the fingers and held between the fingertips. A few examples are shown in (329)–(331).

- (329) Vi bakar ut stora, *tunna kakor*. (B76–77) ‘We shape the dough into large, thin cakes.’
- (330) Ett *tunt*, blått *kuvert* som kom med posten strax efter jul. (B76–77) ‘A thin blue envelope that came by post just before Christmas.’
- (331) Christoph drog fram ett *tunt krokodilfodral* ur innerfickan och bjöd mig en cigaret, slog eld på en tändsticka, tände min cigaret och sin egen... (B80–81) ‘From his inside pocket, Christoph took out a thin crocodile case and offered me a cigarette, lit a match, lit my cigarette and his own...’

The elicitation test revealed nouns such as *papper* ‘paper’, *plastfolie* ‘plastic film’, *kex* ‘biscuit’, *löv* ‘leaf’ and *häfte* ‘leaflet’. These nouns refer to objects, for which it is true that the dimension, described by *tunn* ‘thin’, is held between the fingertips. Of 31 nouns, 21 referred to objects that are manipulated by grasping the dimension, described as *tunn* ‘thin’. The remaining nouns referred to layers, coats, soup, ice, wall, and lines.

In the corpus, the majority of the nouns referring to flat objects do not fit into this group because they cannot be held between the fingertips at all, being too fragile. Descriptions of ice are very abundant in the corpus, and these layers are not strong enough to be manipulated like this. Moreover, it is not so common for objects described as *tunn* ‘thin’ to occur in contexts of touching, feeling or handling. This is interesting, since such scenarios provide rather common uses of *tjock* ‘thick’ in the corpus. Hence, another asymmetry between *tjock* ‘thick’ and *tunn* ‘thin’ has been detected.

As noted in relation to hollow, cylindrical objects in section 9.9.2, *tunn* ‘thin’ may also describe the walls of a container. In (332), such an example can be seen.

- (332) Hon visade in honom i vardagsrummet och bjöd honom att sitta ned framför ett bord som var dukat med utsökta *tunna tekoppar*, en silveruppsättning för socker och mjölk och ett fat med dubbla trekantiga smörgåsar. (B76–77) ‘She showed him into the living room and asked him to sit down in front of a table laid with exquisite, fine teacups, matching silver sugar and milk bowls and a plate of triangular sandwiches.’

#### 9.9.4 Resistance

The sense of insufficient resistance forms part of the semantics of *tunn* ‘thin’, just as resistant is involved in the semantics of *tjock* ‘thick’:

- (333) Gunnar Björnstrand har berättat att han hade hytten bredvid oss och att *väggarna* var ganska *tunna*. (B76–77) ‘Gunnar Björnstrand related that he had the cabin next to us and that the walls were quite thin.’
- (334) Den nya *isen* var fortfarande för *tunn* för att bära honom, fastän de välbekanta spindelvävsliknande linjerna syntes allt tydligare. (B76–77) ‘The new ice was still too thin to take his weight, although the familiar cobweb lines were becoming more and more visible.’

- (335) Tisdagskvällen lägrade sig över vardagsrummet, bakom de *tunna gardinerna* kunde de se regnet falla och växa till en glasvägg i skenet från gatlyktan. (B76–77) ‘Tuesday evening took possession of the living room, behind the thin curtains they could see the rain falling, turning into a wall of glass in the light from the street lamp.’

In example (333), the walls are not resistant to sound. The context tells the story of the well-known Swedish actor Gunnar Björnstrand hearing a young couple in the cabin next to his drinking champagne every morning. In example (334), a coating of ice is considered too thin to carry a human being, and in example (335), the curtains are easy to see through, thanks to their minimal thickness.

Furthermore, liquids and gases are objects that exhibit low resistance if described as *tunn* ‘thin’. In the corpus, there are 37 (out of 330) instances where *tunn* ‘thin’ combines with a noun referring to an object of this type. In (336)–(337), two examples are given.

- (336) [...] medan han kippade efter andan och såg de *tunna*, vattenhaltiga *oljeklickarna* försvinna ner i klosettskålen. (B76–77) ‘[...] while he gasped for breath and saw the thin, watery globules of oil disappear down into the water closet.’
- (337) Häruppe sken solen men fast de inte befann sig på någon avsevärd höjd låg det en *tunn dimma* alldeles nedanför dem. (B80–81) ‘Up here the sun was out, but even though they weren’t at any great height there was a thin mist right below them.’

In the elicitation, *soppa* ‘soup’ occurred 3 times (out of 31). According to the dictionaries, see section 9.2, *tunn* ‘thin’ combined with a noun, referring to a liquid means either that the liquid has been diluted or that it has low viscosity.

Finally a few interesting examples will be discussed. The first one is given in (338).

- (338) Regndropparna på fönsterrutan hade synts *tunna* och lätta i mönstret, som en spindelväv av fukt på det blanka glaset. (B76–77) ‘The raindrops against the window pane had appeared as a fine and light pattern, like a cobweb of moisture on the shiny glass.’

In (338), the noun *regndroppar* ‘raindrops’ combines with *tunn* ‘thin’. As mentioned earlier in this section, liquids may be referred to as *tunn* ‘thin’. According to the dictionaries, the combination of adjective and noun describes a liquid of low viscosity or a liquid which has been diluted. However, water can hardly be further diluted. If the viscosity of a liquid is referred to as *tunn* ‘thin’ it should be lower than expected. This is probably not true of the raindrops in example (338). Instead, it seems to be the small size and perhaps the lightness of each raindrop that is regarded. Each raindrop may be perceived as a small flake or mini-layer so that they can be referred to as *tunn* ‘thin’.

The next use concerns a network:

- (339) Den delvis krossade rutan och det *tunna nätverket* av sprickor skulle komma att fotograferas senare. (B76–77) ‘The partly smashed window and the fine network of cracks would be photographed later.’

The use is complex. Various related senses of *tunn* may be regarded. First, the thinness of each crack can be considered. Second, how close the different cracks are to each other can be considered. This might be related to the meaning of resistance or to the measurement of how sparsely hair or the trees of a forest grow (see section 9.2 where such examples from dictionaries are given). Thirdly the depth of the penetration of the network into the windowpane might be considered, as well. Although the windowpane is a flat object, this does not really apply to the network of cracks even though it could be regarded as a layer on the windowpane.

The next example concerns rain again:

- (340) Jag såg ned i mörkret genom det *tunna silverregnet*. (B76–77) ‘I looked down into the dark through the fine silvery rain.’

The rain is referred to as *tunn* ‘thin’. The adjective refers to its lack of mass (as opposed to a heavy rain). Where other combinations of *tunn* ‘thin’ and a noun referring to a liquid indicate a great amount of water diluting a small amount of something more substantial, such as fat etc., this combination describes rather a situation with little liquid and a great amount of nothing (or air). There are other examples in the corpus of this kind, such as *det tunna lilla vattenfallet* ‘the thin little water-fall’ and *en tunn vattenkaskad* ‘a thin water cascade’. Note that it is not possible to describe a rain as *tjock* ‘thick’: *?tjockt regn* ‘thick rain’. Thus, another asymmetry has been found.

### 9.9.5 The relationship of *tunn* ‘thin’ and *smal* ‘thin’ for objects of streak-type

As mentioned in section 9.9.2, some objects can be described both as *tunn* ‘thin’ and as *smal* ‘thin’. Among these objects are *strimma* ‘streak, stripe’, *kant* ‘edge’, *rännil* ‘rill’, *stråle* ‘jet, squirt, ray, beam’, *springa* ‘slot, slit’, *kedja* ‘chain’, *sträng* ‘string’, *cigarr* ‘cigar’. For example, *blod* ‘blood’ can be described as *en tunn blodstrimma* ‘a thin streak of blood’ *en tunn rännil av blod* ‘a thin trickle of blood’ or as *blodet som i en smal rännil* ‘the blood as in a thin trickle’. I have had difficulties labelling this object type, since it is not clear whether these objects are one-dimensional lines or two-dimensional areas, or if, rather, interpretation is steered by the choice of adjective. Below, I will take a closer look at some of these instances, in order to explain how the objects are compatible with both adjectives (*tunn* ‘thin’ and *smal* ‘thin’).

First, the noun *strimma* ‘streak, stripe’ will be examined. In (341)–(344), four examples are given, two in which *strimma* ‘streak, strip’ collocates with *tunn* ‘thin’ and two with *smal* ‘thin’.

- (341) Överallt där de hade suttit sipprade en *tunn blodstrimma* långsamt fram. (B80–81) ‘Everywhere they had sat a thin streak of blood trickled slowly out.’
- (342) En *tunn strimma* saliv började sippra fram ur hans mungipa. (B76–77) ‘A thin streak of saliva began to trickle out from the corner of his mouth.’
- (343) Jag kastade en blick uppåt åsen tvärs över dalen och fick se en *smal strimma* naken jord där man hade dragit fram vägen. (B80–81) ‘I looked up the ridge across the valley and saw a narrow streak of soil where the road had been constructed.’
- (344) [...]skymtade han långt bort i öster en *smal silverstrimma*, matt och orörlig i solskenet. (B76–77) ‘[...] he caught a glimpse of a narrow streak of silver far away to the east, faint and motionless in the sunlight.’ = (312)

I have tied *smal* ‘narrow/thin’ to paths whereas this is not the primary association for *tunn* ‘thin’. The fact that *tunn* ‘thin’ describes clear paths (of blood and saliva) in examples (341)–(342) indicates how close the adjective are to each other.

According to Bonniers svenska ordbok, *strimma* ‘streak, stripe’ can mean both *smalt band* ‘thin band, ribbon’, *streck* ‘line’ and *rand* ‘edge, stripe’. *Band* ‘band, ribbon’ is usually an object whose two smaller dimensions are not of equal extension (as opposed to a *snöre* ‘string’). *Streck* ‘line’ is usually an object which has only one dimension (its length). *Rand* ‘edge, stripe’ can either mean the edge of something, or a stripe (as in a pattern). In its former sense it is perceived rather as one-dimensional, in the latter as two-dimensional. This indicates that *strimma* ‘streak’ can refer to an object with one or two dimensions (either a one-dimensional line, or a two-dimensional area). I suggest that the collocation *tunn strimma* ‘thin streak/stripe’ is perceived as a one-dimensional streak, and the collocation *smal strimma* ‘thin streak/stripe’ implies that it is a two-dimensional stripe.

We can now turn to the noun *kant* ‘edge’. In (345)–(346), two examples are given, one where *kant* ‘edge’ combines with *tunn* ‘thin’ and one where it combines with *smal* ‘thin’.

- (345) I ett hörn hade Ingrid stuvat lilablommiga kaffekoppar och fat, en knubbig kaffepanna, uppläggsfat med *tunn guldkant*, en mjölktilbringare i benporcelain. (B80–81) ‘In a corner Ingrid had stowed coffee cups and saucers decorated with purple flowers, a chubby little coffee pot, serving dishes with thin gold rims, a bone china milk jug.’
- (346) Till slut tog han vatten och frös en *smal kant* längs båda väggarna. (B76–77) ‘Finally he took some water and froze a thin border along either wall.’

In (345), *kant* can be interpreted as an edge, or, in this particular sentence, as rim, that is, the verge of the plate, whereas in (346), I would rather interpret *kant* as an area.

The next noun which combines both with *tunn* ‘thin’ and *smal* ‘thin’ in the corpus, is *rännil* ‘trickle’:

(347) En *tunn rännil* av blod rann utför hans panna. (B76–77) ‘A thin trickle of blood ran down his forehead.’

(348) Och framför henne stod Wilhelm med högröda kinder och – Harriet såg det med avsky! – en *smal rännil* av saliv ner över hakan. (B76–77) ‘And in front of her stood Wilhelm with bright red cheeks and – how it disgusted Harriet – a narrow trickle of saliva down across his chin.’

I suggest that the collocation *tunn rännil* ‘thin trickle’ refers to an object, which is comprehended as a one-dimensional line, where *smal rännil* ‘narrow trickle’ refers to an object, which is comprehended as an area. In (347), the preposition *utför* ‘down’ is used, while in (348), the preposition *över* ‘over’ is used. A cursory study of the verb *rinna* ‘run, flow’ in its two forms *rinner* ‘runs, flows’ and *rinna* ‘run, flow’ in the three corpora B76–77, B80–81 and p98 makes it clear that the preposition *över* ‘over’ is used in cases when the running object has width, i.e. is a two-dimensional plane whereas *utför* ‘down’ and *nerför* ‘down’ are the prepositions used both when width is lacking, i.e. it is treated as a one-dimensional line, and present, i.e. it is perceived as a surface. Thus, *tunn* ‘thin’ would be compatible mostly with *utför* ‘down’ and *nerför* ‘down’, as in (347), while *smal* ‘narrow/thin’ would be compatible with both *utför* ‘down’, *nerför* ‘down’ and *över* ‘over’, as in (348)

In addition, there are a few instances of *springa* ‘slit, slot’:

(349) Vid skiljeväggen vid det lilla bordet fanns en *smal myntspringa* och en skivväljare för jukeboxen borta vid ingången. (B76–77) ‘By the partition wall by the little table there was a narrow coin slot and a record selector for the jukebox over at the entrance.’

(350) Han fick se en strimma ljus sippra ut i mörkret genom en *tunn springa* i brädväggen. (B80–81) ‘He saw a streak of light seep out into the dark through a narrow slit in the boarded partition.’

*Smal* ‘thin’ may very well refer to an object which forms a negative part (the term borrowed from Jackendoff and Landau 1991), while *tunn* ‘thin’ rather refers to an object formed by an object with mass. There are 7 instances of *smal* ‘thin’ combining with *springa* ‘slit, slot’ but only 1 of *tunn* ‘thin’ combining with *springa* ‘slit, slot’. Compare as well *smalt/?tunt tomrum* (constructed) ‘thin/thin empty space’ and *smalt/?tunt utrymme av luft emellan* (constructed) ‘thin/thin space of air between’. Describing an empty space by using the adjective *smal* ‘narrow/thin’ is coherent while the adjective *tunn* ‘thin’ is odd.

In the corpus, the noun *kedja* combines both with *tunn* ‘thin’ and with *smal* ‘thin’:

(351) [...] medan han lekte med en parfymdosas av silver som var fäst vid hans bälte med en *tunn guldkedja* [...] (B76–77) ‘[...] while he played with a silver perfume box that was attached to his belt by a thin gold chain [...]

(352) Guldamulettens i den *smala kedjan* runt halsen ligger gömd i hans hand. (B80–81) ‘The gold talisman on the thin chain around his neck is hidden in his hand.’

A chain can either have a cylindrical shape or a flat shape. If it is flat, *smal* ‘thin’ refers to the second largest dimension and *tunn* ‘thin’ to the smallest. If the chain has a cylindrical shape, I am not sure whether both *tunn* ‘thin’ and *smal* ‘thin’ can be used, or if only *tunn* ‘thin’ is possible. Some cylindrical objects with a large extension for one dimension and a very small circumference (like *tråd* ‘thread’ and *hårstrå* ‘hair’) are always described as *tunn* ‘thin’ and never as *smal* ‘thin’. From the context, it is impossible to determine the shapes of the chains in the examples above.

Finally, the noun *cigarr* ‘cigar’ combines with both *tunn* ‘thin’ and *smal* ‘thin’:

(353) Hon trevade efter en *tunn cigarr* i det bruna träskrinet på bordet bredvid. (B80–81) ‘She fumbled for a thin cigar in the brown wooden box on the table next to her.’

(354) Men en *smal*, parfymrad *cigarr*. (B80–81) ‘But a thin, aromatic cigar.’

The examples show how close *tunn* ‘thin’ and *smal* ‘thin’ are in some uses. Those discussed above correspond to members, which are not central in their respective categories. The prototypical uses of *tunn* ‘thin’ and *smal* ‘narrow/thin’ exhibit greater differences, while in these, more peripheral uses, *tunn* ‘thin’ and *smal* ‘narrow/thin’ overlap.

### 9.9.6 A complex category

Like *tjock* ‘thin’, *tunn* ‘thin’ should be regarded a complex category. It can be described as a network model, where the central case is a flat object whose minimal dimension is described as *tunn* ‘thin’, whose dimension, described as *tunn* ‘thin’ is the one held between the fingertips if the object is manipulated, and, finally, which offers little resistance to externally exerted kinetic energy. Other members of the complex category may lack one or two of these qualities, for instance *tunt örtte* ‘thin herbal tea’ only exhibits the quality of low resistance, and *tunt häfte* ‘thin leaflet’ exhibits two qualities, minimal dimension and being held between the finger-tips.

## 9.10 Claims concerning *trång* ‘narrow’

*Trång* ‘narrow’ in its spatial, non-metaphorical sense can be described as a simple lexical category where some uses are prototypical and some are peripheral. *Trång* ‘narrow’:

- Refers to the internal dimensions of an object.
- Indicates no great extension in relation to a certain norm.

*Trång* preferably combines with nouns referring to objects which are

- Paths, passages or containers for human beings.

Some referent-classes are so prototypical that they are comprehended as being *trång* ‘narrow’ themselves, such as *trång cell* ‘cramped cell’, *trång bur* ‘cramped cage’.

## 9.11 Results and discussion on *trång* ‘narrow’

Nouns combining with *trång* ‘narrow’ refer to objects with clear function. A minority refer, however, to objects that have no strong functional associations, but they show similarities in terms of shape or possible function. I will start by discussing the function, and then move on to the issue of the number of dimensions involved when an object is described as *trång* ‘narrow’. In addition I intend to compare *smal* ‘narrow/thin’ and *trång* ‘narrow’. Finally, the relationship of *trång* ‘narrow’ and *vid* ‘broad’ will be discussed. *Trång* ‘narrow’ is not considered to exhibit polysemy.

### 9.11.1 Function

As opposed to other dimensional adjectives (such as *hög* ‘high/tall’), *trång* ‘narrow’ shows great homogeneity regarding the function of the objects it describes. The objects function as containers, paths, or passages. In the corpus combinations of *trång* ‘narrow/cramped’ and a noun referring to a container dominate. Of 169 examples, 111 involve containers. Two examples where *trång* ‘cramped’ combines with a noun referring to a container can be found in (355)–(356).

(355) Ellert var inte tillgänglig för han satt på muggen; husvagnen hade en mycket *trång kemisk toalett*. (B76–77) ‘Ellert was otherwise disposed because he was on the loo: the caravan had a very cramped chemical toilet.’

(356) *Lokalerna* på redaktionen var *trånga*. (B76–77) ‘The editorial offices were cramped.’

In (355), a toilet is described as *trång* ‘cramped’, in other words one room, while in (356) the premises as a whole, probably including hallways, kitchen, stairs etc., are given. In the elicitation test, 10 out of 34 nouns associated with *trång* ‘narrow’ referred to containers. Examples include *rum* ‘room’, *grotta* ‘cave’, *lektionssal* ‘classroom’, *lägenhet* ‘flat’ and *hiss* ‘lift’.

The content of the container is nearly always a human being. There is one example in the corpus of the container being a pot that contains a plant:

- (357) Man skär av rötterna, man låter plantan vegetera i en *trång kruka* med endast litet jord. (B76–77) ‘You cut off the roots, you let the plant take in a narrow pot with just a little soil.’

There is another example where the content is not the whole body, but the hands:

- (358) Han inspekterade handfatet som egentligen inte var något handfat utan en *trång* trattliknande *konstruktion* av plåt. (B76–77) ‘He inspected the sink, which was not actually a sink but a narrow funnel-shaped construction of sheet metal.’

There is also an example where a car is the content. This instance is discussed for another reason below, and can be found as example (374). Cars may be regarded as inalienable possession, which means that the boundaries between the human owner and the possessed object are indeterminate (Heine 1997:34). It is possible to utter a phrase like *Han körde på mig i baken* ‘he ran into my rear’, when referring to one’s own car being hit by somebody else’s car.

This means that only 3 of a total of 111 containers contain something other than the human body. In the elicitation test, all nouns referred to containers inhabited by human beings or that may be (*grotta* ‘cave’, *skreva* ‘crevice’, *bergsskreva* ‘rock crevice’).

It is assumed that a minority of the nouns refer to objects that are not strongly associated with a certain function. These nouns refer to objects that exhibit similarities in terms of shape or potential function. *Bergsskreva* ‘rock crevice’ is one such example.

Furthermore, *trång* ‘narrow’ may combine with a noun referring to an object that functions as a path. This is the case in 33 of 169 instances in the corpus. This type of noun dominated in the elicitation task: 15 of 34 nouns belong to the group: *gång* ‘path’ (8 occurrences), *tunnel* ‘tunnel’ (2 occurrences) and *gränd* ‘alley’ (3 occurrences), *trappa* ‘stair-case’, and *korridor* ‘corridor’. In (359)–(360), two examples of objects functioning as paths are given.

- (359) Vår otympliga karavan trängde sig obehindrat genom *trånga gator* och spred ut sig på tomma torg. (B80–81) ‘Our ungainly convoy forced its way without obstacle through narrow streets and fanned out over empty squares.’

- (360) Av den ståtliga allén återstod endast en *trång gångstig* mellan vedväggarna. (B80–81) ‘All that was left of the magnificent avenue was a narrow footpath between the walls of firewood.’

There are also indoor paths, such as *korridor* ‘corridor’ and *gång* ‘passageway’:

- (361) Hon tog hans rock och tog sedan av sig sin kappa och gick och hängde upp dem i den *trånga gången* mellan rummen. (B76–77) ‘She took his coat and then took off her own coat and went and hung them up in the narrow passageway between the rooms.’

These have been regarded as paths, too, rather than passages, although the borders are not clearly defined, see discussion concerning *smal* ‘narrow/thin’ in section 9.7.2.

The trajector, passing along the path (or intended to) is nearly always a human being, except when it is a vehicle (car or boat):

- (362) Vår comprador gatar något hetsigt och sedan kan vi känna hur vår farkost åter ändrar riktning. Viker han in i en av de små *trånga kanalerna*? (B80–81) ‘Our comprador yells something heated and then we can feel how our boat once again changes direction. Will he turn into one of the small narrow canals?’

Vehicles may be regarded as inalienable possession and therefore perceived as very closely linked with the human body.

The next group of examples consists of instances of *trång* ‘narrow’ combining with nouns referring to objects that function as passages. 17 of 169 instances from the corpus involve passages. In (363)–(364), two of them can be found.

- (363) Vi gick in genom en *trång dörr* och sedan genom en låg stenport, där jag kunde höra mina egna andetag susa som vinden. (B76–77) ‘We went through a narrow door and then through a low stone gateway, where I could hear my own breath whistle like the wind.’
- (364) Omsorgsfullt försökte han lirka in bilen genom den *trånga grindöppningen*. (B76–77) ‘Carefully he tried to inch the car through the narrow gateway.’

In the elicitation test, 7 of the 34 nouns referred to passages: *passage* ‘passage’ (4 instances), *öppning* ‘opening’ (2 instances) and *port* ‘front door/gate’.

The trajector of the passage is a human being or a vehicle. One example, however, concerns dust:

- (365) Enligt den undersökning han just gjort i smyg, fanns det en *trång öppning* strax ovanför golvet där man kunde sopa ut dammet. (B76–77) ‘According to the investigation he’d just carried out secretly, there was a narrow opening right above the floor where you could sweep out the dust.’

### 9.11.2 Number of dimensions

As mentioned in section 9.4, Lafrenz (1983) regards German *eng* ‘narrow’ as referring to one or two inner dimensions. Durrell (1988) writes that *eng* ‘narrow’ refers to one or more dimensions. Lang (1989) claims that when a street is described using German *schmal* ‘narrow’, it is regarded as a two-dimensional area, while *eng* ‘narrow’, implies that it is perceived as a three-dimensional object.

In order to discuss the number of dimensions two issues must be kept separate. The first is how many dimensions the object, described as *trång* ‘narrow’, has. The second how many dimensions are invoked by the description of the adjective.

In dealing with the first of these issues we should consider that the function of the object may hint at how many dimensions it has. Ideally, a container has three dimensions and while a path is a two-dimensional area a passage also has three dimensions, two enclosing the trajector and one the direction of the movement.

As noted in section 9.11.1, the content of the container and the trajector of the path/passage, is most often a human being. For the sake of clarity, I shall start by discussing the path, then move on to the passage and conclude the section with the subject of containers.

The minor horizontal dimension of a path may be of minimal extent in two ways. On the one hand the object functioning as path may be surrounded by more or less free space, like a small footbridge or a girder on a construction-site. Someone considering that the left-right extension is too small to allow him/her to cross or who may be afraid of falling would describe the passage as *smal* ‘narrow/thin’, but not as *trång* ‘narrow’. On the other hand, other objects, such as the walls of buildings or cliffs may border the object that functions as a path. Here it may be impossible for someone to walk along the path because there is not enough room. While in the former case, it is possible to tightrope walk a path of very limited extent in the left-right dimension, in the latter case, if the left-right dimension is too small, passage is impossible. In the former case the path would be described as *smal* ‘narrow/thin’, in the latter as *trång* ‘narrow’ or as *smal* ‘narrow/thin’. For both paths (the girder and the path constricted by walls), a two-dimensional area forms the path itself. However, in the latter case, the constricting walls delimit the path in three-dimensional space. Paths described as *trång* ‘narrow’ thus relate to three-dimensional space. This may be compared to the way that descriptions of two-dimensional areas, such as shelves, as *djup* ‘deep’ actually indicate the amount the shelves will hold. See Chapter 10, section 10.4.6 and also Lakoff and Johnson (1980:29).

In the corpus, the locative preposition used in examples where *trång* ‘narrow’ combines with a noun referring to a path varies between *i* ‘in’, *på* ‘on’, *längs* ‘along’ and *genom/igenom* ‘through’, see (366)–(369). *I* ‘in’ and

*genom/igenom* ‘through’ predominate slightly. The preposition *genom/igenom* ‘through’ indicates that the object is comprehended as a passage. The border between path and passage is fuzzy, as has been noted in 9.7.2.

- (366) ... lyssnar till värjornas klirrande *i trånga*, mörka *gränder*, i slottens välvda salar, i palatsens portar, ser sidenmantlarna svänga, ögon lysa under sammetsbaretter, genom ansiktsmaskens springor, blodet strömma ur sönderrivna jackor... (B76–77) ‘...listen to the jangling of the rapiers in dark narrow alleys, in the vaulted halls of the castle, at the gates of the palaces, see the silk cloaks swing, eyes shining under velvet berets, through the slits of the face masks, blood pouring from jackets torn to shreds...’
- (367) Det kom en amerikansk student till Wien, han tog en taxi, han for och for och slängdes fram och tillbaka *på trånga smågator* mellan stora grå fasader. (B76–77) ‘An American student arrived in Vienna, he took a taxi, he drove and drove and was thrown backwards and forwards on narrow side streets between large grey facades.’
- (368) Jag följde den uniformerade pojken *längs den trånga stålkorridoren*, men jag kunde knappt se honom. (B80–81) ‘I followed the boy in uniform along the narrow steel corridor, but I could hardly see him.’
- (369) Jag följde henne nedför trapporna, över gårdsplanen och *genom en trång gränd* ut på en annan gata. (B76–77) ‘I followed her down the stairs, across the courtyard and through a narrow alley out onto another street.’

It can be noted that the use of *på* ‘on’ and *i* ‘in’ is conventionalised, so that *på* ‘on’ is combined with *gatan* ‘the street’ whereas *i* ‘in’ is combined with *gränden* ‘the alley’, and very seldom the other way around (note, however, *mitt i gatan* ‘in the middle of the street’) (Teleman et al. 1999:Chapter 10, §7).

In the beginning of this section, it was pointed out that the number of dimensions of the object being described forms one issue, while the number of dimensions regarded by the adjective constitutes another. It has been suggested that a three-dimensional space is described for paths, although, strictly speaking, they are two-dimensional surfaces. Even so, only one dimension (the left-right one), is invoked by the adjective. What matters is whether a human being has enough room to traverse the path. For passages, the situation is different.

Passages, ideally, have three dimensions. Two dimensions form the opening, and passage involves traversing the third dimension.<sup>37</sup> In (370), a passage is shown.

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<sup>37</sup> It can be argued that passages have only two dimensions and that the dimension along which the passing takes place is approximated to zero. This would, in such case, indicate a difference between paths and passages. I have, however, worked on the assumption that passages have three dimensions, even if the third dimension along which the passing is performed is small.

- (370) Till en början kungen krypande in genom den *trånga gravöppningen* [...] (B80–81) ‘To begin with the king crawling in through the narrow entrance to the grave [...]

The dimension along which the passage takes place can be rather limited, such as *trång dörr* ‘narrow door’.

The combination of *trång* ‘narrow’ with *gravöppning* ‘entrance to a grave’ in example (364), repeated here as (370), refers to two dimensions (since the king is crawling). The vertical dimension is included here in the dimensions described *trång* ‘narrow’. *Trång* ‘narrow’ may also refer to one dimension, as in example (371). Here, a vertical dimension is not involved in the use of *trång* ‘narrow’.

- (371) Omsorgsfullt försökte han lirka in bilen genom den *trånga grindöppningen*. (B76–77) ‘Carefully he tried to inch the car through the narrow gateway.’

As mentioned in section 9.11.1, the trajectory traversing the passage is either a human being or a vehicle, except in one case in which dust is about to pass an opening.

Finally, containers require discussion. Ideally, they have three dimensions. In the corpus, there are examples such as *trång garderob* ‘narrow wardrobe’, *trång stuga* ‘narrow cottage’ and *den trånga cellen* ‘the narrow cell’. Another example is given in (372).

- (372) [...] porrklubbens *trånga* och illa belysta *toalett* [...] (B80–81) ‘[...] the porno club’s cramped and poorly lit toilet [...]

There are a few instances in the corpus, where *trång* ‘narrow’ collocates with a noun referring to a surface or a place with fuzzy borders. Starting with surfaces, collocations such as *trång bakgård* ‘narrow back-yard’, and *trång skolgård* ‘narrow school-yard’, are well-formed:

- (373) Emmet Stones Grundskola. Den låg innanför en *trång skolgård*, inte långt ifrån boulevarden med sina dundrande långtradare – en trevåningsbyggnad av mörkstrimmigt tegel, tung och beskyddande och upphetsande som ett fängelse, med källarfönster vars ogenomskinliga rutor och lätt buktande järngaller var alldeles nerstänkta med lera. (B80–81) The Emmet Stone Primary School. It was surrounded by a narrow schoolyard, not far from the boulevard with its thundering lorries – a three-storey building in dark streaky brick, ponderous and protective and as exciting as a prison, with basement windows whose opaque panes and lightly curved iron gratings were completely spattered with mud.’

Here, the surface is delimited by vertical boundaries. In the corpus, there are 5 such instances (of a total of 169). They can be compared to the way in which two-dimensional areas that function as paths are described in relation to a three-dimensional space.

Some examples of places with fuzzy borders can be seen in (374)–(378).

- (374) Jeepen hade stannat på en *trång grusplan* bakom något som verkade vara en utomhusteater. (B76–77) ‘The jeep had stopped on a narrow gravelled area pitch behind something that seemed to be an outdoor theatre.’

In the first example, see (374), the preposition *på* ‘on’ is used, which indicates that the object referred to as *grusplan* ‘gravelled area’ is perceived as two-dimensional. If *trång* ‘narrow’ replaces *smal* ‘narrow/thin’ in (374), information regarding a certain shape (or rather extension) is added. *Trång* ‘narrow’ includes no such information. Since the persons in the text are travelling in a jeep, *trång* ‘narrow’ may indicate that there is little room for it to turn, park, etc. The context includes no information regarding walls or other objects constricting the area.

The next interesting case concerns a dance-floor which is a two-dimensional surface, and where again the preposition *på* ‘on’ is used:

- (375) Efter att ha suttit vilset smuttande på dålig whisky i mörkret vid ynkliga små bord reste de sej på en gång och vällde upp på det *trånga dansgolvet*. (B80–81) ‘After having sat at a loss sipping poor whisky in the dark at tiny tables, they stood up at the same time and rushed onto the narrow dance floor.’

The adjective *trång* ‘narrow’ refers to the fact that the dance-floor is crowded with other people. The space available for somebody to enter the dance-floor is limited because of the presence of these other people. This use has resemblance to the use of *tjock* ‘thick’ to describe gas or liquids: numerous particles/elements distributed in a limited space. In fact, it is not uncommon to use *trång* ‘narrow’ to describe a two-dimensional area in terms of number of people there. When an area is busy or crowded it can be described as *trång* ‘narrow’. Apart from other people, such entities as traffic, buildings or other objects may also qualify an area for the description *trång* ‘narrow’:

- (376) I Barnängen var förhållandena betydligt bättre än inne i den *trånga staden* (B80–81) ‘In Barnängen the conditions were considerably better than inside the crowded city.’

- (377) [...] bordet skranglade med benen och täcktes på sin *trånga skiva* av ingrodda kafferingar och repor i skiftande mönster härs och tvärs [...] (B80–81) ‘[...] the table wobbled and the narrow tabletop was covered in ingrained rings from coffee cups and scratches in varying patterns all over [...]’

In (376), 18th-century Stockholm is described as *trång* ‘crowded’, probably referring to people, including the homeless and beggars, horses and carriages, garbage and so forth. In (377), the tabletop appears empty, since scratches and marks are visible. Here, a canonical functional situation of putting cups and plates, food etc. on the table is evoked and presumed by the adjective *trång* ‘narrow’. *Trång* ‘crowded’ may also be used in a construction such as *det är trångt (här)* ‘it’s crowded (here)’, *det var trångt om plats* ‘there wasn’t much room’, *München var trångt* ‘Munich was

crowded’ as cited by the dictionaries, see section 9.3. Examples of this type have not been incorporated in the corpus, since the subject is only expressed by *det* ‘it’ and the actual reference in some cases is unclear (see Chapter 4, Data and methodology). However, it is interesting to note that when used in such constructions, *trång* ‘narrow’ mainly indicates lack of room because of the presence of other people.

Further, an example, where a spot in a bed is described as *trång* ‘narrow’, is shown in (378).

- (378) Stina slet av sig kläderna, kröp ned på den *trånga platsen* vid hans sida och somnade ögonblickligen för att stiga upp efter tvenne timmar. (B80–81)  
 ‘Stina tore off her clothes, crept down in the narrow spot next to him and fell asleep straight away to get up a couple of hours later.’

Here, too, the preposition *på* ‘on’ is used, which indicates that the spot, referred to as *den trånga platsen* ‘the narrow spot’ is perceived as a two-dimensional surface. However, another sleeping body probably forms a side, thus creating a three-dimensional space.

As mentioned in section 9.11.2, the use of the prepositions *i* ‘in’ and *på* ‘on’ is strongly conventionalised (Teleman et al. 1999:Chapter 10, §7).

Moreover, there are 5 instances where furniture is regarded as *trång* ‘narrow’. One is given in (379).

- (379) Att tänka sig att nån människa har satsat en förmögenhet på den smörjan som jag såg, och att folk sen betalar dyra pengar för att sitta inklämda på de *trånga bänkarna* – herregud, ett tjockt fruntimmer satt bredvid och stödde en arm som ett fårlår mot armstödet mellan oss hela tiden. (B76–77) ‘To think that someone has invested a fortune in that rubbish I saw, and that people then pay good money to sit jammed in the cramped seats – my god, a fat woman next to me supported her arm like a leg of mutton against the armrest between us the whole time.’

In (379), again, the preposition *på* ‘on’ is used, indicating perception of the object as a two-dimensional surface. However, the boundaries delimiting the surface are mentioned, too, in the reference to the elbow-rest. The seat may be regarded as a container.

There are four more examples, where beds, or couches used as beds, are described as *trång* ‘narrow’. Beds are usually not delimited by vertical surfaces, but are described as *trång* ‘narrow’ anyhow:

- (380) Han lapade i sig dagarnas skum och det erbjuder mig inga svårigheter alls att se Henri le boulevardier vakna upp i en *trång säng*, gnugga fingrarna i ögonen, kasta en trött blick ut över plåttaket där duvslagets kutter kunde väcka en medvetlös, stiga upp, tvaga sig med det kalla vattnet och sedan duka upp en kontinental frukost. (B80–81) ‘He drank in the froth of the days and I have no difficulties at all seeing Henri le Boulevardier wake up in a cramped bed, rub the sleep out of his eyes, glance wearily across the tin roof where the cooing from the dovecot could wake the dead, get up, wash in the cold water and then lay the table for a continental breakfast.’

In (380), the preposition *i* ‘in’ is used, which indicates that the object is comprehended as a container. I have counted all five examples concerning furniture as containers, even if some are borderline-cases.

For Swedish, it seems that *trång* ‘narrow’ may describe one or two dimensions, but only internal dimensions. It seems as if three dimensions are required to enable an object to be described as *trång* ‘narrow’, or that it must be related to three-dimensional space, like a path constricted by walls.<sup>38</sup>

### 9.11.3 The relationship of *trång* ‘narrow’ and *smal* ‘narrow/thin’.

As mentioned in section 9.11.1, *trång* ‘narrow’ combines with nouns referring to objects that function as containers, paths and passages. *Smal* ‘narrow/thin’ combines with nouns referring to objects that function as paths or passages, objects that resemble paths or passages in shape, or cylindrical objects which may display some resemblance in shape to cylindrical paths, including the human body, see section 9.7.1. For *trång* ‘narrow’, this function is more important than for *smal* ‘narrow/thin’. *Trång* ‘narrow’ may describe objects of any shape, while *smal* ‘narrow/thin’ may not. *Smal* ‘narrow/thin’ may refer to internal and external measurements while *trång* ‘narrow’ may only refer to internal ones.

Both *trång* ‘narrow’ and *smal* ‘narrow/thin’ may therefore refer to paths. It has already been noted that when the adjective *trång* ‘narrow’ is used about a path, it has some vertical limits on both sides, see (381), while this need not be the case for *smal* ‘narrow/thin’, see (382).

(381) Av den ståtliga allén återstod endast en *trång gångstig* mellan vedväggarna.  
(B80–81) ‘All that was left of the magnificent avenue was a narrow footpath between the walls of firewood.’

(382) Han tog fram de nya skorna ur sitt knyte och satte dem på sig och följde sedan en *smal vildvuxen stig*. (B76–77) ‘He took out the new shoes from his bundle and put them on and then followed a narrow overgrown path.’

In (381), the pathway is limited by walls on either side, while in (382), the pathway is in the forest.

When used for passages, *smal* ‘narrow/thin’ either describes cylindrical objects with internal dimensions, see (383), or cuboid-shaped objects with internal dimensions, see (384).

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<sup>38</sup> If lines enclose an area, these may be described to as *trånga*, but this is more in non-spatial uses: innanför Sveriges *trånga gränser* ‘within the narrow confines of Sweden’. First, the borders of Sweden have a metonymic relation to the surface of Sweden, and then the surface is comprehended as a container (see Lakoff and Johnson 1980:30). This can be compared to the use of *vid* ‘broad’ to describe lines which enclose (partially or totally) an area, such as *vida bågar* ‘wide arcs’, see Chapter 7 on *vid* ‘broad’.

(383) Men basuner har de, förstår du, var sin lång, *smal basun* ut i luften. (B80–81)  
‘But they’ve got trombones, you know, each a long, thin trombone up in the air.’

(384) *Köksdörren* var för *smal*. (B76–77) ‘The kitchen door was too narrow.’

*Smal* ‘thin’ refers to two dimensions of passages formed by cylindrical objects. If they are not cylindrical but cuboid-shaped or square-shaped, *smal* ‘narrow/thin’ refers to one dimension, the (smaller) horizontal one.

The passages which are described as *trång* ‘narrow’ do not always have prototypical shapes:

(385) Joe gjorde gångens yttre ände tjock och stark och hällde på mycket vatten så att det blev en *trång öppning* i en tung kaka av nästan fast is. (B76–77) ‘Joe made the outer end of the pathway thick and strong and poured on a lot of water so that it made a narrow opening in a heavy slab of almost solid ice.’

Apart from the opening of (384), the passages that combine with *trång* ‘narrow’ in the corpus are *dörr* ‘door’, *lucka* ‘cage door’, *pass* ‘pass’ (3 occurrences), *portvalv* ‘door vault’, *farled* ‘channel’, *gravöppning* ‘entrance to a grave’, *glugg* ‘hole in the wall’, *fönster* ‘window’ (2 occurrences) and two more cases of *öppning* ‘opening’. In two cases, (*lucka* ‘cage door’ and *öppning* ‘opening’), a tiger passes through the opening. Here, it is probable that *trång* ‘narrow’ refers to a minimal extension of both the horizontal dimension, and the vertical one. This is probably the case for the two other cases of *öppning* ‘opening’, as well. In the remaining instances, *trång* ‘narrow’ seems to refer to a horizontal dimension only:

(386) Vi gick in genom en *trång dörr* och sedan genom en låg stenport, där jag kunde höra mina egna andetag susa som vinden. (B76–77) ‘We went through a narrow door and then through a low stone gateway, where I could hear my own breath whistle like the wind.’

The cylindrical passages which are described as *smal* ‘thin’ seems to admit smaller-sized things, while human beings and animals may traverse passages which are described as *trång* ‘narrow’, and which have a cylindrical or an irregular shape. There are no examples of cylindrical passages which are traversed by a human being in the corpus, but in example (387), it can be seen that such a sentence is well-formed.

(387) Jag kröp in genom ett runt, *trångt hål*. (constructed) ‘I crept in through a round, narrow hole.’

Passages which are described as *trång* ‘narrow’ do not however admit objects of a very small size:

(388) ?Jag pressade luften genom en *trång slang*. ‘I squeezed the air through a narrow tube.’

Doors, gates, and windows may be referred to as either *trång* ‘narrow’ or *smal* ‘narrow/thin’. I can see no differences in what the adjectives refer to when used like this.

Finally, it may be added that *trång* ‘narrow’ always describes an object that does not function optimally because one or more of its dimensions is too small.<sup>39</sup> Metaphorically, *trång* ‘narrow’ describes something unpleasant. The metaphors can evoke feelings of suffocation, restriction and imprisonment. *Smal* ‘narrow/thin’ does not have these consistently negative meanings when used metaphorically. In the metaphor *en smal sak* ‘a narrow thing’, the meaning is that a task is easy to perform. Another metaphor using *smal* ‘narrow’ is about cultural phenomena like films or books that do not appeal to a wider audience but are rated highly according to some high prestige norm.

#### 9.11.4 The relation of *trång* ‘narrow’ and *vid* ‘broad’

Since the semantics of *vid* ‘broad’ have a clear focus on passage, *trång* ‘narrow’ and *vid* ‘broad’ have an antonymous relation in these uses. While *vid* ‘broad’ is regarded a complex category, *trång* ‘narrow’ is not. For paths the antonym of *trång* ‘narrow’ is *bred* ‘broad/wide’ rather, although *trång* ‘narrow’ focuses on the three-dimensionality of the object while *bred* ‘broad/wide’ focuses on its two-dimensionality. The antonym of *trång* ‘narrow’ for containers would be *rymlig* ‘roomy, spacious’, which is suggested by three of the dictionaries, see section 9.3. Thus, *vid* ‘broad’ and *trång* ‘narrow’ are not full antonyms.

#### 9.12 Summary of *smal* ‘narrow/thin’, *tunn* ‘thin’ and *trång* ‘narrow’

*Smal* ‘narrow/thin’ and *tunn* ‘thin’ are considered complex categories, while *trång* ‘narrow’ is not. For *smal* ‘narrow/thin’, two cases are equally strong: one in which *smal* ‘narrow/thin’ describes a path and another, where it describes cylindrical objects, mainly human beings or body parts. Another case involves *smal* ‘narrow/thin’ describing objects that function as passages. It can be noted that cylindrical objects resemble (cylindrical) passages in shape. Yet another case is where *smal* ‘narrow/thin’ describes objects which exhibit similarities in shape to paths. For *tunn* ‘thin’, the central case is a use in which *tunn* ‘thin’ refers to the minimal dimension of an object, which is also at the same time the dimension grasped in order to

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<sup>39</sup> In some contexts, though, lack of space is regarded as positive, as in *Det är bara mysigt att sitta lite trångt* ‘It’s actually nice and cosy to huddle up’, implying that it is nice to have body contact with other people.

manipulate it. Moreover in the central case, *tunn* ‘thin’ includes information about the degree of resistance. Other cases lack one or two of these characteristics.

The prototypical use of *trång* ‘narrow’ combines the adjective with a noun referring to a path, passage or container for a human being. Less prototypical uses involve objects that are surfaces perceived as containers and passages, for which *trång* ‘narrow’ invokes only one dimension, as is the case with *trång dörr* ‘narrow door’ as opposed to *trång öppning* ‘narrow opening’. When only one dimension is invoked, *trång* ‘narrow’ and *smal* ‘narrow/thin’ overlap.

*Smal* ‘narrow/thin’ may describe internal and external measurements, *tunn* ‘thin’ external measurements only, while *trång* ‘narrow’ may describe only internal measurements.

*Smal* ‘narrow/thin’ is antonymous with both *bred* ‘broad/wide’ and *tjock* ‘thick’. The antonym for areas, flat objects and cuboids is *bred* ‘broad/wide’ while *tjock* ‘thick’ is used for cylinders. I would rank the degree of antonymy for *bred–smal* ‘broad/wide–narrow’ as rather high compared to other adjective pairs, where *tjock–tunn* ‘thick–thin’ rank the highest, followed by *lång–kort* ‘long–short’. The remaining adjectives, including *vid–trång* ‘broad–narrow’ rank below *bred–smal* ‘broad/wide–narrow’. *Trång* ‘narrow’ has antonymous relations not only to *vid* ‘broad’, but also to *bred* ‘broad/wide’ and *rymlig* ‘roomy, spacious’.

Even if *tjock–tunn* ‘thick–thin’ exhibits the greatest degree of antonymy, at least three differences between the adjectives have been determined. First, *tjock* ‘thick/fat’ describes human beings, while *tunn* ‘thin’ does not to the same extent. The opposite of *en tjock människa* ‘a thick human being’ is rather *en smal människa* ‘a thin human being’. Secondly, objects described as *tjock* ‘thick’ are held and manipulated to a greater degree than objects described as *tunn* ‘thin’. Thirdly, *tjock* ‘thick’ may possibly refer to three dimensions as in *en tjock klump* ‘a thick lump’ while *tunn* ‘thin’ may not. And finally, some nouns that collocate with *tunn* ‘thin’ do not collocate with *tjock* ‘thick’, such as *tunt regn* ‘fine rain’, \**tjockt regn* ‘thick rain’.

## 10 The semantics of *djup* ‘deep’ and *grund* ‘shallow’

The purpose of this chapter is to give a thorough and detailed account of the meaning of the dimensional adjectives *djup* ‘deep’ and *grund* ‘shallow’. The adjective *djup* ‘deep’ is either unmarked, or marked. In the latter case, it indicates a great extension. *Grund* ‘shallow’ is marked. In addition, the relationship between *djup* ‘deep’ on the one hand and *grund* ‘shallow’, *flat* ‘flat’, *platt* ‘flat’, and other possible antonyms will also be dealt with. Both the dimensional and the positional use of *djup* ‘deep’ and *grund* ‘shallow’ will be studied. A minor discussion comparing the adjective *djup* ‘deep’ with *hög* ‘high/tall’ and with *tjock* ‘thick’ will also be included.

In this chapter I will both present data that concurs with earlier analyses on DEEP and SHALLOW, and introduce new ideas that rebut earlier research to some extent. My main contribution involves the presumed “direction” of DEEP and SHALLOW. This direction, often labelled as DOWNWARD and/or INWARD has been assumed although not discussed in detail in related literature. My analysis suggests that the basis for this direction is to be found in the intimate relationship of DEEP and SHALLOW to the concept of containment. I shall also discuss what typical objects that are described as DEEP and SHALLOW. Among these object types “loose solid substances” is prominent and interesting, since DEEP and SHALLOW do not function as antonyms when describing them.

### 10.1 *Djup* ‘deep’ in the dictionaries

All five dictionaries start by making a distinction between what can be referred to as vertically *djup* ‘deep’ and what can be referred to as horizontally *djup* ‘deep’ (my terms). Some dictionaries refer to the vertical dimension of *djup* ‘deep’ as the extension between surface and bottom (Illustrerad svensk ordbok, NEO, Bonniers svenska ordbok). SAOB formulates this differently and writes about “insänkning” ‘depression’ or “stor utsträckning nedåt” ‘great extension downward’ and about an extension “som går eller räcker långt ned” ‘which goes or reaches far down’. Within brackets, “öfre yta” ‘upper surface’ is mentioned.<sup>40</sup> This means that SAOB is the only dictionary to mention *nedåt* ‘downwards’ while the other dictionaries describe the extension as going between surface and bottom. In dealing with horizontal *djup* ‘deep’, all five dictionaries use the word *inåt* ‘inwards’ to describe this dimension. SAOB is the only dictionary that

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<sup>40</sup> The spelling of *öfre* ‘upper’ is obsolete.

mentions that this dimension starts from the surface or from the front. Starting from a front, the dimension extends backwards, according to the dictionary.

According to NEO, the object described as *djup* ‘deep’ is not massive. SAOB, on the other hand, states that the adjective describes something with “en insänkning” ‘a depression’. An object of this kind may be viewed as non-massive, although SAOB’s description can be interpreted as additionally implying the concept of an open top. This is not necessarily the case for a non-massive object (think of a birdcage, which is a non-massive object, having no open top).

All the dictionaries except Bonniers svenska ordbok offer the collocation of *djup* ‘deep’ with *skog* ‘forest’. SAOB both discusses the weak form as in *i djupaste skogen* ‘in the depths of the forest’ and the strong form *djup skog* ‘deep forest’ as does Illustrerad svensk ordbok. Nusvensk ordbok only treats the weak form in the example *i djupaste skogen* ‘in the depths of the forest’ but it also records the adverbial use of *djup* ‘deep’ in the example *djupt inne i skogen* ‘deep in the forest’. NEO gives the same example *djupt inne i skogen* ‘deep in the forest’. According to SAOB, *djup* ‘deep’ (weak form, my interpretation) + *skog, ödemark* ‘forest, wilderness’ means “långt (längst) in l. bort belägen del af (en skog o.d., [...]): där det är långt ut igen” ‘part of the wood, which is located far or furthest in, far or furthest away, etc., [...]: where it is far out again’.

Two of the dictionaries record *djup tallrik* ‘soup plate’. These are SAOB and Nusvensk ordbok. Both dictionaries give *flat* ‘flat’ as the antonym.

One of the dictionaries, Illustrerad svensk ordbok, notes that *djup* ‘deep’ can mean “som ligger i tjockt lager” ‘which exists in a thick layer’. Other dictionaries give examples of such substances. SAOB gives the example *djup snö* ‘deep snow’, Nusvensk ordbok gives the examples *lerlager* ‘layer of mud’, *mylla* ‘topsoil’, and *sand* ‘sand’, NEO gives the examples *djup snö* ‘deep snow’ and the adverbial use of *djup* ‘deep’ in *sjunka djupt ner i sanden* ‘to sink deep into the sand’.

SAOB is the only dictionary that gives a positional meaning of *djup* ‘deep’ apart from the dimensional one (my terms).

## 10.2 Related research in the past

The related research can be divided into two main categories. The first involves studies of the adjectives DEEP. The second category includes studies treating containment.

### 10.2.1 Related research in the past on DEEP

According to Bierwisch (1967), German *tief* ‘deep’ should be understood as including information about both shape and perspective. The object de-

scribed as *tief* ‘deep’ is not plain. The adjective describes one dimension. The described dimension is along the axis on which the object is normally related to its observer or user. The axis may be vertical, as in *das Meer ist tief* ‘the sea is deep’, but this is a contextual application and is not part of the semantics of the adjective. The axis may be horizontal as in *der Schrank ist tief* ‘the cupboard is deep’ (Bierwisch 1967:17).

Clark (1973) writes that English *deep* presupposes a three-dimensional application, and that it means, roughly, “distance into something from its surface” (Clark 1973:39).

According to Fillmore (1997), the English adjective *deep* has two uses.<sup>41</sup> A lot on which a house will be built exemplifies the first use. The lot is referred to as *75 feet deep*. The extension that the measure phrase refers to is the front-to-back distance. The other use concerns the top/bottom axis of objects. If the base-line vertical extremity is the top of an object, the top-to-bottom dimension is described as *deep*. A pond or a well is *deep* (Fillmore 1997:39).

Lyons (1977) proposes that English *deep* can be assigned to a dimension in three different ways. The first possibility is that *deep* is the dimension with the third biggest extension. For a three-dimensional object, this will be the smallest dimension. Only hollow objects are described as *deep*, while *thick* is used for the same dimension of solid objects. An alternative to this description is to call the vertical dimension, going downwards from a point of reference (often the ground), *deep*. Yet another possibility is to describe an object with an inherent or canonical front as *deep*. If used in this way, *deep* will refer to the dimension from front to back. Again, only hollow objects are described by *deep* while *thick* is used for solid ones (Lyons 1977:701–703).

In Galeote et al. (1999) adult performance regarding the naming of dimensional adjectives is studied. It takes Lyons (1977) as its starting point. Spanish-speaking adults are asked to describe objects and their use of dimensional adjectives is examined. The results show that the test persons very often deviate from the expected description (as laid out by Lyons). Instead of describing an object as WIDE and DEEP, for instance, a person will use LONG and WIDE. In Galeote et al. it is further suggested that DEEP is the most complex of the dimensional adjective (the “most difficult” to acquire etc.). This concurs with Hene (1993). According to the study, at the age of 10–12 children find Swedish *djup* ‘deep’ difficult to pair with an antonym, compared to the other dimensional adjectives for which antonyms come more readily.

Lafrenz (1983) studies German *tief* ‘deep’. According to his analysis, *tief* ‘deep’ refers to a direction towards an inner space, either enclosed (“um-

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<sup>41</sup> Although not published until 1997, the contents of Fillmore (1997) were given as a lecture series in the summer of 1971 in Santa Cruz.

schlossener Hohlraum”) or open (“offener Hohlraum”). The adjective may also refer to a liquid.

According to Lang (1989:354–355), German *tief* ‘deep’ describes an object’s dimension “along the line of sight of a (potential or actual) observer in normal position” (Lang 1989:355). This dimension might (but need not) at the same time be vertical. By vertical Lang means the extension along the gravitation lines. Moreover, Lang (1989) reflects upon the relationship between *hoch* ‘high’ and *tief* ‘deep’. Lang claims that *tief* ‘deep’ and *hoch* ‘high’ can be synonymous.

According to Lang, a brick can be described as *tief* ‘deep’ regarding the dimension along the line of sight of an observer. This, however, is questioned by Weydt and Schlieben-Lange (1998). The authors claim that *tief* ‘deep’ describes a third dimension only when the object has internal dimensions. A cuboid or a block can be described by *Länge* ‘length’, *Breite* ‘width’ and *Tiefe* ‘depth’, but this description should be considered technical and is rarely incorporated in common language. Besides, (*Material*) *Stärke* has nowadays supplemented *Tiefe* ‘depth’.

In Weydt and Schlieben-Lange (1998) disagreement with the importance of the observer’s axis is also expressed. According to the authors, such an axis cannot represent a constitutive characteristic of the description of *tief* ‘deep’. Wounds can be described as *tief* ‘deep’ no matter where the observer is located (for example on the speaker’s back).

Lang (2001) ties the parameter *obs* to the English adjective *deep* ‘deep’. *Obs* identifies an extent of an object as the one that is aligned with the observer axis of the Primary Perceptual Space. The Primary Perceptual Space is founded in the upright walk, the equilibrium and the eye level of the human body. Apart from the observer axis, the vertical axis and the across axis form part of the space. (Lang 2001:1253–1254.) Thus the definition is rather close to that of Lang (1989). The novel part of this analysis consists of the typological survey which groups languages into proportion-based languages, observer-based languages and proportion/observer-mixed languages.<sup>42</sup>

According to Lang, proportion-based languages use the *obs* terms to describe hollow (parts of) objects. A cavity is the basis of the dimension assignment, and the observer-axis plays the role of specifying the way in which the cavity is assigned a dimensional extent. The standard case to be covered by the *obs* term is a dimension which is parallel to the vertical

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<sup>42</sup> Lang (2001) distinguishes between proportion-based and proportion-fixed as well as between observer-based and observer-fixed languages, where the languages of the “fixed”-type are more strictly into one of the two systems (proportion or observer), and the languages of the “based”-type have a majority of the uses in one of the systems. This distinction does not seem to play any major part for my study, which is why I give the correct term when citing Lang without detailed discussion of the difference between basedness and fixedness.

dimension but which is directed downward, whereas the vertical dimension has an upward direction.

Observer-fixed languages, on the other hand, may have two lexically disjoint subsets of obs terms. This is the case for Korean. One term (*kiphi* ‘deep’) involves no observer, while the other term (*selo* ‘deep’) involves an observer, normally in upright posture, in such a way that the observer’s line of sight provides the axis along which the object’s dimension is identified.

In proportion/observer-mixed languages, such as English and German (and Swedish, too, according to a parenthesis in Lang 2001:1266), the obs term shows a gradual shift from being proportion-based, which means the obs term can apply to hollow objects only, to observer-based. The obs term can both apply to a dimension which is parallel to the vertical dimension, having an opposite direction (downward instead of upward), and to a dimension which is orthogonal to the vertical dimension. A kind of “final stage” seems to have been reached when the obs term in a proportion/observer-mixed language applies to a two-dimensional object, such as a plot of land.

There is a relation between what the across term can express in a language and what the obs term expresses. If the across term includes the observer axis as a value (i.e. if it can be used for a dimension derived from the observer axis, orthogonally for instance as is the case for English *wide* since it can describe the left-right dimension, which in turn is orthogonal to the observer’s front-back axis), then the obs term is freed from proportion-based selectional restrictions (which means the object it describes need not be a cavity).

According to Spang-Hanssen (1990), French *profond* ‘deep’ may describe an object with an open side. The dimension should belong to the inside of the object and it should extend along the spectator’s line of sight. A non-open object with a closed side may also be described as *profond* ‘deep’. The dimension perpendicular to the closed side is called *profondeur* ‘depth’. This time, the dimension does not belong to an internal space but to external dimensions (Spang-Hanssen 1990:304–307).

Stolz (1996) treats Yucatec Maya *táam* ‘deep’. The results identify three different uses of *táam* ‘deep’. The first, which is generally accepted among the informants, refers to the observer axes of water, earth, depression or containers, all of them perpendicular to the horizontal surface (or some other reference surface). These axes go downwards. The second use is more contested by the informants. This use refers to an observer axis which is oriented horizontally. It describes man-made or natural containers. The third use is even more contested. This use describes enclosed two-dimensional surfaces. As in the second use, the observer axis is oriented horizontally. The axis described as *táam* ‘deep’ must be the maximal one. The first use allows an antonym to describe the dimension, while the second and third uses do not allow the use of antonyms. Instead, the adjective *táam* is negated (see section 10.6.2). The object described as *táam* ‘deep’ is

optically or mechanically penetrable along the axis aligned with the observer's line of vision. (Stolz 1996:220–227.)

Wienold and Rohmer (1997), a typological study that surveys 31 languages, defines a DEEP object as either containing empty space (such as a hole), or as being a liquid contained in space (such as a lake). Some languages lexicalise these two subcategories differently. Further, some languages have the same expression for both DEPTH and HEIGHT. The Latin *altus* is one such example. Finnish has the adjective *matala* meaning both 'shallow' and 'low', and the same phenomenon occurs in Bontok, where *ateppew* means 'shallow/low' (Wienold and Rohmer 1997).<sup>43</sup>

Grzegorzczkowska (1997) presents a preliminary analysis of Polish *głęboki* 'deep'. She suggests that *głęboki* 'deep' unites two concepts. The first involves a dimension extending from an opening or a surface inward to the bottom of an object. This dimension is vertical. The second concept involves a dimension extending in from an opening towards a wall. Examples of this use would be *głęboka grota* 'deep cave' and *głęboka rana* 'deep wound' (Grzegorzczkowska 1997:102).

Linde-Usiekniewicz (in manuscript) studies the Polish dimensional adjectives *głęboki* 'deep' and  *płytki* 'shallow'. She studies only the vertical sense of *głęboki* 'deep' and  *płytki* 'shallow' (i.e. when the adjectives are used about vertical extensions/positions). According to Linde-Usiekniewicz, *głęboki* 'deep' and  *płytki* 'shallow' describe the observer axis. Further, *głęboki* 'deep' and  *płytki* 'shallow' are analysed in relation to two participants: Host and Intruder, where the participants should be understood as inanimate or animate units. Linde-Usiekniewicz gives a definition of Host which reads: "A host is an object whose presence in space is compatible with the possibility of some other objects being present in the same space [...]" (Linde-Usiekniewicz in manuscript:section 2.3). These participants can be related to the concept of containment in the sense that a Host has something inside it, corresponding to a container, and the Intruder in invading a space corresponds to a content. Although the term Intruder definitely has more active connotations than the term content, as will be mentioned in 10.2.2, Vandeloise (1994) suggests a motion pattern for container and content where the content moves towards the container just as the Intruder would move toward the Host. In what follows, I have replaced Linde-Usiekniewicz's Host and Intruder with the terms container and content. The first use of *głęboki* 'deep' and  *płytki* 'shallow', as in *głęboka/płytki dziura* 'deep hole', contains information about the measurement of the extension of the container. The second use of *głęboki* 'deep' and  *płytki* 'shallow', as in *głęboka/płytki warstwa tynku* 'deep/shallow layer of plaster', relates to the position of the content. The third use of *głęboki* 'deep' and  *płytki* 'shallow', as in *głęboki/płytki system korzeniowy* 'deep/shallow root system' refers to the measurement of the extension of

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<sup>43</sup> Bontok is spoken in the Philippines.

the content. The fourth use of *głęboki* ‘deep’ and *plytki* ‘shallow’, as in *głęboki/plytki śnieg* ‘deep snow’, is about the capacity of the container.

In Weydt and Schlieben-Lange (1998) a system for the German dimensional adjectives is proposed. The paper introduces the idea that speakers construct images of three-dimensional objects in subsequent steps. According to the authors, three-dimensionality is first broken up into two-dimensionality to which a third dimension is added. For example, in the first step a mat is perceived as two-dimensional (where the two dimensions parallel with the floor are counted) and then in the second step it is seen to have a third dimension (the vertical one). Alternatively, three-dimensionality can be broken up into one-dimensionality and then, after the perspective has changed, the construction of a two-dimensional image begins anew. An example to illustrate this would be a pencil, for which the maximal dimension dominates the first step, while the two minimal dimensions are not constructed until the second step. The adjective *tief* ‘deep’ can, together with *hoch* ‘high’ and *lang* ‘long’ be used for the first dimension. *Tief* ‘deep’ is used for penetration of an interior. When used about the “first dimension” (the first step of the sequence), *tief* ‘deep’ can describe a hole or a crevasse. But *tief* ‘deep’ can also describe a third dimension, which is not constructed until the second step. This is the case when shelves are described. These are characterised as *hoch* ‘high’ and *breit* ‘broad/wide’ in the first step, and then, in the second step, *tief* ‘deep’ is added. Furthermore, the study demonstrates what nouns (concrete and abstract) informants think go well together with the dimensional adjectives. For *tief* ‘deep’, the top list of concrete nouns include: *Loch* ‘hole’, *Meer* ‘sea’, *See* ‘sea/lake’, *Brunnen* ‘well’, *Wasser* ‘water’, and *Schlucht* ‘ravine’. The adjective *tief* ‘deep’ denotes, according to the study, a value on an axis. The axis goes from a reference surface into the inner part of the relevant object. Part of its meaning is that this movement is in the direction of the inside or interior. The authors point out that a hole going all the way through an object (like a hole going through a wall) is not described as well by *tief* ‘deep’ as a hole that only reaches the centre of the object. Moreover, the study claims that strictly speaking, *tief* ‘deep’ is not a dimensional adjective since it has no antonym indicating deficient extension on the axis. The adjectives *seicht* ‘shallow’ and *flach* ‘shallow’ are not approved of as real antonyms.

Rakhilina (2000) studies Russian *glubokij* ‘deep’. This adjective is used about containers, layers on the ground, and about objects located at great depth. With regard to containers, Rakhilina states that *glubokij* ‘deep’ is used about containers of a fixed shape, which is why a river and a box, but not a sack, may be described as *glubokij* ‘deep’. Containers whose contents are inserted, or extracted are described as *glubokij* ‘deep’. If, on the other hand, contents are poured into or out of a container, or poured out from a container, the container it is not described as *glubokij* ‘deep’. A well and a bowl are described as *glubokij* ‘deep’ but not a cup or a test-tube. The container may also be rotated horizontally, as is a cave. In some cases, the

container may have another orientation, like the sky, which may also be described as *glubokij* ‘deep’. Rakhilina points out that furniture may be viewed as containers and described as *glubokij* ‘deep’, like an armchair or a couch. Moreover, substances that cover the ground in the form of a layer, such as water, snow and sand, can be described as *glubokij* ‘deep’. Substances that do not form layers are not described as *glubokij* ‘deep’, so that nouns referring to rain or sweat may not combine with the adjective. Nor are substances that form layers on some surface other than the ground described as *glubokij* ‘deep’. Hence, porridge or soup are not described as *glubokij* ‘deep’. Finally, Rakhilina focuses on another use. Objects located at great depth may be described as *glubokij* ‘deep’, such as roots. A collocation like *glubokie xody* ‘deep subways’ is ambiguous. It may either refer to subways located at great depth or which protrude deep into the ground. The positional sense of *glubokij* ‘deep’ may only describe objects which are located on a more permanent basis. This is parallel to Rakhilina’s description of Russian *vysokij* ‘high’, see Chapter 5 on *hög* ‘high/tall’, section 5.2.1. According to Rakhilina, the bottom is an important aspect for *glubokij* ‘deep’. In its positional sense, the object, located at great depth, forms the bottom. Overall, the extension, described as *glubokij* ‘deep’ is measured by an observer located at the opening of the container. The extension is measured to the bottom and, in cases where something is extracted from the container, then back up again.

### 10.2.2 Related research in the past on containment

Clark (1973) elaborates the concept of container in relation to depth. He writes that an object to which depth is applied should be thought of as a container with a definable surface and an interior dimension. Further he states that the earth is commonly taken to be a container. In this case, the ground level is its surface. Depth is the vertical distance downward from the surface (ground level) (Clark 1973:39).

Herskovits points out that the interior of containers is generally delimited by a plane through the rim (Herskovits 1986:69).

The concept of “container” is widespread in the linguistic literature, not the least in the field of cognitive linguistics. What really constitutes a container is not, however, evident. My understanding is that most authors seem to equate a use of spatial *in* with the locative as conceptualisation of a container (see Clark 1973, Lakoff 1987, Talmy 1983), here, however, Herskovits (1986) and Sinha and Thorseng (1995) are exceptions. According to Herskovits (1986), there are five different situations that can be described by the preposition *in*, of which “spatial entity in container” is only one. In this case a container is a three-dimensional object with an interior in which the located object, also three-dimensional, is fully or partly contained. An alternative situation is, for example, a gap/object embedded in a

physical object, like a nail in a wooden block. According to Herskovits, this is not a case of containment but of embedding (Herskovits 1986:149–150). Sinha and Thorseng (1995) elaborates on the notions of containment and inclusion. The basic definition of canonical containment is that the landmark (the container) is conceptualised as a canonical container, while the trajector (the content) is contained by it. Additionally, there is an associated functional image schema tied to canonical containment which suggests that the landmark should be a three-dimensional solid, possessing a cavity. The cavity may, but not necessarily, be perceptually or physically accessible. If the cavity is accessible, it is at its upper surface or its upper end. The trajector, on the other hand, should either be a solid, a distributed collection of particles, or a fluid.<sup>44</sup> Furthermore, the container should constrain the movement, location and distribution of its content. This constraint should operate both on a vertical axis and on a horizontal plane. The definition covers both open containers, closed containers, and containers that can be closed. In order to instantiate the canonical containment relationship, the container must be canonically oriented, which means the cavity must face upwards (this does not apply to closed containers, i.e. containers with lids etc.). The concept of containment is separated from inclusion (both total, partial, surface and area inclusion), as well as from bounding (Sinha and Thorseng 1995:293). Ekberg (1991) studies the Swedish prepositions *i* ‘in’ and *på* ‘on’. The analysis invokes a distinction between two and three-dimensional objects in which an object can be idealised either as having two or three dimensions.

Vandeloise (1994) proposes a functional analysis of the French preposition *dans* ‘in’, where he considers the target (what is *in* something else) as a content and the landmark (which has something *in* it) as its container.<sup>45</sup> The use of the preposition *dans* ‘in’ is governed by the relationship between content and container. The study is at the same time an evaluation of two other analyses with different approaches, one geometrical (Hawkins 1988), and the other one topological (Herweg 1989). The geometrical analysis focuses on the three-dimensionality of the landmark (which has something *in* it), while the topological analysis stresses the landmark’s inclusion of the target. Vandeloise ignores the impact that the numbers of dimensions (zero, one, two or three) may have on the semantics of the preposition *in* as opposed to other analyses (Ekberg on Swedish *i* ‘in’ (1991) and Herskovits on *in* (1986), who regard this factor as significant). He notes the difficulties caused by entities like geographical regions: in one analysis (Hawkins 1988) they are regarded as two-dimensional while in another analysis within the same framework (Hottenroth 1991) they are regarded as three-

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<sup>44</sup> As I understand it, the term “distributed collection of particles” corresponds to Herskovits’s term “loose solid substance”, which is described in Chapter 8 in section 8.5.2 on *tjock* ‘thick’.

<sup>45</sup> The analysis offered by Vandeloise is a modified version of his former work (Vandeloise 1985, 1991).

dimensional. Vandeloise does not mince his words when he points out that “strictly speaking, only the fictions of our imagination are not tri-dimensional” (Vandeloise 1994:178). The notion of force plays a major part in Vandeloise’s analysis who contends that the content moves towards the container. Further, the container controls the position of the content, which means that the container controls the movement of the content and/or prevents access to the content (Vandeloise 1994:175).

Lakoff and Johnson (1980) suggests that human beings experience themselves as containers, with a circumscribing surface and an in-out orientation. This in-out orientation is projected on to other physical objects, which are constrained by surfaces and therefore these objects are also regarded as containers with an inside and an outside. Even when there are no physical boundaries, boundaries can be imposed, so that for example the territory of a country is considered to have an inside and an outside. Like Vandeloise, Lakoff and Johnson attach no importance to the fact that a two-dimensional object cannot (mathematically) contain a three-dimensional object. For them, as long as a container can be projected onto the pertinent object, it does not matter how many dimensions it may have. Furthermore, substances can be viewed as containers. Both the tub and the hot water in the tub are viewed as containers. The tub is a Container Object and the water is a Container Substance (Lakoff and Johnson 1980:29–31).

Sinha and Jensen de López (2000) points out that a container constrains the movement of its content and that to function reliably it must therefore be canonically oriented. As described more extensively in Chapter 3 (Theoretical assumptions), Sinha and Jensen de López have studied how infants related to the prepositions IN, ON, and UNDER in Danish and San Marcos Tlapazola Zapotec, and also how infants reacted to spatial relationships in the context of actions involving the manipulation of objects. As a result, the authors wish to extend the thesis of Embodiment. They argue that the thesis of Embodiment should include not only how the body functions, but also how artefacts are used in a cultural-specific manner.

Strzelecka (2003) points out that, theoretically speaking, a choice exists for a vertically oriented container between expressing the direction along the Vertical Axis using the Swedish particles *upp/ner* ‘up/down’ and expressing the direction in relation to the Container with *in/ut* ‘in/out’. However, the Vertical Axis always dominates so that the direction is always expressed linguistically by *upp/ner* ‘up/down’ for a vertically oriented container. Strzelecka assumes that this is language-specific for Swedish, at least in comparison to English, German, and Polish (Strzelecka 2003:216). Also see section 5.2.2 in Chapter 5 on *hög* ‘high/tall’.

### 10.3 Claims concerning *djup* ‘deep’

*Djup* ‘deep’ in its spatial, non-metaphorical sense can be described as a complex category, corresponding to a network model. One case is considered central. *Djup* ‘deep’:

- Refers to a vertical extension, where the adjective either has a marked sense, indicating a great extension in relation to a certain norm, or an unmarked sense, including no information regarding the relation between the dimension and a norm, but including instead information that the scale concerns the vertical extension and no other extension.
- The vertical extension is envisaged as measured from the top of the object to its bottom.
- Refers to interior measurements.

The adjective preferably combines with nouns referring to objects that:

- Are containers.
- Have an open top.
- Consist of water.
- Have bottoms that are less accessible than their tops.
- Have bottoms that are difficult to reach.
- Make it difficult to assess the extension from top to bottom.
- Have even tops.
- Are in the ground.

Some referent classes are so prototypical that they are considered as *djup* ‘deep’ themselves. *Ocean* ‘ocean’ is comprehended as synonymous to *djup ocean* ‘deep ocean’ so that the collocation is rather regarded as a tautology.

### 10.4 Results and discussion on *djup* ‘deep’

*Djup* ‘deep’ is strongly associated to the image schema Container, and therefore, this basic notion will provide the starting point for this presentation. First, however, a few words are needed on the distinction between dimensional and positional *djup* ‘deep’.

#### 10.4.1 Dimensional and positional *djup* ‘deep’

*Djup* ‘deep’ can either be dimensional or positional. The dimensional use is overwhelmingly more frequent. There are only 4 (out of 205) positional uses in the corpus. One such use is shown in (389).

- (389) Ytterligare avkylning av ytvattnet gör detta lättare än de *djupare lagren*...  
(B80–81) ‘Further cooling of the surface water makes it lighter than the lower layers...’

There were no nouns referring to objects located in the ground among the elicitation test data. When consulted, native speakers tend to disagree about suggested positional uses, such as *?djup skatt* ‘deep treasure’ (=a treasure which is located deep down in the sea) or *?djupa gångar* ‘deep tunnels’ (=a pathway/tunnel which is located deep down in the ground). The latter collocation, which exists in the corpus, is subject to different interpretations, such as “the pathway is semi-open” or “the tunnel starts at the ground level and goes diagonally down into the ground”, which, rather than clarifying this single example reveals the complexity of *djup* ‘deep’. This ambiguity corresponds to Rakhilina’s (2000) interpretations of *glubokie xody* ‘deep subways’, see section 10.2.1.

Dimensional and positional *djup* ‘deep’ are considered to belong to the same case in the complex category, which can be motivated by the well-formedness of (390).

- (390) *Lagren är djupare än brunnen.* (constructed) ‘The layers are deeper than the well.’

Dimensional *djup* ‘deep’ will be studied to a greater extent, but positional *djup* ‘deep’ will enter the discussion in relation to the concept of containment in section 10.4.6.

### 10.4.2 The container

The function of container is intimately associated with the objects described as *djup* ‘deep’. If an object, which does not function as a container, is described as *djup* ‘deep’, the collocation appears odd: *?en djup cykel* ‘a deep bicycle’. The bike is not a container, nor does it possess inner measurements. Even if an object has inner measurements, a collocation with *djup* ‘deep’ may seem odd: *?en djup jordglob* ‘a deep globe’. The terrestrial globe has inner measurements, but there is no aperture to its inner space and it is hardly used as a container.

As mentioned in section 10.2.2, the concept of container is widespread in the literature, while definitions of what really constitutes a container are lacking. In research on infants’ understanding of containers, containers (such as cups) are contrasted with passages (such as pipes) (see Caron et al. 1988 or Maclean and Sculer 1989). In Swedish, a container can be described as *djup* ‘deep’ while a passage is preferably described by some other adjective. A triumphal arch is a passage. Native speakers disagree on how the third dimension of such a triumphal arch (a dimension going through the arch) should be described. Both *tjock* ‘thick’ and *djup* ‘deep’ are suggested by the informants, although several hesitate and add “neither

is good” or “this is tricky”. Focusing on the pillars, *bred* ‘broad/wide’ is suggested. *Djup* ‘deep’ is considered “professional language” by some informants (used by architects for instance). Two informants discuss whether *lång* ‘long’ is good before concluding that if the third dimension is long enough, the triumphal arch will not be regarded as an arch anymore but as a tunnel. One informant rejects the idea of naming the dimension separately and opts for the adjective *stor* ‘big’ to apply to this dimension as well.

Sinha and Jensen de López (2000) treats canonical containers. The study is critical of the idea that embodiment alone governs our perception and cognition and the authors suggest that the Embodiment thesis should be extended to cover not only experiences grounded in the human body but also experiences with artefacts. It is possible to interpret the discussion to imply that Sinha and Jensen de López reject the human body as the canonical container *par preference* and suggest instead that containers outside the body could serve as canonical containers. This is in opposition to what is stated in Lakoff and Johnson (1980):

We are physical beings, bounded and set off from the rest of the world by the surface of our skins, and we experience the rest of the world as outside us. Each of us is a container, with a bounding surface and an in-out orientation. We project our own in-out orientation onto other physical objects that are bounded by surfaces. Thus we also view them as containers with an inside and an outside. (Lakoff and Johnson 1980:29)

The idea that can be derived from Sinha and Jensen de López (2000) suggesting that objects outside the body could serve as prototypical or canonical container is intriguing. The next step would be to formulate what such a canonical or prototypical container would look like. One attempt has already been made by Sinha and Thorseng (1995) on canonical containment, see section 10.2.2. In what follows I intend to develop the idea of a prototypical/canonical container.

Sinha and Thorseng (1995) suggests that a three-dimensional solid, possessing a cavity constitutes the landmark of canonical containment. I interpret this to mean that a hollow object could be a good candidate “prototypical container”. Further, Sinha and Thorseng write that the cavity may be, but not necessarily, perceptually or physically accessible. In to my opinion a prototypical container should be both perceptually and physically accessible. Moreover, the container should have one open side. The other sides should be solid. An open side facilitates inspection of the content, both what it consists of and how much there is. An open side facilitates the insertion and extraction of the content. The canonical orientation of the container should turn the open side up so that the open side becomes the “top”. By “top” I mean a side that is canonically regarded as the side facing upwards, even when the object is placed upside-down (see discussion on actual and canonical height in Chapter 5 on *hög* ‘high/tall’). This agrees

with Sinha and Thorseng, who say that if the cavity is accessible, access is from the upper surface or the upper end.

Such a canonical orientation (open side up) prevents the escape of liquid and powdery contents, and a solid bottom and solid sides make the container even more secure. The container should be designed for the purpose of containing content. It should be easy to move and practical in size to suit many everyday tasks in human. Bowls, cups, vases and jars are examples of what could be a prototypical or canonical container. As opposed to Sinha and Thorseng, I suggest that the prototypical container has no lid. As suggested by Sinha and Jensen de López (2000), the details of the prototypical/canonical container would differ from culture to culture.

According to Vandeloise (1994), in the case of *dans* ‘in’ the content should move towards the container and be subject to its restraint, see section 10.2.2. This analysis also seems valid for a prototypical container, since food and drink are taken to the bowls, cups etc. and not *vice versa*.<sup>46</sup> Such a canonical or prototypical container may very well be described as *djup* ‘deep’: *en djup skål* ‘a deep bowl’, *en djup tallrik* ‘a deep soup plate’, *en djup kastrull* ‘a deep saucepan’, and *en djup vas* ‘a deep vase’. The shape of such an object is often cylindrical (but it could be cuboid-shaped too, like *en djup lår* ‘a deep case’). As mentioned above, the top is open and the object has external and internal dimensions.

I will assume that a container of the kind described above constitutes the prototypical container. I will continue below by describing other containers that are not identical with the prototypical one, and relate these containers to the use of *djup* ‘deep’.

Containers may lack external dimensions, like *en djup brunn* ‘a deep well’, *ett djupt dike* ‘a deep ditch’, *en djup grav* ‘a deep grave’. I regard these containers as less prototypical. They are not movable which make them much less appropriate for everyday tasks. Still, these containers, which are often located in the ground, are man-made and designed for the purpose of containing.

In addition, there are containers which are not man-made but which have come to function as containers. Such containers are holes, caves, hollows etc. where a containing function has been ascribed and implemented.

An object that has no containing function may resemble a container in shape if it has an open side and internal dimensions. Examples of such objects are holes, depressions, crevices, and valleys. Even if the object does not function as a container, it may be regarded as a potential container. This

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<sup>46</sup> What is meant by “the content moves towards the container” could well be discussed. I have understood it as the content being put into the container (as when picking a berry and putting it in a basket) instead of the container being tread upon/put around the content (as when a soft hat is put on a head). Interpreted like this, bowls, cups etc. fulfill the requirement. However, it is possible to bring a cup to a coffee machine, which in a way is bringing the container to (or to the vicinity of) the content. The actual pouring of the coffee will anyway include the process of the content moving towards the container.

can be the case for inner spaces of all kind, either indoors or outdoors. These objects are often described as *djup* ‘deep’, as in *ett djupt hål* ‘a deep hole’, *en djup sänka* ‘a deep depression’, *en djup klyfta* ‘a deep crevice’, *djupa dalar* ‘deep valleys’, even though they do not function as containers.

According to Lakoff and Johnson (1980:30), there is a subgroup within the image schema Container, namely Container Substances, like water. A bowl may contain water, making the water the content. Furthermore, the water may contain something (such as salt) and therefore the water is a container and the salt is the content. Correspondingly, a depression in the ground may function as a container, containing water. The water itself could form a lake which in its turn could function as a container for fish, swimmers etc. The water is then regarded a container substance, using Lakoff and Johnson’s terms. These container substances are also very aptly described as *djup* ‘deep’: *djupt vatten* ‘deep water’, *djup snö* ‘deep snow’, *djup sand* ‘deep sand’, *djup mylla* ‘deep topsoil’, irrespective of whether they actually contain anything. These substances have a fixed orientation. They cannot be placed upside down and cannot be moved (see Lang 1993:273). Note that a container substance need not be inside another container. Snow is a container substance but is not contained in another container.

As stated above, a prototypical container would have an open top. There are also containers, which should then be considered less prototypical, that have an open side which does not face upwards. These containers can also be described as *djup* ‘deep’: *en djup eldstad* ‘a deep fireplace’, *ett djupt fack* ‘a deep compartment’, *ett djupt skåp* ‘a deep cupboard’, *en djup garderob* ‘a deep wardrobe’, *djupa jack* ‘deep gashes’, *djupa skråmor* ‘deep scratches’.<sup>47</sup>

### 10.4.3 Orientation

In section 10.2.1, I noted that Grzegorzycykowa (1997) suggests that Polish *głęboki* ‘deep’ either describes a dimension going from an opening/surface inwards to the bottom of the object (vertical dimension) or from an opening inward to a wall (horizontal dimension). This description is valid for Swedish *djup* ‘deep’, as well, since it measures the extension between the open side and the opposite side. When describing an object whose open side faces upwards (canonically), the adjective *djup* ‘deep’ describes a vertical extension. When describing an object with an open side that is not facing upwards, the adjective describes a non-vertical extension. The extension can either be horizontal (*ett djupt fack* ‘a deep compartment’, *en djup garderob* ‘a deep wardrobe’) or it can be unspecified as to orientation (*djupa jack*

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<sup>47</sup> See section 10.4.5 for a discussion on the containment relationship for objects like *jack* ‘gash’ and *skråma* ‘scratch’.

‘deep gashes’, *djupa skårer* ‘deep scratches’) When *djup* ‘deep’ describes a vertical extension, it describes an extension which is canonically vertical, for example the depth of a bowl. The relevant dimension of the bowl is still *djup* ‘deep’ even if it is turned sideways or upside-down (for example in the washing-up stand). When *djup* ‘deep’ describes a horizontal extension, it correspondingly describes an extension which is canonically horizontal, for example the depth of a cupboard. The relevant dimension is still *djup* ‘deep’, even if the cupboard is turned sideways. For an extension with unspecified orientation, like a scratch in a board, the scratch may actually be vertical or horizontal, but this will merely be a coincidence. There is a difference between *hög* ‘high’ and *djup* ‘deep’ in that *hög* ‘high’ can describe a dimension which is canonically vertical as well as a dimension which is actually vertical. This does not apply for *djup* ‘deep’ to the same extent. The reason is probably that *djup* ‘deep’ is a more complex adjective and the canonical sense already involves many circumstances that require consideration when interpreting and using it. There is so much to “keep track of” that it is difficult to transfer the use to an actual use.

In the elicitation test, nouns referring to objects whose vertical extension is described by *djup* ‘deep’, clearly predominated. Of 37 nouns, only 1 referred to an object where *djup* ‘deep’ is describing a horizontal extension (*hylla* ‘shelf’). There were 21 nouns referring to water, such as *hav* ‘sea’ (9 occasions), *sjö* ‘lake’ (6 occasions), *bassäng* ‘pool’ (3 occasions), *vatten* ‘water’ (2 occasions), *pool* ‘pool’ (1 occasion). An additional 9 nouns referred to holes, such as *håll/håla* ‘hole’ (3 occasions), *grop* ‘hole’ (1 occasion), *ravin* ‘ravine’ (2 occasions), *bergsskrev* ‘rock crevice’ and *klyfta* ‘cleft’ (1 occasion each), *dal* ‘valley’ (1 occasion), and 6 nouns referring to man-made cavities, such as *brunn* ‘well’ (3 occasions), *schakt* ‘shaft’, *dike* ‘ditch’ and *grav* (1 occasion each).<sup>48</sup> Note that in Weydt and Schlieben-Lange (1998), the nouns given by German informants correspond to the nouns given by the Swedish speakers participating in the elicitation test. In the study, *Loch* ‘hole’, *Meer* ‘sea’, *See* ‘sea, lake’, and *Brunnen* ‘well’ are the top four nouns to be associated with *tief* ‘deep’. Native speaker intuition suggests that *djup* ‘deep’ is primarily associated with a vertical extension (especially one extending down below the ground), such as *djup sjö* ‘deep lake’, *djup brunn* ‘deep well’, *djupt hål* ‘deep hole’. Underlying the use of *djup* ‘deep’ to describe a horizontal extension, there seems to be an intuitive concept of a human presence so that the dimension is aligned with a line of sight. Interestingly, there is no such idea (or if there is in a much weaker form) when *djup* ‘deep’ is used to describe a vertical extension.

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<sup>48</sup> The nouns *klyfta* ‘cleft’ and *bergsskrev* ‘rock crevice’ may refer to nouns, where *djup* ‘deep’ would describe a horizontal dimensions. If interpreted like this, there were 3 out of 37 nouns referring to horizontal extension. Still, the majority for *djup* ‘deep’ describing a vertical extension is heavy.

The non-oriented use of *djup* ‘deep’ involves descriptions of holes, scratches and cuts in other objects, such as *ett djupt hål i taket* ‘a deep hole in the ceiling’ or *djupa fickor i köttet* ‘deep gashes/pockets in the meat’ (in order to stuff the meat). The elicitation test contained no nouns referring to objects which would involve the use of *djup* ‘deep’ like this (possibly, *klyfta* ‘cleft’ and *bergsskrev* ‘rock crevice’ could be considered to belong here). The argument in Weydt and Schlieben-Lange (1998) is that these uses of *tief* ‘deep’ (as in *tiefe Wunden* ‘deep wounds’) show that the observer and his/her line of vision is not as important as Lang (1989) claims.<sup>49</sup> The wounds can appear on the speaker’s back, and holes, as in *tiefe Löcher* ‘deep holes’ exist independently of an observer.

Fillmore (1997:40) points out that the question “how *deep* is your desk drawer” is ambiguous. I would like to add that when both interpretations (vertical *djup* ‘deep’ and horizontal *djup* ‘deep’) are possible, vertical *djup* ‘deep’ is preferred. Example (391) illustrates such a situation.

(391) Därmed fanns det bara två ställen kvar, de *djupa* lådorna i nattduksborden på var sida om sängen. (B76–77) ‘With that only two places remained, the deep drawers in the bedside tables on either side of the bed.’

The example of (391) is interpreted as describing the drawers of the small bed room side tables as horizontally *djup* ‘deep’. As soon as the drawers are pulled out, however, it would be more accurate to describe the horizontal dimension as *lång* ‘long’ (provided it is larger than the width) and the vertical dimension as *djup* ‘deep’. Thus, when the drawers are closed, the fronts of the drawers are visible, and horizontal *djup* ‘deep’ is preferred, whereas when the drawers are pulled out, the drawers form an open container with an open top making vertical *djup* ‘deep’ preferable.

According to the description above, there are objects for which the following is true: the object is described as *djup* ‘deep’, the object is a container, the object has an open side, the open side is not facing up, the dimension called *djup* ‘deep’ is horizontal. Examples of objects of this kind are *ett djupt skåp* ‘a deep cupboard’ and *en djup ugn* ‘a deep oven’. It appears that these objects often have a general orientation which determines one side as the “front”.

The front indicates or can indicate the side enabling access. This is the case for objects such as dishwashers, stoves, couches, and cupboards. The horizontal extension of these objects can often be described as *djup* ‘deep’. One way of testing whether an object (in what follows referred to as a *landmark*) has a frontal direction is to try to combine the noun that represents it with *framför* ‘in front of’ and *bakom* ‘behind’. As has been pointed out by Clark (1973:45–46) as well as by Vandeloise (1991:122–

<sup>49</sup> In Weydt and Schlieben-Lange (1998) no distinction is made between oriented uses and non-oriented uses, but the example (deep wounds) corresponds, according to my interpretation, to a non-oriented use.

123), IN FRONT OF and IN BACK OF in (American) English and French are ambiguous. Clark points out that in English there are two fronts and backs. The first one is an inherent front, as of a car or a person. The second one is the front and back determined by “the canonical encounter”, which means that the side facing an observer will be perceived as the front, and the side facing away as the back. Thus, a phrase like *bollen är framför huset* ‘the ball is in front of the house’ can either mean (1) that the ball is at the side where the main entrance is, or (2) that the ball is at any side of the house, between the house and somebody facing the house and the ball. In the first case (1), the front of the house is the inherent front, in the second (case 2), it is defined by the direction of the viewer’s gaze. The house and the person both participate in a “canonical encounter”, using Clark’s terms (Clark 1973:34). To return to the test of whether a landmark has an inherent front, the procedure is as follows: If a phrase containing *framför/bakom* ‘in front of/in back of’ can be interpreted to mean that an object is only located at one privileged side of a landmark (analogous with case (1) for the ball and the house), and also at the same time that the object is aligned between the landmark and someone facing it (analogous with the second case for the ball and the house), then the landmark has an inherent front and back. If only interpretation (2) is available, the landmark is considered to have no inherent front.

The open side will often coincide with the front of objects whose horizontal dimension can be described as *djup* ‘deep’. A dishwasher, a stove and a cupboard have previously been referred to. The open side and the front coincide for these objects. The front of a couch is also “open”, or at least relatively.

But the open side and the front can also be separated. The front of a bar faces the customers even though this side is closed, while the back (facing the bartender) could well be considered more open because it has storage space for glasses, bottles etc. The bar can be described as *djup* ‘deep’ and this dimension would probably be understood as starting at the side facing the bartender (thus, the back) and proceeding towards the side facing the customers (thus, the front). Moreover, a vase can have a front in that sense it is decorated on one side. The open side of the vase faces up, while the front is a distinct side. The vertical dimension of the vase can be described as *djup* ‘deep’, but not the front-to-back dimension.

The example of the bar shows that the side that is open takes precedence over the front if they are opposite each other, in other words, the depth will be measured from the open side and not from the front. The example of the vase shows that the vertical dimension of an object with an opening at the top will still be described as *djup* ‘deep’ even if decoration or shape obviously determines which side should be the front. For the vase, too, the aperture takes precedence over the front.

There are, however, cases when precedence is not given to the open side. One example is a top-fed washing machine. Its front faces the room and

anybody who approaches with laundry. It opens at the top. In describing the measurements of the machine, *hög* ‘high’ will probably be used to describe the vertical dimension, *djup* ‘deep’ for the front-to-back dimension and *bred* ‘broad/wide’ from side to side. The washing machine is especially interesting since the extension described as *djup* ‘deep’ is not internal but external. Stoves and dishwashers are other objects that are described in the same way. Stoves and dishwashers have, like the washing machine, inner measurements, but dimensional adjectives used to describe them tend rather to refer their external measurements, as the description often is intended to provide information about whether the machine will fit into a designated space. In furniture brochures (like the IKEA-catalogue), the standard method of describing furniture is to use the adjectives *hög* ‘high’, *bred* ‘broad/wide’ and *djup* ‘deep’ for the outer measurements. Such uses are referred to in Weydt and Schlieben-Lange (1998) as “technical”, which I agree is a good label. It could be argued that it is the space the item is intended to fit rather than its external dimensions that is measured. The phenomenon of an adjective syntactically describing a lexical unit, but semantically describing something else, has been analysed by Malmgren (1990). According to the study, such a collocation as *ett vänligt brev* ‘a friendly letter’ is one example in which syntactically the adjective *vänlig* ‘friendly’ qualifies the noun *brev* ‘letter’, but semantically would primarily describe a person (the sender of the letter). In the case of *ett vänligt brev* ‘a friendly letter’, the author points out that if an adjective primarily describes a human inner state or a human inner quality, the adjective may also determine a noun which represents human activity or (in some cases) the result of human activity. Other examples are *en arg blick* ‘an angry glance’ and *en genial roman* ‘a brilliant/ingenious novel’, where *arg* ‘angry’ and *genial* ‘brilliant/ingenious’ normally describe human beings but also can describe activity (*blick* ‘glance’) or the result of human activity (*roman* ‘novel’) (Malmgren 1990:151–152). This use of the adjective could be labelled as “extended” using cognitive linguistic vocabulary, possibly a case of metonymy. Thus, the manner of describing a washing machine (or a stove or a dishwasher) as *djup* ‘deep’ would be analogous in the sense that the adjective syntactically describes the machine, but semantically the space surrounding the machine. Describing roots as *djup* ‘deep’ could be connected to this model and this will be discussed below.

Returning to the top-fed washing machine, it is note-worthy that front-fed machines are more common in Swedish, and for such machines, the front and the opening coincide. The habit of describing top-fed machines as *djup* ‘deep’ regarding the front-back-dimension could have developed in analogy with the way a front-loaded machine is described.

To sum up therefore, when *djup* ‘deep’ describes a vertical extension, the object’s open side will coincide with its top. When *djup* ‘deep’ describes a horizontal extension, the object’s open side will often coincide with its front

but not always, as shown (the top-fed washing machine and the bar are examples where the open side and the front do not coincide).

Vertical *djup* ‘deep’ describes the extension between the top and the bottom, while horizontal *djup* ‘deep’ describes the extension from the front to the inside of the back. In the case of non-oriented *djup* ‘deep’, which describes objects such as marks, gashes, scratches etc., the object probably has no front. When trying to say *framför* ‘in front of’ or *bakom* ‘behind’ object of this kind, the only possible interpretation involves a person aligned with the object and the landmark (see “case 2” as described above). Unlike many other cases of *framför* ‘in front of’ and *bakom* ‘behind’ these utterance do not display the ambiguity noted by Clark (1973:45–46). Thus the interpretation of *Lägg bollen framför jacket* ‘put the ball in front of the gash’ always involves a person aligned with the object (*bollen* ‘the ball’) and the landmark (*jacket* ‘the gash’).

The open side of vertically oriented objects (normally the top) and the open side of horizontally oriented objects (normally the front) show similarities, and so do sides opposite the open side of a vertically oriented object (normally the bottom) and opposite the open side of a horizontally oriented object (normally the inside of the back). The fact that one side is open makes this side accessible to a user and therefore the one approached. For this reason this side is closer to the user than the opposite side (the bottom or the inside of the back). For water as well as for powder substances although the top can be penetrated it is not open in the same sense as a hole in the ground is open. Furthermore, the sand at the bottom of a lake is less penetrable than the water above the bottom, as the ground under the snow is less penetrable than the snow itself. I would like to point out the correspondence between vertical *djup* ‘deep’ and horizontal *djup* ‘deep’, in that the bottom and inside of the back are both less accessible than the top/the front, and also where the increasing distance from the user is concerned. This correspondence is not mentioned in the dictionaries. Note that the inside of the back is not lexicalised in Swedish (nor in English) while the bottom is. This strengthens the assumption that a horizontal container is less prototypical than a vertical one. *Djup* ‘deep’ describing an extension of a vertically oriented container is considered the central case, whereas *djup* ‘deep’ describing an extension of a horizontally oriented container is considered a non-central case in the network model, corresponding to the complex category of *djup* ‘deep’. The two cases of *djup* ‘deep’ are very similar, and the main difference between them is abstraction away from the factor of orientation pertaining to the vertical dimension. This is a common form of development in polysemy and can be seen in *over*, where the covering sense abstracts away from the usual specification of the trajector being higher than the landmark (Dewell 1994).

The fact that *djup* ‘deep’ describes an extension starting at a more open location, going towards a more closed one, is also valid for the few cases of non-oriented *djup* ‘deep’. However, the more open location need not be

closer to the user. In (392), a piece of a bear's skeleton has deep grooves from teeth.

- (392) Bredvid den stora gropen i snön låg en bit av björnbroderns bäckenben med *djupa skårar* efter tänder. (B76–77) ‘Next to the large hole in the snow lay a piece of the bear brother's pelvis with deep teeth marks.’

The grooves may very well be all over the surface of the piece, both on a surface closer to an observer, and on a surface facing away. A groove on a surface facing away from an observer will have its opening further away from the observer, who will be closer to the bottom of the groove. While studying only one groove at a time, the opening will be closer to the user than the bottom. On the other hand, it is debatable who the user is. I have primarily regarded humans as users and in a situation like in (392), observation would be the functional situation. However, the animal that made the grooves in the pelvis could be defined as a user. Grooves, marks and other traces form a group of their own in relation to the concept of containment. This is further elaborated in section 10.4.5.

The horizontal dimension of vehicles such as cars, carriages, prams, boats etc. are scarcely described as *djup* ‘deep’. Neither is the front-to-back dimension nor is the sideways dimension of a car described as *djup* ‘deep’. The car has openings at both sides (the doors), and this may well turn the car into a passage rather than a “true” container. Each side provides as good an entrance as the other, which privileges neither as the preferred entrance. Another possible explanation for the infrequency of the use of *djup* ‘deep’ to describe vehicles may be that moving objects are associated with content (rather than with container) according to Vandeloise's (1994) analysis, where the content moves but the container is motionless.

In the corpus, *djup* ‘deep’ most frequently describes a vertical dimension:

- (393) [...] och genom den slingrade sig *floden*, *djup* och trög mellan lerbanks fulla av svalbon. (B76–77) ‘[...] and through it the river meandered, deep and sluggish between mud banks full of swallow's nests.’

- (394) *Snön* ligger nu så *djup* att skogsjakten måste upphöra. (B80–81) ‘The snow is now so deep that hunting in the forest has to cease.’

The examples of uses of *djup* ‘deep’ to describe a vertical orientation total 146 instances out of 205. As has already been mentioned, all the nouns except one (36 out of 37) in the elicitation text referred to objects for which *djup* ‘deep’ would describe a vertical extension.

There are also cases where *djup* ‘deep’ describes a horizontal orientation:

- (395) Han tittade in i det *djupa facket* och såg en välbekant ask av röd sammet. (B76–77) ‘He looked into the deep compartment and saw a familiar red velvet box.’

- (396) [...] dels en stor och *djup lagerhylla*, som skjuter ut på längden i rummet för att åstadkomma en liten sovalkov med en undanskymd Dux-säng. (B80–81)

[...] partly a large, deep storage shelf, which protrudes lengthways into the room in order to create a small recess with a concealed Dux bed.’

In 44 of 205 instances *djup* ‘deep’ describes a horizontal dimension. This group includes the examples concerning forests, where the presumed horizontal orientation can be discussed, see 10.4.6.2. As noted, one noun in the elicitation test referred to an object for which *djup* ‘deep’ would describe a horizontal extension.

Finally, the third and last case involves lack of orientation for *djup* ‘deep’:

(397) Träet var spräckt och hade märken efter björnens tänder, *djupa skårer* och hack. (B76–77) ‘The wood was split and had marks from the bear’s teeth, deep scratches and cuts.’

*Djup* ‘deep’ describes a dimension, which is unspecified as to orientation in 15 of the 205 instances. Thus, these instances form a minor group. The elicitation test can be presumed to have contained no nouns of this kind. Since the nouns are decontextualised in the test, little information is provided regarding orientation.

My claim is that *djup* ‘deep’ implies a direction that runs from the open side to the side opposite. As mentioned in section 10.2.1, this assumption has been expressed earlier regarding DEEP by Lyons (1977), Lang (1989), Grzegorzczkova (1997), Weydt and Schlieben-Lange (1998) as well as by Linde-Usiekiewicz (in manuscript). Lyons (1977) writes that depth is measured downwards from the point of reference for oriented objects (1977:703). Lang (1989) states that *tief* ‘deep’ involves a direction along the observer’s line of sight. From the figures in Lang’s text, it becomes clear that the direction starts at a point of the object that is closer to the observer and ends at a point that is further away (1989:87). According to Grzegorzczkova (1997) the first concept of *głęboki* ‘deep’ involves a dimension that runs from an opening or a surface inwards to the bottom of an object. The second concept of *głęboki* ‘deep’ involves a dimension extending from an opening inwards to a wall. In Weydt and Schlieben-Lange (1998) it is claimed that *tief* ‘deep’ has the direction of “into the interior” (1998:202). Linde-Usiekiewicz (in manuscript) considers *głęboki* ‘deep’ as following the direction of the observer’s axis, no matter what direction it has. She points out that the extension could have an upward direction as when describing caissons in the ceiling (in manuscript:section 4). However, none of the studies elaborates further on direction.

As mentioned in section 10.2.2, when describing the relationship between container and content in discussing *dans* ‘in’, Vandeloise (1994) claims that the content moves towards the container. The author does not discuss how the content is moved, but for many objects the involvement of a human being can be presumed, who would therefore have to move the content from its starting point towards the container, through the opening of the container to its position inside the container. This need not necessarily follow the line

of vision, but this cannot, the other hand, be ruled out. Therefore a human being may indirectly be involved in Vandeloise's analysis and the act of manoeuvring could possibly be related to the line of vision. In Weydt and Schlieben-Lange (1998) the idea of attaching great importance to the observer's line of vision in the description of *tief* 'deep' is rejected.

*Djup* 'deep' primarily describes an internal measurement of a container. According to Vandeloise, a containment relation is characterised (among other things) by the fact that the content moves towards the container. There is a movement of the content into the container (Vandeloise 1994:175), i.e. from the open side to the opposite side. If/when the content is extracted, there is movement in the opposite direction, from the side opposite to the open side. Since Vandeloise studies *dans* 'in', the focus is on the motion preceding the containment relationship while motion succeeding the containment relation is not as interesting for the study. It is debatable whether insertion and the act of extraction can be ascribed equal status in the concept of containment. Intuitively, the two processes (putting in and extracting) are chronological. First, you put something into a container, and then you remove it. This is probably a naïve construction. There are trees in the forest that have never been "put" there and there is milk in the mother's breast that was created inside the body. However, for the prototypical container, as described above, the processes are often chronological. First, you pour soup in the bowl, and then you take it out by eating it spoonful by spoonful.

The direction of *djup* 'deep' could then be argued to be the (first) direction of the content, when moving towards the container. This definition focuses on the containment relationship rather than the relationship of object and observer, as is focused by Lang (1989) and Linde-Usiekniewicz (in manuscript). It is possible that a mental operation of inserting an imagined content takes place when the depth of an object is assessed. For larger objects this imagined content could be oneself. Intuitively, it would seem that we frequently assess whether our body would fit into certain spaces. When describing the depth of water when swimming, the expression in Swedish is *jag bottnar/jag bottnar inte* 'I can touch the bottom/I cannot touch the bottom' (implying that one can reach the bottom and still have your mouth/nose above water). The expression *här är/blir det djupt* 'it is (getting) deep here' can be used synonymously with *jag bottnar inte* 'I cannot touch the bottom'. This indicates that for water *djup* 'deep' in a certain context (e.g. that of swimming) describes where the depth of the water is greater than the height of the human body. However, this would take us into the issue of the norm for considering water to be *djupt* 'deep' and is therefore beyond the scope of my study. However, it can be stated that the human body and the water interact as content/container in a conventionalised way, which could be well worth taking into account in any description of the semantics of *djup* 'deep'.

The direction in which the content moves towards the container is probably parallel with the observer's line of sight. Vision is normally involved in the process of inserting content into a container, i.e. we look at what we are doing. If, as was suggested above, a mental operation of inserting an imagined content takes place, vision is probably also included. Thus, the line of sight is present in the analysis, but merely as a consequence of some other process.

*Djup* 'deep' can also be used adverbially:

(398) Hon stack handen *djupt* in i lådan. (constructed) 'She put her hand deep into the drawer.'

*Djupt in* 'deep into' as in (398) expresses a movement of a content (*handen* 'the hand'). At first, the content is outside the container (*lådan* 'the drawer'). Then, the content is moved to the inner of the container. Theoretically, the adverb *djupt* 'deeply' could also be used together with *ut* 'out', which is the opposite of *in* 'into'. Such a collocation is tried in (399).

(399) \*Hon drog handen *djupt* ut. 'She pulled her hand out deeply.'

The utterance is difficult to interpret. *Ut* 'out' describes a movement from the inner of a container to the outside. The fact that it hardly can be combined with *djup* 'deep' strengthens the presumption that *djup* 'deep' has a direction in the first place, and that the direction is from the outside of the container to the inside of the container in the second place.

Strzelecka (2003) argues that the vertical axis dominates the horizontal axis in Swedish, which leads to the fact that if a direction toward the inside is at the same time a direction downwards, it will be expressed by *ner* 'down' rather than by *in* 'into' (also see section 5.2.2 in Chapter 5 on *hög* 'high/tall'). The adverb *djupt* 'deeply' can be combined with *ner* 'down', which, taking the Strzelecka analysis into consideration, can be interpreted as the vertical version of *djupt in* 'deeply into'. If the open side of a certain container is facing up and a content is placed in it, its direction will be downwards.

Are there cases of *djupt* 'deeply' where the movement of the content into the container does not have the direction mentioned above (into the container or downwards and into the container)? As has been discussed above, a hole in the ceiling can be described as *djupt* 'deep', see SAOB on *djup* 'deep' and Weydt and Schlieben-Lange (1998). If a situation is envisaged in which a small object, like a used piece of chewing gum, is to be placed in such a hole, would it be possible to use *djupt upp* 'deeply up'?

(400) ?Tryck upp tuggummit *djupt* i hålet. 'Press up the chewing gum deeply in the hole.'

(401) ?Tryck tuggummit *djupt* upp i hålet. 'Press the chewing gum deeply up in the hole.'

Both (400) and (401) are utterances that sound somewhat odd. There exists a more or less vulgar expression *stoppa upp något (någonstans/i röven)* ‘stuff something (up your arse)’ to imply that something, e.g. a suggestion, deserves no better place than the posterior of the person suggesting it. The expression cannot be combined with *djupt* ‘deeply’, see (402), but it can be combined with *långt* ‘far’, see (403).

(402) ?Du kan ta ditt förslag och stoppa det *djupt upp* (någonstans/i röven). ‘You can take your suggestion and stuff it deep up your arse.’

(403) Du kan ta ditt förslag och stoppa det *långt upp* (någonstans/i röven).  
(constructed) ‘You can take your suggestion and stuff it right up your arse.’

*Lång* ‘long’ has no direction (see Chapter 11), and this holds also for its adverbial use *långt* ‘far’. *Långt* ‘far’ (comparative *längre* ‘further’) can also be used when referring to spots on the human body, such as *kli mig längre upp på ryggen* ‘scratch my back further up’. When expressing a wish to put a used chewing gum in the interior of a whole (see (400)–(401)), either *långt upp* ‘far up’ (which would probably be the preferred choice) or *djupt in* ‘deep into’ could be used. This shows that *djupt in* ‘deep into’ can actually describe a vertical direction, as opposed to Strzelecka (2003:151). According to Strzelecka, the vertical direction dominates in Swedish so that *in* ‘into’ is only used about non-vertical directions. However, for a few limited examples, Strzelecka admits that *upp/ner* ‘up/down’ are exchangeable for *in/ut* ‘in/out’. These examples are *stoppa ner/in kikaren i dess fodral* ‘put the binoculars in their case’ and *trycka ner/in låsknappen* ‘press the key button in’. When trying to combine these examples with *djupt* ‘deep’, both actions are interpreted as being executed along the horizontal axis: *stoppa kikaren djupt in i dess fodral* ‘put the binoculars deep in their case’ and *trycka låsknappen djupt in* ‘press the key button deep in’. This shows that in order for *djupt in* ‘deep in’ to describe a vertical direction, very specific circumstances must apply. In the example with the gum in the hole in the roof, for instance, the adjective *djup* ‘deep’ first describes an upward direction, as opposed to a downward, which is the common direction for *djup* ‘deep’. Secondly, the gum sticks to the roof instead of falling down, which is an uncommon phenomenon (it “violates” gravity).

In the situation depicted in (402)–(403), the direction is vertically upwards. When the direction is vertically downwards, *in* ‘into’ can probably not be used, in accordance with Strzelecka’s results. *Djupt in* ‘deep in’ would, however, not be used as an alternative to *långt upp* ‘far up’ in (403). One reason may be that (402) is more of a lexicalised phrase.

#### 10.4.4 The inaccessibility of the container

Given that there is such a thing as a prototypical container and given that *djup* ‘deep’ preferably describes a container, it could be assumed that *djup*

‘deep’ would most frequently describe a prototypical container. Scrutiny of the corpus, however, makes it clear that *djup* ‘deep’ fairly seldom describes what has been called here the prototypical/canonical container. More frequently it describes another kind of container. In (404), one of the few cases of *djup* ‘deep’ describing a prototypical container can be seen, and in (405)–(406) the adjective describes another type of container.

(404) Strax hade vi en stor, *djup* och ångande *lerskål* på bordet, och herr soldaten fick tårar i ögonen då han såg maten, det var nog inte i går han sist fick ett riktigt skrovmål. (B76–77) ‘Soon we had a large, deep, steaming earthenware bowl on the table, and it brought tears to mister soldier’s eyes when he saw the food – it was probably quite a while since he last had a good square meal.’

(405) Vagnen krängde över, när den sjönk ner i ett *djupt hål*, och med den låga farten och ett öppet fönster var det omöjligt att hålla kylan ute. (B80–81) ‘The carriage heaved as it sank into a deep hole, and at that slow speed and with an open window it was impossible to keep the cold out.’

(406) Bakom udden därborta var *sjön* ganska *djup*. (B80–81) ‘Behind the promontory over there the lake was fairly deep.’

The bowl of (404) fulfils all the requirements of a prototypical container proposed above. It has an open top, it has a bottom, it has solid sides, it is movable, conveniently sized and vertically oriented. Besides, the object has been designed as a container. The hole of (405) has its open side at the top, like the bowl, and its sides are solid, but it is not movable nor conveniently sized. The hole has not been designed for containing, and further, the containing function is more temporary than that of the bowl. Likewise, the lake of (406) is not movable and it has not been designed for containing. The open (or the most open) side of the lake is located at the top. Both the hole and the lake lack external measurements. They are part of the ground, whereas the bowl has outer measurements. Thus the hole and the lake differ quite markedly from the bowl. In the corpus, *djup* ‘deep’ more frequently describes objects like the hole and the lake than objects like the bowl. The elicitation test contained only one noun referring to objects with external measurements (*hylla* ‘shelf’).

In the case of the lake, the bottom is quite inaccessible. The relative inaccessibility of the bottom makes the inner space a satisfactory hiding-place. There are several examples of hiding-places in the corpus.

(407) Hon kunde gräva ett ganska *djupt hål*, och det måste vara tillräckligt djupt så att ingen, om de inte satte igång med en ny gruvdrift, skulle hitta den. (B76–77) ‘She could dig quite a deep hole, and it must be so deep enough that nobody, unless they started new mining operations, would find it.’

In (407), the intention is to hide a precious watch and the idea is to conceal it in the ground.

In the following examples, the container conceals a human being, either temporarily, see (408), or more permanently, see (409).

- (408) Till slut hade han kommit på henne där hon låg på rygg, sade han, nästan täckt av det *djupa gräset* vid Kaknästornet. (B76–77) ‘In the end he found her, lying on her back, he said, almost covered by the long grass at Kaknäs Tower.’
- (409) Människan hade ställt det så illa för sig att hon måste gräva bunkrar och *djupa hål* i bergen för att få en liten chans att överleva sin egen ondska. (B80–81) ‘Mankind had made such a mess of things that they had to construct concrete bunkers and deep holes in mountains in order to have a small chance of surviving their own evil.’

In (408), the hideaway has been chosen with a playful mind, whereas in (409), the hideaway is a necessity in order to escape the horrors of war. The hideout can thus provide safety and protection. In (410), a ferry is safe in a deep inlet:

- (410) En stor färja, liknande den första de hade åkt med, låg på insidan av färjväggen, väl skyddat inne i sin *djupa vik* med branta klippor, som stupade ner mot det blanka vattnet, som var djupgrönt, utom i mitten, där det färgades silvrigt av en vindkåre. (B80–81) ‘A large ferry, similar to the first one they had travelled in, lay on the nearside of the ferry berth, well protected in the deep inlet with its sheer cliffs sloping down towards the mirror-like water, deep green except for the middle where it was coloured silver by a breeze.’

The ferry of (410) is protected from wind and stormy waters.

In other cases, the object described as *djup* ‘deep’ is not associated with security, but instead with danger or fear, see (411) and (412). The object can also be related to something unknown, see (413).

- (411) Utmed klyftan fanns en stenhägnad. – Det var då en förfärligt *djup klyfta!* sade Trofims dotter och vände sig bort. – Tur i alla fall att de byggt en stenmur här, anmärkte Trofims hustru, för annars så... Gud bevara en, om man måste gå förbi här en natt! (B76–77) ‘Along the gorge there was a stone enclosure – Such a horribly deep gorge, said Trofim’s daughter and turned away. – At least it’s lucky they’ve built a stone wall here, Trofim’s wife remarked, because otherwise... God help you, if you had to walk along here at night!’
- (412) Martin hade gått här tidigare, men då alltid med pappa vid sidan, ja hållande hans fasta hand; för här lurade många faror i de *djupa schakten* och väldiga gråbergstipparna och stora grustaget. (B76–77) ‘Martin had walked here before, but then always beside his dad, yes, holding his firm hand, because here many dangers lurked in the deep shafts and the huge tips of waste rock and the large gravel pit.’
- (413) Tappra män har sprängt schakten, *djupa gruvor*, hundratals meter ned i det okända. (B76–77) ‘Brave men had blasted the shafts, deep mines, hundreds of metres down in the unknown.’

In (411), a gorge is described. A stone wall has been built close-by and this is referred to as “lucky” implying that it would otherwise be easy to fall down into the gorge, especially after dark. In (412), a child is at a mine. The child has been warned that the area is dangerous. In (413), the men are described as brave, having blasted the mines in unknown space.

For some objects, darkness is associated with the depth. The darkness can complicate a mission, as in (414) and/or it can be frightening, as in (415).

(414) Finn dyker ner, men *hållet* är för *djupt* och ju längre ner han kommer desto mörkare och mer svårforcerat blir vattnet. (B76–77) ‘Finn dives down, but the hole is too deep and the further down he goes, the darker and more impenetrable the water becomes.’

(415) Hjälp! Viskade han djupt nere i det *djupa*, svarta *hållet*. (B76–77) ‘Help! He whispered deep down in the deep, black hole.’

In (414), the mission is to find a ring that has been accidentally dropped in a water hole. In (415), a child is experiencing (or imagining) being locked inside a hole, under a closed flap. The darkness can be regarded as another trait of inaccessibility.

Thus *djup* ‘deep’, when describing a container, can either be related to safety and protection, both for people and things that need to be hidden, or it can be associated with danger, fear, and darkness, which can be obstructive or frightening.

Closer examination reveals that the two subgroups, containers associated with safety/protection and containers associated with fear/danger, are the same type of containers. Only the perspective shifts. A container that is dangerous for one person may be safe for somebody else. Consider the example (416).

(416) Varför väljer du inte ut den *djupaste punkt* du kan hitta mellan här och Fhada och slänger henne över relingen med ungefär fyrtio kilo gammal kätting runt benen? (B76–77) ‘Why don’t you choose the deepest point you can find between here and Fhada and throw her over the railing with about forty kilos of old chain tied around her legs?’

In (416), a man proposes to another man the idea of a woman being thrown overboard. For the men, the deep point in the sea is a safe spot, from the point of view of their purpose, since the woman will not be able to reach the surface again. For the woman, naturally, the deep point is a dangerous place. If the container is deep enough, it is both difficult to get up from (thus dangerous for a captive) and difficult to get into (thus safe as a hiding-place). The danger can also relate to the risk of falling and causing injuries.

Some qualities follow from the fact that a container is located in the ground (here, water such as lake and sea is counted, too). If the container is deep enough, it will be dark unless additional light is produced. The depth of the container will be difficult to assess, especially from afar, but such an assessment may also be difficult to perform close to. Compared to other

dimensional adjectives, *djup* ‘deep’ describes (to a greater extent) a dimension that vanishes from sight in the sense that the end of the vertical dimension may not be visible.<sup>50</sup> This can be seen in (417).

- (417) Någonting dog med ett rop långt borta och vi gav oss ut över gräset mot *avgrundens* rand. Gudarna vete hur *djup* den var. Sexhundra meter, niohundra? Det var omöjligt att bedöma djupet, för vi hade inga måttstockar för vare sig djup eller avstånd, där vi stod på en klippställning och blickade ner mot de gräs- och buskbevuxna terrasserna som sänkte sig allt djupare ner mot skuggorna. *Avgrundens* botten var helt osynlig. (B76–77) ‘Something died with a cry far away and we set out over the grass towards the edge of the abyss. Heaven only knows how deep it was. Six hundred metres, nine hundred? It was impossible to judge because we had no measure of either depth or distance from where we were standing on a rock slab, looking down at the grass- and bush-covered terraces which plunged down deeper and deeper towards the shadows. The bottom of the drop was completely invisible.’

There are cases of *djup* ‘deep’ where the function of container is not explicit or even clear. From the corpus, we find examples like:

- (418) Denna baksida är alldeles jämn, stupar rakt ner i en *djup avgrund*. (B80–81) ‘This rear side is completely sheer, dropping straight down into a deep abyss.’
- (419) Joe skulle inte ha lagt sig så långt bort, om *hållet* hade varit så *djupt* att sälen inte kunde ta sig uppför de egendomligt varvade sidorna av vaken. (B76–77) ‘Joe would not have bedded down so far away if the hole had been deep enough to prevent the seal from getting up the peculiarly layered sides of the hole in the ice.’

The first example (418) illustrates one frequent use of *djup* ‘deep’, namely in describing nature. Here, again, *djupt vatten* ‘deep water’ is common. Further, combinations such as *djupa dalar* ‘deep valleys’ and *djupa skogar* ‘deep forests’ can be found. The latter use is a very interesting type, which will be discussed in 10.4.6.2. The nature-related objects are not containers of the kind that we normally think of, but they have inner measurements and they have a “container capacity”, which means they are potential containers. They also share shape features with real containers (see section 10.4.2). Many of the nature-related objects are big enough to contain a human being (water, abyss, valley, and cave among others) and render a human being less visible in relation to the surroundings. In the elicitation test, the nouns *pool* ‘pool’, *bassäng* ‘pool’, *brunn* ‘well’ and *dike* ‘ditch’ can be regarded as referring to objects that actually function as containers, whereas all the other cases are rather objects sharing shape-features with actual containers. All these uses are part of the central case in the complex

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<sup>50</sup> *Bred* ‘broad/wide’ is more related to sight than is *djup* ‘deep’, see Chapter 6 on *bred* ‘broad/wide’.

category. On another level, these uses form a simple category, whose members locate themselves closer to or further from the prototype.

In order to suggest a prototype, not only elicitation data and corpus data have been considered, but also dictionaries and native speaker intuition. In three of five dictionaries (Bonniers svenska ordbok, Nusvensk ordbok and Illustrerad svensk ordbok), a collocation concerning water is given as the first example, whereas it is uncertain in one dictionary what sense was exemplified (*bråddjup* ‘precipitous’ may refer to both water and cavities). One dictionary (SAOB) gives *djup snö* ‘deep snow’ as the first example. Further, input from other native speakers than myself has suggested that collocations such as *djup vatten* ‘deep water’ and *djupt hav* ‘deep sea’ are more prototypical than *djupt hål*, and at last, my own linguistic intuition supports such a suggestion.

Thus, the prototype is a use where *djup* ‘deep’ describes an actual container substance. Uses sharing the function of container, and uses sharing similarities in shape to container substances or to containers, are more peripheral compared to a prototypical use such as *djupt vatten* ‘deep water’.

In the example of (419), a hole in the ice is under observation so that seals coming up from the water to the ice can be studied. This hole is described as *djup* ‘deep’. It has no bottom and therefore could be characterised as a passage rather than as a container. According to Lyons (1977), the vertical dimension of an oriented object is called *deep*, the extension being measured downwards from a point of reference. Further, depth only applies to spaces or hollow entities. Lyons goes into no more detail about the meaning of “hollow” than that it should be understood as opposed to “solid”. A hollow entity may have a bottom, like a container, but it may also have no bottom, like a passage. The use of Swedish *djup* ‘deep’ seems to prefer hollow entities with bottoms/backs (i.e. containers) to hollow entities without them (i.e. passages). However, holes in the ice, which constitute passages, are easily described as *djup* ‘deep’. The reason why these holes are described as *djup* ‘deep’, is probably because the interior of the hole in the ice consists of air and at its end there is water, which is denser and less open than the air. Thus there is a difference between the air and the water which justifies perceiving the water as some kind of bottom, an essential requirement if an object is to be described as *djup* ‘deep’. (See the discussion about bottom and inside of the back in section 10.4.3.) Furthermore, the perspective from above is important. To describe a passage as *djup* ‘deep’ is more appropriate if one opening is the “main” opening and if one direction is the “into”-direction and the other direction is the “way back” direction. This is generally the case with a hole in the ice (see section 10.4.3). In the example of (419), the man’s perspective still dominates, even if the seal will go from the water up on the ice, thus reversing the preferred direction. The bottom of the hole is less accessible than the top and the extension of the dimension probably difficult

to assess. There are definite difficulties associated with getting to the bottom and getting up from the bottom. These circumstances make the hole in the ice similar to several other cases where *djup* ‘deep’ describes containers, especially those associated with security/danger.

In the example of (420), a path is described as *djup* ‘deep’.

- (420) Hon går fram till taggtrådssnåret och in i en *gång* så *djup* att man inte längre ser karlen som arbetar på att klippa upp den. (B76–77) ‘She walks up to the mass of barbed wire and into a path so deep that she can no longer see the man clearing it.’

The path through the barbed wire is a kind of passage. It is described as *djup* ‘deep’ even though it can be noted that the path has not yet been completed. As soon it has been cleared and extends all the way through the wire, it will probably no longer be described as *djup* ‘deep’ but as *lång* ‘long’.

The function of passage is more frequent in relation to the dimensional adjectives *smal* ‘narrow/thin’, *vid* ‘broad’ and *trång* ‘narrow/tight’.<sup>51</sup>

### 10.4.5 Traces

The next example (421) illustrates how *djup* ‘deep’ can describe traces and marks in other objects. There are 15 such instances (out of 205) in the corpus.

- (421) Vintertullsgatan var också gropig och besvärlig, under snösmältningen hade tunga lastvagnar grävt *djupa spår* i leran och sörjan. (B80–81) ‘Vintertull Street was also bumpy and tiresome: when the snow melted heavy lorries had made deep ruts in the mud and slush.’

The example (421) shows a different kind of object, described as *djup* ‘deep’. Here, traces in the mud are called *djup* ‘deep’. The traces derive from heavy goods vehicles. Other examples are *djupa jack* ‘deep gashes’, *djupa märken* ‘deep marks’ and *djupa skårar* ‘deep scratches’. In the example of (421), the wheels of the vehicles constitute the content. The wheels force themselves down into the ground, creating new space for themselves. The container is thus created by the process of inserting the content into the container. As mentioned in section 10.2.2, Vandeloise defines the preposition *dans* in terms of content/container, where the content moves towards the container, and not *vice versa* (Vandeloise 1994:175). In the case of traces, the content (the wheels) moves towards what will become the container (the traces). I have counted all traces, jacks

<sup>51</sup> In one of the dictionaries, however, the collocation *djup gång* ‘deep pathway’ is recorded to exemplify the meaning of *djup* ‘deep’ with the wording “långt inträngande, som sträcker sig långt inåt *en d. gång, d-a valv*” ‘penetrating far, which extends far inwards a deep pathway, deep arches’ (Illustrerad svensk ordbok).

and the gashes as having unspecified orientation, although traces often have an actual vertical orientation, because the vehicles creating the traces drive on more or less horizontal planes.<sup>52</sup> In an example like (392), repeated here as (422), the lack of orientational specification is obvious.

(422) Bredvid den stora gropen i snön låg en bit av björnbroderns bäckenben med *djupa skårar* efter tänder. (B76–77) ‘By the large hole in the snow lay a piece of the bear brother’s pelvis with deep teeth marks.’

The orientation of the marks (jacks, gashes, scratches) is not specified irrespective of whether the object they form part of has specified or non-specified orientation. This means that the marks can have any orientation. It is perfectly coherent to describe a hole in the ceiling as *djupt* ‘deep’ (*djupt hål i taket* ‘deep hole in the ceiling’, see SAOB on *djup* and Weydt and Schlieben-Lange (1998) for the German equivalents). The potential content of any hole in the ceiling would probably fall out of it (due to gravity). The containment function of such marks is thus limited and restricted mainly to the (momentary) containment of the instrument that originally created the cavity. The mark/trace resembles “real” containers in terms of shape. In the example of (422), the orientation of the bear pelvis is unspecified and so are the scratches. For some marks, the mark can temporarily contain something, as in (423).

(423) Dra fingret i skåran. (constructed) ‘Slide your finger along the groove.’

In (423), the container is the groove and the (temporary) content is the finger, which should be distinguished from the object that once created the cavity.

It was noted in section 10.4.4 that the central case of the complex category corresponds to a simple category with prototypical and peripheral uses. Prototypical uses include *djup* ‘deep’ and a noun referring to a container substance (water). It was claimed that objects that do not function as containers but have similarities in shape to containers could be described as *djup* ‘deep’, as in *djup klyfta* ‘deep cleft’. In the same way, objects that function as traces have similarities in shape to containers. These uses are considered as peripheral in the simple category. Uses where *djup* ‘deep’ has unspecified orientation belong either to the case of *djup* ‘deep’ having vertical orientation (the central case), or to the case of *djup* ‘deep’ having horizontal orientation (the non-central case). Thus the two cases may overlap in this regard.

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<sup>52</sup> When it comes to orientation, some objects are truly borderline cases. It can be debated whether or not traces in the ground should be counted as vertically oriented. Holes have been counted as vertically oriented, when described as *djup* ‘deep’, however, holes may of course exist in all orientations. In Chapter 5 on *hög* ‘high/tall’, a hole is described as *hög* ‘high’. Then, the hole is regarded as having no canonical vertical orientation, see section 5.4.13, which has the title Less prototypical uses – the borders of *hög* ‘high/tall’.

### 10.4.6 Shape

In this study I would like to include the shape of the object described as *djup* ‘deep’ as one aspect of the semantics of the adjective. I want to relate the shape to the function of container. The nature of the top/front of the object is partly an issue of function, partly an issue of orientation, partly an issue of shape. The importance of the top/front will also be examined in the present study.

Linde-Usiekiewicz (in manuscript) does not give any shape or Gestalt criteria regarding the Polish *głęboki* ‘deep’. It can be assumed that for many artefacts, such as drawers, boxes, bowls etc., certain shape-related qualities facilitate acting as host. A bowl is obviously a suitable host for soup as an intruder, for example, with its open top and solid sides.

Unlike Linde-Usiekiewicz, Lang (1989) gives detailed specifications regarding shape and proportion. In the study, a list of possible object types which can be described as *djup* ‘deep’ are given. These are: river, brick, house, window-sill, wardrobe, plot, dish and crater. Note that this list of object types includes a few non-containers (brick, window-sill and possibly plot).

As mentioned in 10.4.4, Lyons (1977) argues that if an object is hollow, its smallest dimension will be described as *deep*. Lyons does not elaborate on how the object should be hollow. It is not clear whether the object should have a bottom/back or if it can be hollow all the way through, like a pipe or tunnel. Furthermore, an object with canonical vertical orientation can be described as *deep*, if the extension is downwards from the point of reference. *Deep* can also be used to refer to the extension from front to back of a hollow object with an inherent or canonical front. Lyons’s analysis is not satisfactory for Swedish *djup* ‘deep’, since a passage can be regarded as hollow and is not described as *djup* ‘deep’, see the discussion on triumphal arch in section 10.4.2. According to Spang-Hanssen (1990), the constitution of the top or the front of the object is crucial. Both inner and outer measurements can be described as *profond* ‘deep’. The claim is made in Weydt and Schlieben-Lange (1998) that only inner measurements can be described as *tief* ‘deep’, and that preferably, the inner space should not go all the way through (as is the case for a tunnel which has two openings and is thus not easily described as *tief* ‘deep’).

Some of Lang’s list of objects have both internal and external dimensions (house, wardrobe, and dish), some only external dimensions (brick, window-sill), some only internal dimensions (river, crater), whereas for one object type, the distinction is not valid since the object is two-dimensional (plot).

In Swedish, both two-dimensional surfaces (*en djup hylla* ‘a deep shelf’, *djup skrivbordsyta* ‘a deep desktop’) and three-dimensional object (*ett djupt skåp* ‘a deep cupboard’, *en djup brunn* ‘a deep well’) can be described as *djup* ‘deep’. Three-dimensional massive objects, like bricks, are rarely

described as *djup* ‘deep’. Most native speakers reject the use of *djup* ‘deep’ in relation to bricks and toy wooden blocks. This concurs with Lyons (1977), who writes that English *deep* describes hollow, not solid objects, as well as with Weydt and Schlieben-Lange (1998), where use of *tief* to refer to solid objects are described as “technical language”. However, the surface of such a three-dimensional, massive object may be described as *djup* ‘deep’ in Swedish. This is the case when a shelf is described as *djup* (*en djup hylla* ‘a deep shelf’). The issue of two-dimensional surfaces is further discussed and exemplified later on in this section.

For several of the dimensional adjectives, shape is an important issue. However, for *djup* ‘deep’, the relation of containment dominates the issue of shape. Nearly any shape could be described as *djup* ‘deep’, as long as it constitutes a container. Not all shapes can form a container, and consequently there are shapes that are not called *djup* ‘deep’. Cuboids, cubes, cylinders, cones, and half-spheres may very well be described as *djup* ‘deep’, as well as organic shapes. Rectangles and possibly squares can also be described as *djup* ‘deep’ (*en djup hylla* ‘a deep shelf’, *en djup skiva* ‘a deep tabletop’). Below, containers of different types of shape will be discussed. In the latter part of the section, examples from the corpus will be taken into account to study what types of shape are common and what are not.

Even objects that function as containers cannot always be described as *djup* ‘deep’. This is the case for a bottle. The collocation *?en djup flaska* ‘a deep bottle’ sounds odd. If the bottleneck was removed and the sides of the cylinder evened, the object could be described as *djup* ‘deep’. In its original shape, the bottle possesses an opening but it is the wrong kind. It is too small. The opening of the bottle is primarily designed in order to pour liquid from the bottle, not in order to pour liquids (or put other objects) into the bottle.<sup>53</sup> For *djup* ‘deep’, the function of inserting something (an object, the human body or a part of the human body) into the container is privileged and takes priority over the extracting something from it (see 10.4.3). Further, the line of sight, when checking the contents, is not through the opening but rather through the glass, sideways. Rakhilina (2000) suggests that a container, into which contents are poured, or from which contents are poured out, are not described as *glubokij* ‘deep’. Contents should rather be put into or taken out from the container. The distinction does not seem to be valid for Swedish *djup* ‘deep’, since hot tubs and sinks may be described as *djup* ‘deep’. These are objects into which water is poured.

*Djup* ‘deep’ preferably describes internal dimensions. But there are cases when *djup* ‘deep’ describes objects that lack any internal dimension. This is the case for *djupa rötter* ‘deep roots’ and *djup köl* ‘deep keel’. The roots extend in the ground (or in soil in a pot) whereas the keel extends in the

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<sup>53</sup> It can be noted that when building a ship in a bottle, pieces are inserted. In this context, a bottle may probably be described as *djup* ‘deep’.

water. If analysed in terms of container/content, the roots and the keel would correspond to the content, which is contained in the ground and in the water, respectively. This is in accordance with Linde-Usiekniewicz's analysis of Polish *głęboki* 'deep'. The same discussion is valid for the collocation *djup tjäle* 'deep ground frost'. Such a use of the adjective is shown in (424).

- (424) Fast å andra sidan, med denna *djupa tjäle*. Begrava honom i snön? Vänta till våren? (B80–81) 'But on the other hand, considering how deep the frost is in the ground. Bury him in the snow? Wait until the spring?'

*Tjäle* 'ground frost' is a condition the ground has.<sup>54</sup> The ground frost cannot be moved and it cannot exist separately from the ground in which it is located. The ground frost makes the soil difficult to penetrate, which complicates the issue of internal dimensions. Therefore, the shape assumed by the frost is the same as top layer of the ground. Although example (424) is the only example in the corpuses, it is not an uncommon collocation. In the corpus (parole) there are several examples of *djup tjäle* 'deep ground frost'.

In some of the examples from (parole) it is apparent that the *tjäle* 'ground frost' is comprehended as an object that gradually moves downwards, see (425).

- (425) Det bästa sättet att skydda dem är nämligen att täcka över bergytan så att inte tjälen kan tränga ner. (parole) 'The best way to protect them, you see, is to cover the surface of the rock so that the ground frost cannot force its way down.'

In (425) the ground frost is forcing its way down into the ground. The motion (of the frost into the ground) is consistent with Vandeloise's analysis of the content (in this particular case corresponding to the frost) moving towards the container (in this particular case corresponding to the ground). The motion of the frost moving into the ground is also consistent with Linde-Usiekniewicz's analysis of the intruder (in this particular case corresponding to the frost and in general corresponding to the content) invading the host (in this particular case corresponding to the ground and in general corresponding to the container).

In (426), the ground frost is comprehended as crawling up closer to the surface.

- (426) Solen gassar över Gamla Ullevi, och tjälen kryper närmare ytan – någon centimeter då och då. (parole) 'The sun is blazing over Old Ullevi and the

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<sup>54</sup> *Tjäle* 'ground frost' is a state when the water in the ground has frozen to ice. The state has consequences primarily for the construction industry since building must withstand certain movements caused by ground frost. Ground frost normally appears during winter in the Boreal zones. The ground frost in Sweden, which is the location where most of the corpus narratives take place, is normally 1.0–1.5 meter deep. The ground frost starts at the surface, which is colder than the soil deeper down (Nationalencyklopedin).

frost in the ground is creeping towards the surface – only a few centimetres thick in places.’

The ground frost in (426) is moving in the opposite direction during the defrosting season. It illustrates the content (corresponding to the frost) leaving the container (corresponding to the ground), discussed in 10.4.3 as a motion ensuing the container relation.

The collocation *djup tjäle* ‘deep ground frost’ could be analysed in analogy with the description of the top-fed washing machine. In the same way as *tvättmaskinen är x cm djup* ‘the washing machine is x cm deep’ possibly describes the (inner) measurements of the space that the washing machine occupies, the collocation *djup tjäle* ‘deep ground frost’ could describe the (inner) space of the ground that the frost occupies. Analysed like this, the frost has external measurements while the ground has internal ones. What speaks in favour of this solution is the concrete fact that ground frost is by definition very firm and hard, which makes it difficult to penetrate. The ground frost would, in other words, be so compact that it is massive, and thus have no internal dimensions.

Whether or not the ground frost has internal/external measurements is in my opinion an open question.

Analysing the use of *djup* ‘deep’ to describe roots or a keel, the outcome could, in analogy with the washing machine and the ground frost, involve the description of the measurements of the container, which, in the case of the roots, is the ground and in the case of the keel, is the water. The object (the root and keel) would then serve as a kind of yardstick. This would indicate qualities such as the depth of fertility for the ground, and for the water merely the depth of the water. The content/container relationship is complex. In measuring the content we are also, in a way, measuring the container too (or at least its minimal measurements).

The collocations of *djupa rötter* ‘deep roots’, *djup köl* ‘deep keel’ and *djup tjäle* ‘deep ground frost’ demonstrate similarities to the positional use of *djup* ‘deep’. In this use, the object whose position is described as *djup* ‘deep’ is the content and its immediate environment (often the ground) is the container (as in *djupa lager* ‘deep layers’), whose extension is described by *djup* ‘deep’:

(427) Varför väljer du inte ut den *djupaste punkt* du kan hitta mellan här och Fhada och slänger henne över relingen med ungefär fyrtio kilo gammal kätting runt benen? (B76–77) ‘Why don’t you choose the deepest point you can find between here and Fhada and throw her over the railing with about forty kilos of old chain tied round her legs?’ = (416)

(428) Ytterligare avkylning av ytvattnet gör detta lättare än de *djupare lagren*... (B80–81) ‘Further cooling of the surface water makes it lighter than the lower layers...’ = (389)

(429) Av Johans del återstod nu bara själva djupmyren, där torven på en del ställen var mer än två meter djup. Från början hade det där varit en grund sjö, som

så småningom växt igen. Men på de *djupaste ställena* fanns vattnet kvar under torven, och man kände hur marken gungade, när man körde över den. (B76–77) ‘Of Johan’s share, there remained only the deep bog itself, where the peat in some places was more than two metres deep. At the beginning there had been a shallow lake, which had gradually silted up. But in the deepest places there was still water below the peat, and you felt the ground give way as you drove over it.’

- (430) [...] inför oväder händer det att rävar går in och lägger sej i det sannolikt vidsträckta systemet av *djupa gångar*, torra hyllor och kittlar. (B80–81) ‘[...] before a storm, foxes may enter and lie down in the probably extensive system of deep runs, dry platforms and dens.’

In (427) the water can be regarded as a container substance, and the *punkt* ‘point’ as the content. In (428), too, the water can be regarded as a container substance, and the *lager* ‘layer’ as the content. In (429) the swamp (the ground) is the container and the *ställen* ‘places’ the content. In (430) the ground is the container and the *gångar* ‘runs’ are the content. If analysed like this, the positional uses of *djup* ‘deep’ includes an opening or an open side, since the water, the swamp and the ground are most easily accessed from the top.

Positional *djup* ‘deep’ thus shows similarities with dimensional *djup* ‘deep’. Positional *djup* ‘deep’ describes a straight extension, perpendicular to a reference plane. Dimensional *djup* ‘deep’ can be expressed in similar terms. The dimension described as (dimensional) *djup* ‘deep’, constitutes a straight – not a crooked or bent – extension, as opposed to the dimension described by *lång* ‘long’. The plane corresponding to the reference plane of positional *djup* ‘deep’ would, for dimensional *djup* ‘deep’, be the front or the top of the object. The front or the top of the object usually constitutes an even plane. In the network model, corresponding to the complex category, positional *djup* ‘deep’ is seen as part of the central case (a container having a canonical vertical orientation). Thus, positional *djup* ‘deep’ has been regarded as monosemous with *djup* ‘deep’ describing a vertical dimension, like positional *hög* ‘high’ has been regarded as monosemous with *hög* ‘high/tall’.

Moreover, positional *djup* ‘deep’ shows similarities with positional *hög* ‘high’ in the sense that both adjectives describe an extension from a reference plane to a point at which the object is located. The object can be of any size and zero-, one-, two- or three-dimensional. For both adjectives, the extension between the reference plane and the object is straight, and perpendicular to the reference plane.

Note that for dimensional *hög* ‘high/tall’, the reference plane is separated from the object, described as *hög* ‘high/tall’, whereas for dimensional *djup* ‘deep’, the reference plane is not separated from the object, described as *djup* ‘deep’. *Djup* ‘deep’ is measured from one side of the object.

The discussion above suggests that not only the concept of container, but the container/content relationship is strongly associated with *djup* ‘deep’. It

might be possible to refer to this by saying that the object described as *djup* ‘deep’ is most often a container but can sometimes be the content in another container. When the object is the content in another container, this container is usually the ground although it may also be some other space. This description would form an alternative to the one suggested in section 10.4.3, which contained a discussion of whether describing a washing machine or roots as *djup* ‘deep’ was actually targeting the space surrounding the machine/the roots. I regard the two solutions as separate suggestions and would not press the point in favour of either of them.

So far, solid and hollow objects have been discussed. Returning to Lang’s list, there are two more interesting shape types, namely crater and river.

If we start with crater, it can be stated that such an object lacks external measurements. Objects of this kind are frequently described as *djup* ‘deep’ in Swedish (*ett djupt hål* ‘a deep hole’, *en djup ravin* ‘a deep ravine’). The term negative part (from Jackendoff and Landau (1991), see section 5.4.13) is an appropriate characterisation of the group of holes, crevices and ravines in my corpus. These objects are not mobile since they are part of the ground or the geography. There are a large group of objects that constitute negative parts in the corpus and in fact, this group is the largest. Nearly half of all the examples belong to this group (examples regarding the human body excluded). In the elicitation test, 15 of the 37 nouns referred to objects whose shape is negative (such as *hål* ‘hole’, *håla* ‘hole’, and *brunn* ‘well’). Of the examples in the corpus where *djup* ‘deep’ describes a vertical extension, the shape most frequently encountered is an organic one with internal measurements only; thus the objects are negative parts. The organic shape means that the shape is not symmetrical or regular. Good examples of this kind are holes, ravines and furrows.

- (431) Den var delad i två hälfter av en inte alltför *djup ravin*, som bröt enformigheten i det eljest tröstlösa landskapet. (B80–81) ‘It was divided into two halves by a not too deep ravine, which broke up the monotony of the otherwise dreary landscape.’

The object, a ravine, is “scooped out” of the ground.<sup>55</sup> In the group of negative parts, nearly all the objects that are described by vertically oriented *djup* ‘deep’ (totally 71) are “scooped out” of the ground:

- (432) Pappan gav sig ut på tomten och grävde ett *djupt hål*. (B80–81) ‘Daddy went out in the yard and dug a deep hole.’

There is one instance, where a negative part is “scooped out” of an object that is not the ground:

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<sup>55</sup> I use quotation marks to recall that the object has not literally (at least not in all cases) been scooped out in another object.

- (433) Eva satt i ett vackert väntrum med vitmenade väggar och avlånga soffor i mjuk smultron med en *djup glipa* mellan varje kudde så att alla skulle vara säkra på att ha sina stjärtrevir ifred. (B80–81) ‘Eva sat in an attractive waiting-room with whitewashed walls and oblong sofas in muted strawberry with deep divisions between each cushion to guarantee everyone enough room to sit.’

Among the instances concerning negative parts, 20 examples include *djup* ‘deep’ describing a horizontal dimension. The objects described as *djup* ‘deep’ are “scooped out” of various objects. One example concerns a cave and although it is not “scooped out” of the ground, it is still “scooped out” of nature:

- (434) Nåväl, den första människan var liten som en schäfer och häckade i träden på Afrikas savanner. Bara de starkaste och klyftigaste hade överlevt och flyttat upp till Spanien och bosatt sig i en *djup grotta*, som de dekorerat med de mest fantastiska målningar av bufflar och hjortar. (B76–77) ‘All right, the first people were no bigger than an Alsatian and bred in the trees on the African savanna. Only the strongest and the brightest would have survived and moved up to Spain to settle in a deep cave, which they decorated with the most fantastic paintings of buffalo and deer.’

It is not clear whether the cave is actually *djup* ‘deep’ in a vertical or in a horizontal way. I have assumed that it is horizontally oriented, probably because of the conception that prehistoric humans lived in caves whose entrances were in the vertical plane (comparable to a gate) and not in the horizontal (comparable to the aperture of a well).

Other examples concern objects that are “scooped out” of walls. Among these examples are several niches, one alcove, one fireplace and one box, see (435) for an example.

- (435) Nu flyger din fågel mot solen, säger hon och skjuter in kakan i den *djupa ugnen* i spismuren. (B80–81) ‘Now your bird is flying towards the sun, she says thrusting the cake into the deep oven in the range.’

Some examples in the negative parts group concern non-oriented *djup* ‘deep’. The objects are traces, see section 10.4.5. One of these examples is shown in (397), repeated here as (436).

- (436) Träet var spräckt och hade märken efter björnens tänder, *djupa skårar* och hack (B76–77) ‘The wood was split and had marks from the bear’s teeth, deep scratches and cuts.’

The wood mentioned is a wooden rifle-butt.

Having discussed solid object, hollow objects and negative parts, a few types of shape remain. According to Lang’s list of possible shapes, *tief* ‘deep’ can describe a river. There are two ways to regard the river. The river could either be regarded as a dry furrow in the ground filled with water. As such, it is a negative part and shows similarities to the crater, but its shape is different. While the crater can be idealised to an upside-down

cone, the river(-bed) is idealised rather to a long, slim cuboid. Alternatively, the river could be regarded as consisting of water. The latter interpretation is probably more accepted, even if expressions like *vattnet i floden* ‘the water in the river’ can be observed. If the water is perceived as part of the river and not only being in the river, the river has not only a different shape from the crater but is also a different object-type, since the crater is a negative part whereas the river includes water.

The objects that are formed by water do not have an open side in the same sense as prototypical containers have, but one side is more open than the others. The water is accessed through this side (the surface).

In the corpus, there are 36 occurrences (of 205) of water described as *djup* ‘deep’, such as lakes, rivers, seas and pools. The high rate of nouns referring to water in the elicitation test, the dictionary articles and native speaker intuition have been taken to justify regarding water (container substance) as the prototype of the central case. In (437), an example from the corpus is given.

- (437) När färjan kommit ut på *djupt vatten*, lämnade de sitt gömställe. (B76–77)  
 ‘When the ferry had reached deep water, they left their hiding place.’

According to Lang, a plot can be described as German *djup* ‘deep’ in German. A plot is a two-dimensional surface. As mentioned briefly above, in Swedish, two-dimensional surfaces can be described as *djup* ‘deep’. Two such examples are shown in (438)–(439).

- (438) Efterhand glesnar landskapet, vatten glimmar fram, vägen löper efter *djupa vikar* och täta vassar. (B80–81) ‘Gradually the landscape becomes more open, the road runs alongside deep bays and dense reed beds.’
- (439) *Skolgården* var bred men inte särskilt *djup*, och trafikbullret måste verka störande i klassrummen på framsidan: han kunde föreställa sig dånet och vibrationerna. (B76–77) ‘The schoolyard was wide but not particularly deep, and the noise of the traffic must be annoying in the classrooms at the front: he could imagine the roar and the vibrations.’

The extension described as *djup* ‘deep’ is horizontal. Neither the bay nor the schoolyard seems to have outer or inner dimensions for which this is an adequate description. I would like to describe this use of the dimensional adjectives as implying that the object is reduced to two-dimensionality. If the bay is perceived as the equivalent of the water surface, it has only two dimensions. The water obviously has a vertical dimension too (which normally would be considered the depth), but here *djup* ‘deep’ has been used to describe a horizontal dimension, more or less neglecting the vertical dimension. The schoolyard can be comprehended as a two-dimensional surface, or as a three-dimensional space with fences marking its outer limits. The bay and the yard are typical examples of objects that are reduced to two dimensions, but where a third dimension can be retrieved without difficulty. It is possible to describe something below the surface (e.g. in the

water) or above the surface (e.g. a tree in the yard), this point also being part of the object (the water is part of the bay, the tree is part of the school-yard). Moreover, flat objects, such as a shelf, can, just like surfaces, be conceptualised either as two-dimensional surfaces or as three-dimensional objects (Herskovits 1986). (See the windowsill in Lang's list.) Thus, a three-dimensional solid object, like a *bordsskiva* 'tabletop' may be described as *djup* 'deep' and *bred* 'wide', adding *tjock* 'thick' if a need arises to talk about the third dimension. In this, Swedish is close to the German system according to Lang (1989), where solid objects like bricks can be called *tief* 'deep'.<sup>56</sup> A brick, however, is not flat enough to be conceptualised as a two-dimensional surface, and it cannot be described as *djup* 'deep' in Swedish, see Chapter 8 on *tjock* 'thick'.

It can be noted that when describing a horizontal dimension *djup* 'deep' may describe a (top) surface, such as a shelf or the top of a desk, as in *en djup hylla* 'a deep shelf', *en djup skiva* 'a deep tabletop'. When *djup* 'deep' is used about a vertical dimension, the adjective does not describe a surface (*?en djup tavla* 'a deep picture', *?djup anslagstavla* 'a deep billboard').

I have claimed that *djup* 'deep' is intimately connected to the concept of container. It is quite common to use the same spatial expression for flat, clearly defined parts of space as for containers, according to Herskovits (1986) and Lakoff and Johnson (1980). Herskovits refers to *meadow* as such a flat space. She writes that *meadow* can both be combined with *on*, as in *the grass and the tree on the meadow*, and with *through*, as in *through the meadow*, *through* implying a movement into a volume, thus making the meadow a three-dimensional unit. Herskovits rejects the idea of considering *meadow* ambiguous, since language users see no ambiguity. Rather, she suggests, *meadow* should be considered maximally inclusive, with the surface and a layer of ground and one of air. This solution permits two geometric conceptualisations, the first being the canonical one, and the second the ground area. Herskovits proposes that particular examples either imply one conceptualisation or the other, or can, in fact, allow both (Herskovits 1986:61).

Lakoff and Johnson approach the problem from a slightly different point of view. According to the authors, human beings experience themselves as containers, with a bounding surface and an in-out orientation. This in-out orientation is projected onto other physical objects, and even when there are no physical boundaries, boundaries can be imposed, so that the territory of a country is considered to have an inside and an outside (Lakoff and Johnson 1980:29). From this, it follows that a flat area can be conceptualised as a container even if a container ideally should have three dimensions while a flat area only has two.

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<sup>56</sup> However, this statement is challenged by Weydt and Schliben-Lange (1998) where it is claimed that the use of *tief* 'deep' regarding solid blocks belongs to a technical description.

As mentioned in section 10.2.2, Vandeloise rejects the idea that geographic regions should be categorised as two-dimensional in the first place. He writes: “Nevertheless, even though human beings usually cross over the boundaries of their countries on foot or by car, there is a height at which missiles and rockets leave the aerial space of their country. In this case, a third dimension becomes pertinent.” (Vandeloise 1994:166.) The three different studies, Herskovits (1986), Lakoff and Johnson (1980) and Vandeloise (1994) all acknowledge that geographic regions are three-dimensional, but while Herskovits and Lakoff and Johnson suggest an alternative interpretation (the region can be comprehended as two-dimensional), Vandeloise refuses to do so.

The two-dimensional objects (or, rather, the objects that are reduced to two-dimensionality) in my corpus are bays and a school-yard. Another object, not represented in the corpus but recognised by native speakers, would be a *hylla* ‘shelf’. The *hylla* ‘shelf’ is interesting. It is often attached to a wall. It could be conceptualised as a container with the wall to which the shelf is attached constituting the inside of the back. Moreover, the bottom corresponds to the shelf itself although not only the front but also the top and left and right sides are missing. The storage space of the shelf would then be a kind of interior, delimited by the surface of the wall and the surface of the shelf.

We can now leave Lang’s list as all of the shape types it contained have been discussed. However, the corpus contains one more type of shape which will be discussed in the next section 10.4.6.1.

I have claimed that the function of container is the key to the semantics of *djup* ‘deep’. Even if shape does not appear important for any understanding of which objects are described as *djup* ‘deep’, it actually does play a major part for objects that display similarities of shape to others which function as containers. This happens on the level of *djup* ‘deep’ being considered a simple category. It has been suggested that on the level of the complex category, two cases can be discerned: *djup* ‘deep’ describing a container with a canonical vertical orientation and *djup* ‘deep’ referring to one with a canonical horizontal orientation. The relationship between the cases involves orientation.

Each of these cases corresponds to a simple category, where some uses are prototypical, and some are peripheral. On this level, shape is an important issue. Objects described as *djup* ‘deep’ exhibit similarities in shape to the prototypical uses. The relationship of container/content is another important factor. As has already been mentioned, uses where *djup* ‘deep’ describes a container with no specified orientation, are peripheral instances either of cases of canonical vertical orientation or canonical horizontal orientation. These two cases may overlap.

### 10.4.6.1 Loose solid substances

In the corpus, we find several examples involving snow. One of these examples can be seen in (440).

- (440) De flesta hade inte skidorna på sig utan rutschade ner på ändan eller gick och försökte låta bli att trampa igenom skaren ner i den *djupa snön*. (B76–77)  
 ‘Most of them didn’t have skis on but slid on their backsides or walked and tried not to tread through the frozen crust into the deep snow.’

Like the negative examples and the water-type, the snow-type examples refer to (potential) containers. Here again, to use Lakoff and Johnson’s terminology, it is a case of container substance (Lakoff and Johnson 1980:30). The snow, however, offers greater support than water. As opposed to water and empty space, it is possible to walk on snow and to leave traces in it:

- (441) Lauritz vänder sig om för varje steg och betraktar med begrundande förtjusning sina egna spår i den *djupa snön*. (B76–77) ‘Lauritz turns around at every step and contemplates, with relective delight, his own tracks in the deep snow.’

I will call snow-type objects loose solid substances in accordance with Herskovits (1986), see Chapter 8 on *tjock* ‘thick’, page 187 for an elaboration of the term. Among the loose solid substances, can be counted not only snow but also sand and topsoil, of which there are a few examples in the corpus. Additional examples involving peat, foam, and great drifts of sunflowers and hair are included.

The loose solid substances possess no open side in the same sense as other containers, but penetration is possible. In fact they are penetrable from all sides (top, bottom, sides), although because these substances are spread on the ground, the penetration from below is inconvenient. When expressed in the text, penetration comes from above:

- (442) Varje steg vägde minst ett ton; han sjönk ner i den *djupa snön*. (B80–81)  
 ‘Every step weighed at least a ton; he sank down into the deep snow.’

Even if the penetration of the loose solid substances is vertical, suggesting that the top (layer) of the snow is the most open side, it is still possible to imagine penetration from other sides. Think of a pile of snow in which children are digging tunnels.

Linde-Usiekiewicz (in manuscript) suggests that Polish *głęboki* ‘deep’, when used about non-solid substances such as snow, sand, mud and water, describes the relative capacity of the container. These types of objects are containers only when an intruder is penetrating them (Linde-Usiekiewicz in manuscript:section 4.4).

The loose solid substances can either be conceptualised as covering the ground, or as being a part of the ground.

The group is interesting since the antonym of *djup* ‘deep’ is not *grund* ‘shallow’, but *tunn* ‘thin’. In this respect the loose solid substances differ from water, for which *grund* ‘shallow’ is the antonym. Antonymy will be dealt with in more detail in section 10.7.1.4.

Another related group of objects is formed by examples from the corpus concerning mats, grass, moss and fur. One of these examples can be found in (443).

- (443) Vi steg in i ett rum med heltäckande *djup matta* och ljusa möbler i sträng symmetri. (B80–81) ‘We entered a room with a deep fitted carpet and bright furniture in strict symmetry.’

*Djup* ‘deep’ describes a vertical dimension. The object, a mat, is hardly mobile (since it is fitted), although other mats may be. It is described according to three dimensions. It shows similarities to loose solid substances in that sense that it can be trodden on and it is possible to leave traces/marks in it. The object can, like loose solid substances contain something. Technically, it would be possible to distinguish between its external and internal (vertical) measurements but it is difficult to imagine for what purpose. The outer measurements would then be described by *tjock* ‘thick’, and the inner ones by *djup* ‘deep’. (There are examples in the corpus where *tjock* ‘thick’ describes a mat, see Chapter 8 on *tjock* ‘thick’, section 8.5.2.) The object is formed of small, oblong parts that are attached at their lower end. Other examples are shown in (444)–(446).

- (444) Kaffepannan, som kokade över och fräsande spred ut sitt innehåll i *djup mossa*, såg på. (B76–77) ‘The coffee pot, which boiled over and spread its contents with a splutter into deep moss, was watching.’

- (445) Till slut hade han kommit på henne där hon låg på rygg, sade han, nästan täckt av det *djupa gräset* vid Kaknästornet. (B76–77) ‘In the end he found her, lying on her back, he said, almost covered by the long grass at Kaknäs Tower.’ = (408)

- (446) På en del ställen hade den fyra fingrar *djupa pälsen* bränts bort helt och hållet och det nakna köttet låg blottat i grova åsar och fåror som öppnade sig i sprickor och sår. (B76–77) ‘In some places the fur, which was four fingers deep, had been burned away altogether and the bare flesh was exposed in thick ridges and furrows which opened out into cracks and sores.’

Unlike the mat, the moss and the grass form part of the ground and cannot be separated from it. Moss and grass are often conceptualised as part of the ground rather than distinct entities. And indeed, a mat can be conceptualised as part of the ground (or the floor), too. The fur of (446) can be conceptualised as a part of the dead body. These substances can alternatively be conceptualised as coats. I have called this group “small parts attached to a surface” and considered them a subgroup to loose solid substances. These objects can also be described as *tjock* ‘thick’ in terms of their resistance to (primarily) horizontal penetration, see Chapter 8, page 194.

The objects in this group do not have an open side in the same sense as other containers have. They cover an area and are least accessible from the bottom, especially the mat and the fur but also the grass and the moss. In (447), there are silent footsteps on a carpet. Even if we do not put our feet down in a strictly perpendicular angle in relation to the ground, the impression is that the foot comes from “above” rather than from “the side”. The preposition *på* ‘on’ further enhances the impression that the foot comes from above.

(447) Hennes fotsteg är ljudlösa på den *djupa heltäckningsmattan*. (B76–77) ‘Her footsteps are silent on the deep fitted carpet.’

Thus, in (447) the mat would be approached from the top by the foot so that the top is its most “open” side. Another example has already been cited in (444), in which a coffee pot boils over and spreads its contents in the moss. Depending on how high the coffee pot is and how deep the moss is, the movements of the coffee from the pot down into the moss can be more or less vertical. It can be stated that in order to place something in moss or grass or on a mat, it is possible, although not necessary, to approach from the top. The top can thus be said to include a kind of “openness”.

In order to conceptualise grass as a container, the grass would need to form an inner room. Such an inner room has walls and a top. Consider the already mentioned example (445), where a woman lies in the deep grass. When consulting native speakers, they agree that the grass of (445) is regarded as having some kind of even “top”, closer to a than to b in Figure 27. The woman is thus perceived as enclosed by the grass, which forms a kind of Gestalt. Application of this interpretation would render the “top” an open side. It is interesting to note that when consulting native speakers, they tend to conceptualise the object, described as *djup* ‘deep’, as having an even top or some kind of perpendicular plane, from which the extension of *djup* ‘deep’ starts. The other end, i.e. the bottom or the back, can be of any shape. This observation concurs with Herskovits, who shows that the interior of a container is generally bound by a plane through the rim (Herskovits 1986:69).

Combinations of *djup* ‘deep’ with nouns such as *snö* ‘snow’, *sand* ‘sand’ and *mossa* ‘moss’ are uses which, considered as members in the simple category, correspond to the central case in which *djup* ‘deep’ describes a container with canonical vertical orientation. Like the prototypical use *djupt vatten* ‘deep water’, *snö* ‘snow’ and other loose solid substance nouns refer to container substances. There are some differences, though. In many cases, the containing capacity is lower than for water. Further, the open side is less accessible than the surface of water.

#### 10.4.6.2 Forests

There are ten examples in which a forest or wilderness is described as *djup* ‘deep’. Seven of these express a container function, see (448), while the

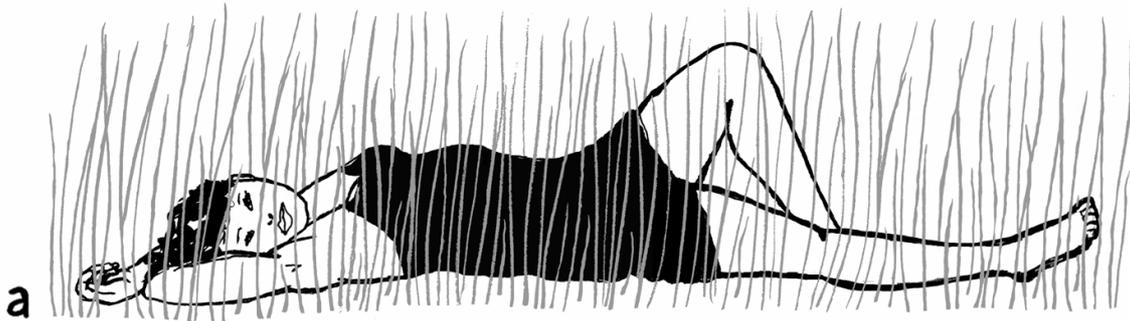


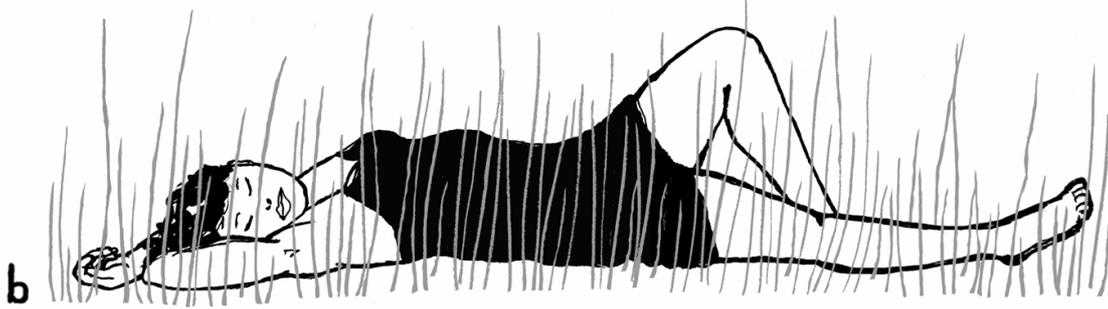
Figure 27 a, b. Person lying in grass.

forests of the three remaining examples can be regarded as potential containers, see (449).

(448) Riktiga farmor sitter sjukhusbunden och isolerad i de *djupa skogarna*. (B80–81) ‘Real grandma is confined to hospital and isolated in the depths of the forests.’

(449) [...] och hon rasade över de krafter som var på väg att ta grönskan ifrån henne, den *djupa skogen*, fågelsången, barrdoften, barnet som var jag [...] (B80–81) ‘[...] and she raged about the forces that were taking away the greenery from her, the deep forest, the bird song, the scent of pine, the child that was me [...]’

Fillmore (1997:40) suggests that *deep* as in *deep in the forest* means a location in a large bounded area, where the location is far from the boundary. The ten Swedish examples concerning forests share few qualities with the prototypical container as described in section 10.4.2. The quality of an open side is not shared, at least not if this quality implies greater openness than the other sides. All the sides of a forest (except the bottom/ground) are probably equally open so forests differ from all the other objects described as *djup* ‘deep’ (positional use and two-dimensional use excluded) in that they lack backs or bottoms. When describing forests, *djup* ‘deep’ denotes additional qualities such as wild, desolate, and vast (great), according to the dictionaries, see 10.1. Furthermore, there is a quality which could be expressed as “the object is difficult to penetrate”. Being difficult to penetrate means that the object, or parts of it, are inaccessible. There is an intuitive idea that the “deepest spot” of forests lies somewhere near their centres. This assumption is strengthened by expressions like *längst in i skogen* ‘furthest into the forest’, *det går inte att komma längre in i skogen* ‘you cannot get further into the forest’ which indicate a central location. Proceeding into a forest means going from more open space towards less open space. The centre shows similarities with the bottom or the inside of the back of other objects described as *djup* ‘deep’. If a content, like an apple, is placed in a container where the open side is



located at the top, like a bowl, it will stay put on the side opposite to the open side, at the deepest spot (in the case of the bowl this will be the bottom). When the contents are taken out again, their trajectory on the “way out” (upwards) is as long as it was on the “way in” (downwards). If the same procedure is performed with another container whose open side is not facing upwards, the way out will again be as long as the way in was. An example is a key, being put at the inside of the back (“the deepest spot”) of a drawer. First, the key is inserted in a horizontal direction. Then, the key is extracted, in the reverse horizontal direction. Similarly, if a person enters a forest and walks to the centre (“the deepest spot”), a certain distance has been covered. Although the same path need be chosen when leaving, as was the case for the apple in the bowl and the key in the drawer, the distance out will still be (approximately) as large. The bowl, the drawer and the forest all share the quality that the deepest spot is located at a place where the way out is as long as was the way in. Although the forest has several possible “entrances”, it is important to separate the forest from a passage. A passage need not include a location, which is less accessible, in terms of, for example, trees growing closer to each other, than some other location. Rather, a passage can be as accessible all the way through, and it lacks an evident centre.

I am not certain where the dimension described as *djup* ‘deep’ actually starts or ends regarding forests. *Djup* ‘deep’ when used about forests is only partly a dimensional adjective. The information about the dimensions is restricted to the overall area size of the forest (vast or great). The collocation *djup skog* ‘deep forest’ implies a forest covering a great area but it scarcely implies anything about the height of the trees or in other words probably implies no vertical dimension. This means that *djup* ‘deep’ describes a horizontal dimension and not a vertical one. *Djup skog* ‘deep forest’ primarily expresses the difficulty in penetrating the object. In that sense it displays similarities with *tjock soppa* ‘thick soup’ and *tjock borst* ‘thick bristle’ (see Chapter 8 on *tjock* ‘thick’). The antonym of *djup* ‘deep’ when used about forests is not *grund* ‘shallow’ but either *liten* ‘small’ or *gles* ‘open’.

*Djup skog* ‘deep forest’ has been considered a member of the simple category, where uses such as *djup grotta* ‘deep cave’ are closer to the prototype. *Djup skog* ‘deep forest’ is regarded as a peripheral use and it shares the quality of inaccessibility with the prototype.

## 10.5 The relationship between *djup* ‘deep’ and *hög* ‘high/tall’

In section 10.4.6, some similarities between positional *djup* ‘deep’ and positional *hög* ‘high’ were pointed out. Since both adjectives can operate on the vertical axis, they also correspond in other ways as well.

The main similarity between the two adjectives is that they can both operate on the vertical axis. The main difference is probably that while *hög* ‘high/tall’ is an adjective used mainly for external dimensions (although it may very well describe interior ones as in *höga valv* ‘high arches’), *djup* ‘deep’ is mainly an adjective for interior dimensions. Even when the adjective syntactically describes a noun representing an object with external dimensions only (like *rötter* ‘roots’), the possibility cannot be ruled out that semantically something else is being referred to, in this case the space surrounding the roots, i.e. the ground, which does have interior dimensions. The adjective *hög* ‘high/tall’ involves a quality of “standing out against a background” while the *djup* ‘deep’ invokes concealment instead, sometimes even dark, spaces in a (more or less) inaccessible interior. Furthermore, *hög* ‘high/tall’ has an upward direction while *djup* ‘deep’ has a downward direction.

Lang (1989) has some interesting ideas about the relationship between *hoch* ‘high’ and *tief* ‘deep’. Lang writes that *tief* ‘deep’ and *hoch* ‘high’ can be synonymous, i.e. they can describe the same extension. According to Lang (1989:310), the lexical item *hoch* ‘high’ behaves variously in terms of synonymy and antonymy, depending on whether it is being used in its dimensional or positional sense. In its dimensional sense Lang claims it is synonymous with *tief* ‘deep’, although *hoch* ‘high’ has an upward direction, while *tief* ‘deep’ has a downward direction while the antonyms of its dimensional sense are *niedrig(er)* ‘low(er)’ and *wenig(er) tief* ‘scarcely/less deep’. In its positional sense, on the other hand, *hoch* ‘high’ is synonymous with *weniger tief* ‘less deep’. *Hoch* ‘high’ has still an upward direction, and *tief* ‘deep’ a downward one. *Hoch* ‘high’ is antonymous with *tief(er)* ‘deep(er)’ and *niedrig(er)* ‘low(er)’.

The relationship between HIGH and DEEP will be discussed with regard to Swedish. To begin with, the dimensional meaning will be considered and then the focus will turn to its positional meaning. I will follow Lang closely at first. Lang argues that the two sentences (450) and (451) express the same proposition.

(450) Der blaue Topf (a) ist *höher* als der rote (b). (German)

Den blå grytan (a) är *högre* än den röda (b). (Swedish) ‘The blue pot (a) is higher than the red one (b).’

(451) Der blaue Topf (a) is *tiefer* als der rote (b). (German)

Den blå grytan (a) är *djupare* än den röda (b). (Swedish) ‘The blue pot (a) is deeper than the red one (b).’

I would like to point out that Lang neglects the fact that one condition for synonymy between *hoch* ‘high’ and *tief* ‘deep’ is that the two objects compared (in this case, two pots) share a ratio between inner and outer measurements. In Figure 28, his statements about *hoch* ‘high’ and *tief* ‘deep’ as synonymous holds, but in Figure 29, it does not hold. Thus, for Figure 28, both (450) and (451) are true. However, for Figure 29, (450) is true, but (451) is not true. If the blue pot (a) (see Figure 29) has a much thicker bottom than the red one (b), the red pot (b) might have smaller external dimensions (not as high as the blue one), but have a bigger internal volume (i.e. the red pot (b) is deeper than the blue pot (a)). In Figure 29, the red pot (b) is *niedriger* ‘lower’ and *tiefer* ‘deeper’ than the blue one. If Lang’s analysis is applied, this must be regarded as a contradiction, since *hoch* ‘high’ is synonymous with *tief* ‘deep’ and antonymous with *niedrig* ‘low’ in their dimensional sense. In Swedish, *djup* ‘deep’ is (principally) an internal measurement. There is of course some correlation between how much the inner measurement of a given outer extent may vary, but there is by no means the 1:1 relation predicted by Lang. To sum up, first, HIGH and DEEP indicate the same dimension, measured from different reference points. HIGH is measured upwards, DEEP is measured downwards. Secondly, in order to compare two objects, the objects must share a ratio of external and internal measurements if the adjectives HIGH and DEEP are to be interchangeable.

I will now move on to the positional sense. According to Lang, in German it is possible to describe positional relationships with both *tief* ‘deep’, *weniger tief* ‘scarcely/less deep’, *hoch* ‘high’ and *niedrig* ‘low’. In Swedish, it is possible to describe positional relations with *djup* ‘deep’, *grund* ‘shallow’, *hög* ‘high’ and *låg* ‘low’. Lang shows that in German, the positions of two aeroplanes, in relation to each other, can be described as follows:

(452) Die Turboprop fliegt niedriger/tiefer als der Düsenjet. ‘The Turboprop flies lower/deeper than the Düsenjet.’

In Swedish, the position of the aeroplanes would not be described by *djup* ‘deep’, unless, which is important, the perspective were from above, that is, from the air (for example inside the Düsenjet). If the perspective were from above, it would be possible to describe the relation either with *lägre än* ‘lower than’ or with *djupare än* ‘deeper than’.

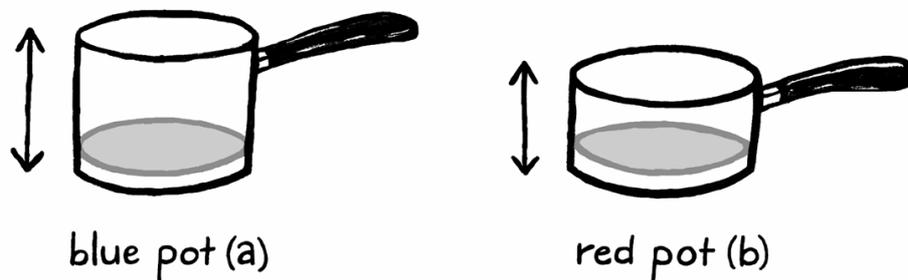


Figure 28. The blue pot (a) is higher and deeper than the red pot (b)

(453) Turbopropen flyger lägre/djupare än Düsenjeten. ‘The Turboprop flies lower/deeper than the Düsenjet.’

*Lägre än* ‘lower than’ would still be accepted, probably because of the influence of the “default” status of the ground as reference point. In this case, *låg* ‘low’ and *djup* ‘deep’ show overlapping use.

The example with the aeroplanes in Swedish shows that there are situations where *lågt–lägre–lägst* (the adverbial use) and *djupt–djupare–djupast* (the adverbial use) can overlap although the words describe dimensions measured from different points. The overlap is a result of being able to view the vertical axis as starting either from one endpoint (the ground) or from another endpoint (the air). There are double referent points: in the air AND (by default) on the ground.

An example from the corpus exhibiting similarities to the situation in which the two aeroplanes are compared is given in (454).

(454) Ett *djupt lågtryck* som snabbt rörde sig in från Atlanten. (B76–77) ‘A deep depression that rapidly moved in from the Atlantic.’

The example (454) gives the impression that an observer is located above the depression. This may very well be the case, since meteorological forecasts are based on information provided via satellites placed far up in relation to the ground. The observer is not a human being but a camera.

It is worth noting that this phenomenon of one axis and two possible directions does not occur on the horizontal axis. *Djup* ‘deep’ can describe a horizontal direction inward, but there is no other adjective for a horizontal direction outwards.

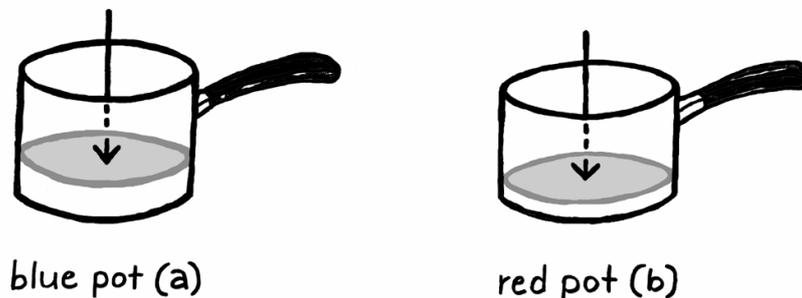


Figure 29. The blue pot (a) is higher, but not deeper, than the red pot (b)

## 10.6 The antonyms of *djup* ‘deep’

Both when consulting Swedish dictionaries and when asking native speakers, *grund* ‘shallow’ is the preferred antonym for *djup* ‘deep’. However, different uses of *djup* ‘deep’ (with corresponding different meanings) have different antonyms. The use of *djup* ‘deep’ in *djup skog* ‘deep forest’ does not have its antonym in *grund* ‘shallow’. The opposite of *djup skog* ‘deep forest’ would rather be *liten skog* ‘small forest’ or *gles skog* ‘open forest’. *Djup* ‘deep’ of *djup tallrik* ‘soup plate’ has *flat* ‘flat’ as its antonym. Other uses of *djup* ‘deep’ have other antonyms.

### 10.6.1 The antonyms of *djup* ‘deep’ in the dictionaries

The various dictionaries suggest different antonyms. According to SAOB, *djup* ‘deep’ has both *grund* ‘shallow’ and *hög* ‘high’ as its antonyms. Apart from *grund* ‘shallow’ and *flat* ‘flat’, *tunn* ‘thin’ and *ytlig* ‘superficial’ are given as antonyms for *djup* ‘deep’. According to the dictionary, *tunn* ‘thin’ is used about military troops/formations. *Ytlig* ‘superficial’ is used about inner organs of the human body.

NEO gives *grund* ‘shallow’ as the antonym for vertical *djup* ‘deep’ (my term). Ord för ord gives *grund* ‘shallow’ as one antonym and *flat* ‘flat’ as another. Nusvensk ordbok gives *flat* ‘flat’ as the antonym when *djup* ‘deep’ describes a plate. The other dictionaries do not give antonyms.

According to SAOB, the non-metaphorical sense of *grund* ‘shallow’ is used about waters and means ‘of little depth’. Furthermore, SAOB claims that *grund* ‘shallow’ can be used about objects other than water when it means ‘of small depth or thickness’ or ‘low, thin’ or ‘not penetrating deeply downwards or inwards’. NEO writes that *grund* ‘shallow’ means ‘having a

small distance between surface and bottom'. Many of the dictionaries give *djup* 'deep' as the antonym.

Nusvensk ordbok distinguishes between two spatial uses. The first involves water, as in *små grunda åar och bäckar* 'small shallow rivers and brooks'. The second use is exemplified by *jorden är ovanligt grund* 'the soil is unusually shallow', *grunda lådor* 'shallow boxes' and *grunda skår* 'shallow scores'.

Illustrerad svensk ordbok explains *grund* 'shallow' as *föga djup* 'scarcely deep', *icke djup* 'not deep'. Its examples include *en grund sjö* 'a shallow lake', *ett grunt jordlager* 'a shallow layer of soil', and *på grunt vatten* 'on shallow water'.

Finally, Bonniers svenska ordbok asserts that *grund* 'shallow' has the antonym *djup* 'deep'. The dictionary gives one example: *på grunt vatten* 'on shallow water'.

## 10.6.2 Related research in the past on SHALLOW

Most of the studies concerning DEEP do not discuss the antonym of DEEP (SHALLOW). Some studies cover both antonyms, without commenting upon possible differences between the two adjectives in the antonymous pair (Greimas 1966, Bierwisch 1967, Clark 1973, Weydt and Schlieben-Lange 1998, Linde-Usiekiewicz 2000, 2002), while other studies do not mention antonyms at all (Fillmore 1997, Lyons 1977, Spang-Hanssen 1990, Galeote et al. 1999, Lang 2001).

When analysing German *flach* 'flat', Bierwisch (1967) discusses a quality labelled plainness, and suggests that the adjectives *tief* 'deep' and *flach* 'flat' are antonyms not with respect to polarity (denoting opposite points on a scale), but with respect to the quality of plainness. The other dimensional adjectives, such as *lang* 'long', *kurz* 'short', *breit* 'broad/wide' and *schmal* 'narrow', etc., are antonyms with respect to position on a scale, where one of the antonyms indicates a positive value and the other antonym a negative one (see Chapter 2 on Previous related research).

Lafrenz (1983) studies German *flach* 'flat' and *seicht* 'shallow'.<sup>57</sup> According to his analysis, *flach* 'flat' refers to objects with an open inner space, such as *ein flacher Teller* 'a flat plate'. But *flach* 'flat' may also describe the external dimensions of objects. *Flach* 'flat' is used, for example, in *ein flacher Tisch* 'a flat table' and in *ein flaches Haus* 'a flat house'. In the former collocation, a vertical dimension of minimal extent is described whereas the second primarily expresses the limited inclination of the roof (the roof of the house is less pointed than expected). *Flach* 'flat'

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<sup>57</sup> Lafrenz's dissertation is written in German, and I have translated the adjectives into their (somewhat) English equivalents, following The Oxford Duden German dictionary. In some cases, German *flach* is probably closer to English *shallow*, as in *ein flacher Fluß* 'a flat/shallow river' but I have not considered this.

cannot combine with nouns describing inner rooms, as *Zimmer* ‘room’ and *Saal* ‘hall’. *Flach* ‘flat’ includes information that the object is *eben* ‘even’, thus *flach* ‘flat’ seems to describe the shape and proportions of an object rather than its vertical extension.

There is no lexicalised antonym of *tief* ‘deep’ to describe no great depth for an object with an enclosed inner space: *ein tiefer Schrank* – *\*ein flacher Schrank* ‘a deep cupboard – a flat cupboard’. For fluids, both *flach* ‘flat’ and *seicht* ‘shallow’ can refer to no great depth, as *ein flacher/seichter Fluß* ‘a shallow river’. *Seicht* ‘shallow’ can, in some cases, refer to parts of a fluid only, such as *eine seichte Bucht* ‘a shallow bay’ while *Die Nordsee ist ein seichtes Meer* ‘The North Sea is a shallow sea’ is not acceptable. To combine *Nordsee* ‘North Sea’ with *flach* ‘flat’ is possible, but requires encyclopaedic knowledge about the depth of the North Sea in relation to other seas. Nouns referring to objects of very great depth, such as *Ozean* ‘ocean’ are not compatible with *flach* ‘flat’.

Lang writes (1989:297–300) that German *flach* ‘shallow’ is not a dimensional adjective, but rather an evaluative adjective. The adjective indicates the proportions, which designates the Gestalt of an object. An object’s horizontal axis (for example, the length of a table) must be much greater than its vertical axis (the height of the table) for the object to be described by German *flach* ‘shallow’. Other objects that can be called *flach* in German are a ditch, a house and a scarp. If two objects are compared to each other, as in *a ist flacher als b* ‘a is more shallow than b’, then the object that is *flacher* ‘more shallow’ must be *flach* ‘shallow’ in an absolute sense as well, i.e. it must meet the Gestalt requirements. This would, as I understand it, mean that *flach* ‘shallow’ is not a relative adjective, but an absolute one. In Lang (2001), English *flat* is considered a mere shape term, belonging to the same group as *round*, *oval*, *square*, and *circle*. Spatial dimension terms should easily combine with measure phrases and form part of expressions of gradation and comparison, which is not the case for *flat* (Lang 2001:1251).

Stolz (1996) describes and discusses the Yucatec Maya *hayáam* ‘shallow’ and *hayách* ‘shallow’, both antonyms of *táam* ‘deep’. *Hayáam* ‘shallow’ describes a relatively small extension of the observer axis of an object that is three-dimensional and unbounded. Two dimensions are perpendicular to the observer axis and these two axes are particularly salient. The object has a canonical horizontal orientation. It is optically or mechanically penetrable along the observer axis. *Hayáam* ‘shallow’ is used about large layers. *Hayách* ‘shallow’, on the other hand, describes a relatively small extension of the minimal axis of three-dimensional objects, or an axis parallel with the observer’s line of vision oriented downwards. The other two dimensions (not described by *háayach* ‘shallow’) are bounded. *Hayách* ‘shallow’ describes man-made household containers. It is interesting that the adjective *hayách* ‘shallow’ can also be an antonym of *píim* ‘thick’. This is the case when *hayách* ‘shallow’ describes small,

bounded objects of a particular shape. When informants were asked to describe a rather flat bead with a hole in the middle, some chose to describe it as *hayáach* ‘shallow’ while others opted for *hay* ‘thin’, claiming that *hayáach* ‘shallow’ is restricted to man-made containers only (as stated above). (Stolz 1996:226, 134.)

As mentioned in section 10.2, it is demonstrated in Wienold and Rohmer (1997) that some languages lexicalise DEEP describing empty space and DEEP describing liquids differently. German is one such example, where *flach* ‘shallow’ describes empty space and *seicht* ‘shallow’ describes liquids. This is in accordance with Lafrenz (1983).

## 10.7 Claims concerning *grund* ‘shallow’

The dimensional adjective *grund* ‘shallow’ is considered a complex category, which can be described as a network model where one case is central, and the other case is related to the central case. *Grund* ‘shallow’:

- Refers to a vertical extension, where the adjective has a marked sense, indicating no great extension in relation to a certain norm.
- The vertical extension is considered as extending from top to bottom of the object.
- Refers to inner measurements.
- Refers to the minimal extension of the object.

The adjective preferably combines with nouns referring to objects:

- That are containers.
- With an open top.
- That consist of water.
- That have a level top.
- Whose container is in the ground.

Some referent classes are so prototypical that they are considered as *grund* ‘shallow’ themselves. *Barnbassäng* ‘children’s pool’ is perceived as *grund barnbassäng* ‘shallow children’s pool’, so the collocation may be regarded as a tautology.

### 10.7.1 Results and discussion on *grund* ‘shallow’

First, the concept of container will be discussed in relation to *grund* ‘shallow’. Then, orientation and shape of the object, described as *grund* ‘shallow’, will be focused. Finally, alternative antonyms will be treated.

### 10.7.1.1 Container

For *grund* ‘shallow’ as well as for *djup* ‘deep’, the image schema Container is central. An object described as *grund* ‘shallow’ has one open side, through which it is possible to insert something. The object may be a container, such as *grop* ‘hole’, or a container substance, such as *vatten* ‘water’. A mark or a trace resulting from the contact of contents with another object that has created a container may be described as *grund* ‘shallow’, as in *grunda märken* ‘shallow traces’. Even if an object only resembles a container in shape it may still be called *grund* ‘shallow’, as in *grund grop* ‘shallow hole’.

*Grund* ‘shallow’ can also describe one of the participants in a container/content relation. It can describe *rötter* ‘roots’ and it can describe a *botten* ‘bottom’, the latter being a positional use. These uses are infrequent. Only *grund* ‘shallow’ can be used in a positional sense. *Flat* ‘flat’ and *platt* ‘flat’ cannot be used in such a sense.

There are no examples of positional *grund* ‘shallow’ in my corpus, but the corpuses (p95), (p97), and (p98) contain a few or more precisely two or three examples. In the elicitation test, 6 out of 28 nouns referred to objects with which *grund* ‘shallow’ would be interpreted positionally (*botten* ‘bottom’, *grund* ‘shallows’ and *skär* ‘skerry’). In (455)–(457), the three corpus examples from (p95), (p97), and (p98) are given.

- (455) Den uppfattningen delas av länsstyrelsen som i sitt yttrande säger att en utbyggd hamn påtagligt kan skada yrkesfiskets intresse av *grunda bottnar*.  
(p98) ‘This point of view is shared by the county council who note in their statement that an extended harbour can significantly damage the interests of commercial fishing, namely shallow waters.’
- (456) När det rullar in sjö från väster, kokar och ryker det omkring Svartskär men som i hela Fjällbacka-skärgården växlar de *grunda böarna* med rejäla djup och man kan gå alldeles nära fyren. (p95) ‘When the tide rolls in from the west, it seethes and fumes around Svartskär but, as in the whole Fjällbacka archipelago, the shallow skerries alternate with significant depths, and you can go quite close to the lighthouse.’
- (457) Olika dykkurser arrangeras för den som önskar och på de flesta ställen finns husrev och *grunda korallträdgårdar* för nybörjare och snorklare. (p97)  
‘Various scuba diving courses are arranged for anyone who wants to participate and in most places there are club reefs and shallow coral gardens for beginners and snorkelers.’

In (455), *grund* ‘shallow’ is combined with *bottnar* ‘bottoms’. In (456) above, *grund* ‘shallow’ is combined with *böar* ‘skerries’. This, too, is a clearly positional use. The relevant extension is measured from the water surface down to the skerry, just as was the case in (455). If the adjective *grund* ‘shallow’ had been used about the water, it would have been dimen-

sional, but when used about the point/plane where the water stops and solid substance starts, the use is positional.

In (456) above, *grund* ‘shallow’ is combined with *korallträdgård* ‘coral garden’. The example could be interpreted both as a dimensional use and as a positional use. The coral garden could have small inner measurements (dimensional interpretation) or it could be located close to the water surface (positional interpretation). Since snorkelers, who stay close to the surface, are mentioned, the latter interpretation is more probable. It could of course also be interpreted as having both qualities at the same time.

For *flat* ‘flat’ and *platt* ‘flat’, the concept of containment is not a central feature. The adjectives can describe containers, such as *flat tallrik* ‘flat plate’ and *platt väska* ‘flat suitcase’, but they can also describe non-containers, such as *flat sten* ‘flat stone’ or *platt kaka* ‘flat biscuit/cake’. *Djup* ‘deep’ and *flat* ‘flat’ can only be antonyms as long as *flat* ‘flat’ describes a container. The opposite of *flat sten* ‘flat stone’ is not *djup sten* ‘deep stone’ but perhaps *spetsig sten* ‘pointed stone’ or *ojämn sten* ‘uneven stone’. In the same way, *platt* ‘flat’ can only be antonymous with *djup* ‘deep’ regarding containers. The opposite of *platt kaka* ‘flat biscuit/cake’ is not *djup kaka* ‘deep biscuit/cake’ but probably *tjock kaka* ‘thick biscuit’ or *hög kaka* ‘high cake’.

An interesting difference between *flat* ‘flat’ and *platt* ‘flat’ is that when *flat* ‘flat’ is used to describe a container it can only describe an open one. If the container is closed by a lid or by some other mechanism, *flat* ‘flat’ cannot describe it. *Platt* ‘flat’ can describe containers no matter whether they are open or closed. It is possible to describe an *attachéväska* ‘briefcase’ as *platt* ‘flat’, but not as *flat* ‘flat’. Thus, it appears that the adjective *flat* ‘flat’ is particularly sensitive to the quality of the object having an open side. This, however, is only true for containers. *Flat* ‘flat’ can describe massive non-containers, which obviously have no open or closed side. Another example of the same type is *flaska* ‘bottle’. A bottle may be described as *platt* ‘flat’ but not *flat* ‘flat’. As mentioned in 10.4.2, a bottle cannot be described as *djup* ‘deep’ either. Both *flat* ‘flat’ and *platt* ‘flat’ describe the overall shape of the object, and not one single extension. Therefore, neither *flat* ‘flat’ nor *platt* ‘flat’ is a true dimensional adjective, see 10.7.1.3. *Djup* ‘deep’ can definitely be used in a measure phrase, such as *kärnan var 60 cm djup* ‘the barrow was 2 feet deep’. Then no judgement is expressed about whether the extension is large or small. *Grund* ‘shallow’ could scarcely be used: *kärnan var 60 cm grund* ‘the barrow was 2 feet shallow’. Neither *flat* ‘flat’ nor *platt* ‘flat’ can be used in measure phrases, \**kärnan var 60 cm flat/platt* ‘the barrow was 2 feet flat’.

### 10.7.1.2 Orientation

The open side of an object described as *grund* ‘shallow’ can be located at the top, as in *grund dike* ‘shallow ditch’. The opposite side of the open side

will then be the bottom. The extension measured by *grund* ‘shallow’ is the vertical dimension between the top and the bottom.

The open side can also be separated from the top. This is the case in the collocation *grund scen* ‘shallow stage’. The open side of the stage coincides with the front of the stage. *Grund* ‘shallow’ measures a horizontal extension.

The extension measured by *grund* ‘shallow’ can also be unspecified as to orientation, such as *grunda fördjupningar* ‘shallow depressions’.

The open side and the front need not coincide for an object for which *grund* ‘shallow’ denotes the horizontal extension (see discussion on *djup* ‘deep’ and the same matter in section 10.4.3). However, *grund* ‘shallow’ is a relatively infrequent dimensional adjective compared to *djup* ‘deep’ and the other dimensional adjective and therefore, many suggested uses of *grund* ‘shallow’, such as *en grund bardisk* ‘a shallow bar counter’ sound forced, although not incorrect. This is the reason why I have not gone into more detail about all the possible uses of *grund* ‘shallow’ to describe different types of objects such as top-fed washing machines, etc. According to native speaker intuition, *grund* ‘shallow’ is primarily associated with a vertical extension, especially regarding water. The great majority of the uses in the corpus of *grund* ‘shallow’ involves a vertical extension, see (458). In the elicitation test, all the nouns referred to objects for which *grund* ‘shallow’ would describe a vertical extension. In the corpus, there are a few uses where *grund* ‘shallow’ describes an extension which is unspecified as to orientation:

(458) *Vattnet var grunt och grumligt med ytan översållad av små gula slånblad* (B76–77) ‘The water was shallow and muddy and the surface covered in small yellow sloe leaves.’

(459) Kommer du inte ihåg, att du sa åt mig att jag skulle tänka på att inte ställa metallstolarna för nära målningen? – De märkena som du gjorde är de här. Hon pekade på ett par *grunda hål* i målningen nedanför räcket. (B76–77) ‘Don’t you remember telling me that I shouldn’t put the metal chairs too close to the painting? – Here are the marks you made. She pointed to a couple of shallow dents in the painting below the railing.’

In order to find uses involving a horizontal extension, other corpuses need to be examined since B76–77 and B80–81 contain no such uses. In (460), a use where *grund* ‘shallow’ describes a horizontal extension has been taken from (p98).

(460) Ett ideal i svensk bostadsarkitektur är det smala huset med *grunda* ljusa rum. (p98) ‘An ideal in Swedish domestic architecture is the narrow house with shallow well-lit rooms.’

It can be assumed that *grund* ‘shallow’ expresses the same direction as *djup* ‘deep’ does. For a vertical dimension, the direction would be from top to bottom. For a horizontal dimension, the direction would be from front to

inside of the back. For a dimension, which is unspecified as to orientation, the direction would be from the open side to the opposite side. In discussing *djup* ‘deep’, see 10.4.3 above, one way of testing was to see if the adverb *djupt* ‘deeply’ combined with the adverbs *in/ut* ‘into/out of’ and *ner/upp* ‘down/up’ was performed. As was accounted for, *djupt* ‘deep’ combined with *in* ‘into’ and *ner* ‘down’ only. The same test cannot be performed for *grund* ‘shallow’ since neither of the combinations sounds good: *?grunt ner* ‘shallow down’, *?grunt in* ‘shallow in’, *?grunt upp* ‘shallow up’, *?grunt ut* ‘shallow out’. There are no occurrences of either of the combinations in (parole), which contains 25 million words.

While *grund* ‘shallow’ (supposedly) involves perspective from the open side toward the opposite side, this applies to neither *flat* ‘flat’ nor *platt* ‘flat’. *Flat* ‘flat/shallow’ and especially *platt* ‘flat’ can be used beyond the scope of *djup* ‘deep’, in order to describe the external shape of non-containers.

The semantics of *djup* ‘deep’ includes a quality of inaccessibility. Since *grund* ‘shallow’ describes a dimension on the same scale as *djup* ‘deep’, the quality of inaccessibility is relevant. An object described as *grund* ‘shallow’ is more accessible than could normally be expected. In (457) above, a coral reef was described as *grunt* ‘shallow’, making it suitable for beginners of scuba diving and for snorkelers. In (461), a class-room is described as *grunt* ‘shallow’, bringing the lecturer closer to her audience.

- (461) Arkitekten är nöjd med den konstnärliga utsmyckningen av Lennart Landqvist, vars namn statens konstråd bistått med. Och visar de *grunda lektionssalarna* med nära för alla till föreläsaren. (p95) ‘The architect is satisfied with the artistic decoration by Lennart Landqvist, whose name the National Art Council has assisted in finding. And demonstrates the shallow lecture rooms where everyone is close to the lecturer.’

In 10.4.3, it was noted that the expression *jag bottnar inte* ‘I cannot reach the bottom’ in a certain context, namely that of swimming, is more or less equivalent to the expression *här är det djupt* ‘it is deep here’. It was argued that this observation indicated a close relationship between the water and the human body in the roles of container/content regarding *djup* ‘deep’. Likewise, the expression *jag bottnar* ‘I can reach the bottom’ and the expression *här är det grunt* ‘it is shallow here’, are more or less equivalent in a swimming context. When swimming, the area where you can reach the bottom is often referred to as *på det grunda* ‘at the shallow (end)’ while the area where you cannot reach the bottom is often referred to as *på det djupa* ‘at the deep (end)’.

In some contexts, the quality of inaccessibility can be linked to a quality of danger (see discussion in 10.4.4), and correspondingly, accessibility can be associated with its opposite, as in (462).

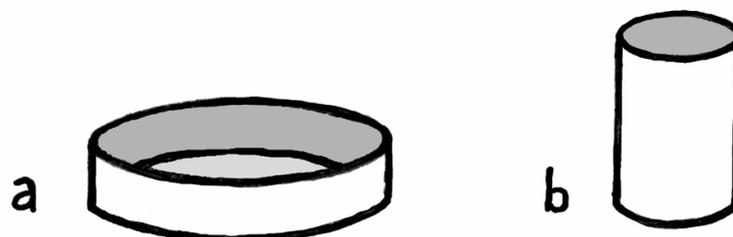


Figure 30. Two cylinders, where a can be described as *grund* ‘shallow’ while b cannot

(462) Stranden var flatare här, och inte så hotfull. *Vattnet* var *grundare*. Det var ebb. (B80–81) ‘The beach was flatter here, and less threatening. The water was shallower. It was low tide.’

### 10.7.1.3 Shape

As was the case for *djup* ‘deep’, the issue of shape is dominated by the issue of container/content for *grund* ‘shallow’, too. It was claimed in section 10.7.1.1 that *grund* ‘shallow’ can only describe containers, while *flat* ‘flat’ and *platt* ‘flat’ can describe containers and non-containers. For *flat* ‘flat’ and *platt* ‘flat’, the issue of shape is important. These adjectives primarily describe a shape in which one dimension should be significantly smaller than the other two, such as a pancake (note the expression *platt som en pannkaka* ‘flat as a pancake’).

Intuitively, it seems as if *grund* ‘shallow’ is used rather to describe shapes where the bottom or inside of the back has a greater diameter or breadth than the extension from the top or front to the bottom or the inside of the back, see Figure 30. The corpus reveals no examples that contradict this statement, but it must be borne in mind that the corpus contains no pictures so that I interpret the nouns as representing conventionalised examples of the objects. In section 10.2.1, it was noted that Lang (1989) regards German *flach* ‘shallow’ as an evaluative adjective rather than a dimensional one because it denotes proportions and designates the Gestalt of an object. What Lang (1989) points out for German *flach* ‘shallow’ therefore seems to apply to *grund* ‘shallow’ too. However, I would still prefer to call *grund* ‘shallow’ a dimensional adjective, since my studies on other dimensional adjectives (*tjock* ‘thick’, *smal* ‘narrow/thin’ and *vid* ‘broad’)

indicate that the meaning of a dimensional adjective may include information about Gestalt/proportions.

The great majority (60 out of 78 instances) of the objects described as *grund* ‘shallow’ in the corpus consist of water, see (463) for an example. In the elicitation test, 18 out of 28 nouns referred to water, as in *sjö* ‘lake’, *bassäng* ‘pool’ and *vatten* ‘water’. The second greatest group comprises negative parts. There were no such nouns in the elicitation test. In the corpus, this group constitutes about one quarter of the instances. A use of this kind can be found in (464).

(463) Från början hade det där varit en *grund sjö*, som så småningom växt igen. (B76–77) ‘At the beginning there had been a shallow lake, which had gradually silted up.’

(464) Under några stenblock fanns en *grund grop* och där satte de upp tältet som vindskydd. (B76–77) ‘Under some rocks was a shallow depression where they put up the tent as a windshield.’

Further, there are three uses where *grund* ‘shallow’ is used positionally, as mentioned in section 10.7.1.1.

*Grund* ‘shallow’ can describe an object, which has been reduced to two dimensions. One such use can be found in the corpus (p95):

(465) Så visar hon nedgången till de tunnlar varigenom haremet kunde fly till Indien om det blev krig och föreslår sedan att vi lämnar fortet via den kungliga elefantrappan med sina breda, *grunda trappsteg*. (p95) ‘Then she shows the entrance to the catacombs through which the harem could flee to India, in case of war, and then suggests us leaving the fort by the royal elephant stair-case with its wide, shallow steps.’

In the case of a step, as in (465), *grund* ‘shallow’ seems to be used to describe the space where the foot should be placed. Since a stair-case consists of several horizontal areas, which end in a vertical “wall” (leading up to the next step), a kind of inner room is created. The “wall” can be regarded as the inside of the back, thus giving the inner room an open front (no top and no left side or right side exist). Analysed like this, *grund* ‘shallow’ describes an inner dimension of a container. This interpretation is similar to the way in which *en djup hylla* ‘a deep shelf’ was regarded, see 10.4.6.<sup>58</sup>

There are three uses of *grund* ‘shallow’ in the corpus that are interesting in terms of two- or three-dimensionality. In each case, *grund* ‘shallow’ describes water, not however the total amount, but its surface:

(466) En vindpust medförde ett sekundsnabbt knattrande av droppar mot de *grunda vattenytorna*. (B76–77) ‘A breath of wind brought an immediate rattle of drops on the surface of the shallow waters.’

<sup>58</sup> See Lang (2001:1266) for an interesting discussion on how stairs are described in a situation when a person is climbing or descending them.

- (467) Att slå läger vid Rudolfsjön var att hamna i gammaltestamentligt land. Detta var ett öga-för-öga-land, intensivt primitivt. Vi turades om att hålla vakt under natten och när Dima väckte mig strax efter midnatt var månen uppe och sjön låg så stilla att det var svårt att se var himmel och sjö möttes, eftersom stjärnornas spegelbilder var lika klara som de själva. De dödas kulle låg nästan vit i månskenet och den *grunda ytan* nedanför den var prickig av bleka fågelspöken, allesammans sovande. (B76–77) ‘Camping at Lake Rudolf was like being transported back to the Old Testament. This was eye-for-an-eye country, intensely primitive. We took turns at being on guard during the night and when Dima woke me up, just after midnight, the moon was up and the lake was so still that it was difficult to make out where the sky and the lake met, since the reflections of the stars were as bright as the stars themselves. The hill of the dead lay nearly white in the moonlight and the shallow surface below it was dotted by pale ghostly birds, all asleep.’
- (468) Hit till kläppen vid Flarkmyran, även kallad Häst-ätar-flarken. För i år måste hon få det berättat för honom. En dimpelare stod rakt upp ur det lömska stället; knipor och skrakar simmade på det *grunda vattuflaget*. (B80–81) ‘To the tongue at Flark bog, also known as Horse-eater Flark. Because this year she has to tell him. A pillar of fog stood right up from the treacherous place; goldeneyes and mergansers were on the water at the shallow floe.’

The nouns of (466)–(468) are nouns that conventionally denote two-dimensional objects. *Yta* ‘surface’ in (466) and (467) means an area. *Flak* ‘floe’ is usually used about *isflak* ‘ice floes’ but here it is used about water. The animals are swimming, not *i* ‘in’ but *på* ‘on’ the floe. I have interpreted the examples in the following way: If the water is very shallow, the bottom will merely be covered by a thin “layer” of water. Comprehended in this way, the surface itself can constitute the total water amount. Since the examples have been taken from fiction, the description does not have to be exact but can be intended to convey an impression. The objects are something in between two and three dimensional. A fourth example may support the analysis. The example involves a work of art, an installation, consisting of a bed filled with water:

- (469) Sängen är vattenfylld, som en bassäng, men har inte vätt ned något i sin närhet. Kudden och filten under den blanka vattenspegeln är båda täckta av ett lager vattentät polyester. Vattnet ger djup åt en yta som annars skulle vara alldeles platt. (parole) ‘The bed is filled with water, like a swimming pool, but completely sealed. The pillow and the blanket under the shiny mirror of water are both covered by a layer of waterproof polyester. The water gives depth to a surface which otherwise would be completely flat.’

The text describes a surface (the top of the bed) which is normally flat but thanks to the water layer on top of it has now acquired depth. The text illustrates the delicate interplay of surface and the depth.

There are no loose solid substances, as was the case for *djup* ‘deep’, see 10.4.6.1, among the occurrences of *grund* ‘shallow’.

#### 10.7.1.4 Other antonyms of *djup* ‘deep’

There are some uses of *djup* ‘deep’ where *grund* ‘shallow’, *flat* ‘flat’ or *platt* ‘flat’ cannot be used as the antonym.

I have negated various uses of *djup* ‘deep’ in the corpus and investigated which adjective my intuition tells me would be suitable. I have also searched the corpus in order to find out if other adjectives, apart from *djup*–*grund* ‘deep – shallow’ are used to describe the designated dimension of the objects concerned. Below is an example of this process.

- (470) De såg det nya reningsverket, där en uniformsklädd vaktmästare skymtade på spången mellan de *djupa bassängerna*. (B76–77) ‘They saw the new sewage treatment works, where a uniformed caretaker could be glimpsed on the footbridge between the deep pools.’

Now, the sentence (470) is negated in that sense that what was deep will no longer be deep: *de grunda bassängerna* ‘the shallow pools’. The use of *grund* ‘shallow’ is appropriate and acceptable. Below the process is repeated with *djup sandjord* ‘deep sand soil’.

In the corpus, there is a use of *djup* ‘deep’ describing *sandjord* ‘sand soil’:

- (471) Det var också han som valde ut landningsbanans *djupa sandjord* som begravningsplats efter “uppvisningen” i Vallegrande. (p97) ‘It was also he that chose the deep sandy soil of the landing strip as the burial ground after the “exhibition” in Vallegrande.’

The context is about a runway in Vallegrande, Bolivia, where rumours say that the body of Che Guevara was buried. Here, too, *djup* ‘deep’ has been substituted for *grund* ‘shallow’: *?landningsbanans grunda sandjord* ‘the shallow sandy soil of the landing strip’. The new collocation is probably not acceptable.<sup>59</sup> The adjective *tunn* ‘thin’ is used with a better outcome: *landningsbanans tunna sandjord* ‘the thin sandy soil of the landing strip’. A search in the corpus does not give any occurrences of *tunn sandjord* ‘thin sand’. There are other combinations of adjective + noun, where the noun is combined with *djup* ‘deep’ in one or more examples, and with *tunn* ‘thin’ in one or more examples. This is the case for *ett lager av jord* ‘a coat of soil’. In the corpus, there is a sentence where *ett lager av jord* ‘a layer of soil’ is described as *djupt* ‘deep’, see (472). *Ett lager av jord* ‘a layer of soil’ cannot be described as *grunt* ‘shallow’, *?ett grunt lager av jord* ‘a shallow layer of soil’, but it can be described as *tunt* ‘thin’, see (473).

<sup>59</sup> Note, however, that Nusvensk ordbok gives the example *Därute på alvaret är jorden ovanligt grund* [...] ‘Out there on the bare limestone ground the soil is unusually shallow [...]’ and *På grund jord, t.ex. på myllklädda hållar* ‘On shallow earth, for instance soil-covered rock’. Illustrerad svensk ordbok gives the example *ett grunt jordlager* ‘a shallow layer of earth’. My linguistic intuition suggests that these uses sound slightly odd.

- (472) Husen låg vanligen försänkta i marken och hade ett *djupt lager* av jord på taket för att skydda mot solhettan. (B76–77) ‘The houses were usually sunk in the ground and had a thick layer of soil on the roof to protect against the sun’s heat.’
- (473) Och det är bara ett litet *tunt lager* av jord som vi har odlat på och då spolas det rent, va... (B76–77) ‘And it’s only a small, thin layer of soil that we’ve used for growing, and then it’ll be rinsed clean, OK...’

Note that when describing soil as *tunt* ‘thin’, the meaning of verticality disappears. The container quality expressed by *djup* ‘deep’ is also missing. Furthermore, while *djup* ‘deep’ describes an internal measurement, *tunn* ‘thin’ describes an external one. Finally, the component of inaccessibility/accessibility is no longer included in the meaning.

There are several examples in the corpus where a noun or a noun phrase is combined with *djup* ‘deep’ and with *tunn* ‘thin’, in separate sentences and separate contexts. Sometimes, the noun or noun phrase is combined with *tjock* ‘thick’, too, and in some cases, with other adjectives such as *hög* ‘high’ and *låg* ‘low’ and even with *lång* ‘long’ and *kort* ‘short’. Note that each adjective describes exactly the same dimension (the vertical one), although verticality is not included in the meaning of all of the adjectives (like *tjock* ‘thick’).

The following combinations of noun and adjective occur in the corpus: *djup mylla* ‘deep topsoil’, *tjocka myllan* ‘the thick topsoil’, (*tunn mylla* ‘thin topsoil’ does not occur but is accepted by native speakers) *djupa mossan* ‘the deep moss’, *tunna mossa* ‘thin moss’, *djupa gräset* ‘the long grass’, *vintertunt gräs* ‘thin winter grass’, *tjocka gräset* ‘the thick grass’, *lågt gräs* ‘low grass’, *höga gräset* ‘the tall grass’, *långa gula gräset* ‘the tall yellow grass’, *korta gräset* ‘the short grass’, *djup matta* ‘deep carpet’, *tjock matta* ‘thick carpet’, (*tunn matta* ‘thin carpet’ does not occur but is accepted by native speakers), *djupt snötäcke* ‘deep blanket of snow’, *snötäcket var tunt* ‘the thin covering of snow’, *tjockt snötäcke* ‘thick blanket of snow’, *djupare driva* ‘deeper drift’, *tunn liten driva* ‘small, narrow snowdrift’, *djupa snölagret* ‘the deep layer of snow’, *tunna snölagret* ‘the thin layer of snow’, *tjockt lager av snö* ‘thick layer of snow’, *vågor som ibland var djupa* ‘waves that were sometimes big’, *tunna vågor* ‘small waves’, *höga vågor* ‘high waves’, *djupt lödder* ‘deep foam’, *tunn fradga* ‘thin froth’, *tunna drivor av skum* ‘thin drifts of foam’ (*tjockt skum* ‘thick foam’ does not occur but is accepted by native speakers). Some of the uses of *djup* ‘deep’ and *tunn* ‘thin’ deserve comment, and this will be provided below.

Some consideration needs to be devoted to the use of adjectives to describe *vågor* ‘waves’. These can be described as *djupa* ‘deep’, but hardly as *grunda* ‘shallow’. This might be surprising since water is often described as *grunt* ‘shallow’:

- (474) Hon och Anthred stod på nytt på den steniga stranden med den platta gröna lyktan mellan sig och med sina stavar sänkta i det *grunda vattnet*. (B76–77)

‘She and Anthred stood once again on the stony beach, with the low green lantern between them and their sticks sunk into the shallow water.’

The use of *grund* ‘shallow’ to describe waves seems strange to a native speaker, maybe because there is an idea that waves do not occur in shallow water. This is not an argument, though, since waves can be produced in any kind of water, shallow or deep. There is one occurrence in the corpus where there are waves in the water of a bathtub. They are not described as *grunda* ‘shallow’, though, but as *små* ‘small’, see (475).

(475) Först när hon ligger nersänkt i det heta vattnet kommer frossan. Hon låter den darra ut. Det är ingen idé att försöka behärska sig. Skakningarna gör *små vågor* på badvattnet. (B80–81) ‘Not until she lies submerged in the hot water do the shivers start. She lets them ebb away. It’s no use trying to control yourself. Her trembling creates small waves in the bathwater.’

The waves (or rather, the trough between two waves) are probably not described as *grunda* ‘shallow’ due to their Gestalt. The vertical extension for a trough is larger than its horizontal extension, blocking the usage of *grund* ‘shallow’. Waves may also be described as *kort* ‘short’, see Chapter 11, page 350.

The noun *mylla* ‘topsoil’ is described as *djup* ‘deep’ in the corpus. There are no occurrences of *tunn mylla* ‘thin topsoil’. Native speakers express uncertainty whether this use is acceptable (“we aren’t farmers” was the comment of one informant). *Mylla* ‘topsoil’ has, for some speakers, the meaning of fertile soil, and if the layer of topsoil is too thin, then the soil is not fertile and should not be called *mylla* ‘topsoil’. However, there are three uses of *mylla* ‘topsoil’ in the corpus where the soil is not fertile:

(476) Trolöst obördiga Småland! Kärvt förbannade hälleberg! Revigt bevuxet av rispiskande lingontuvor, kulformad, knackande *hård mylla*. (B76–77)  
‘Unfaithful barren Småland! Damned harsh rock! Overgrown with tendrils of scratchy of lingonberry tufts, soil as rock hard as ball bearings.’

The example describes how *obördigt* ‘barren’ the land is. Its topsoil is *hård* ‘hard’.

The patterns for *mylla* ‘topsoil’ shows similarities with the patterns for *sandjord* ‘sandy soil’, *jord* ‘earth’, *mossa* ‘moss’, *matta* ‘mat’, *snötäcke* ‘blanket of snow’, *driva* ‘drift’, *snölager/lager av snö* ‘layer of snow’, and *lödder* ‘lather/foam’ in that sense that *tunn* ‘thin’, but not *grund* ‘shallow’, can indicate that the extension of the substance is small. These substances are loose solid substances according to Herskovits’ (1986) analysis. *Mossa* ‘moss’ can be related to loose solid substance although it is formed rather of small, disjunct parts that cover an area (see Chapter 8 on *tjock* ‘thick’). This quality is also shared by *gräs* ‘grass’. Loose solid substances (soil, topsoil, snow and foam) are treated as a layer. Moss is treated either as a layer or as thin cuboids. Using *tunn* ‘thin’ rather than *djup* ‘deep’ to describe objects fails to include many of the qualities expressed by *djup* ‘deep’. These

involve verticality, the internal dimension, and the container function. But something else is gained. *Tjock–tunn* ‘thick–thin’ adds the component of resistance, and a quality of “two-dimensionality” which stresses the area and diminishes the prominence of the vertical dimension, see Chapter 8 on *tjock* ‘thick’ and Chapter 9 on *tunn* ‘thin’.

The use of dimensional adjectives to describe *gräs* ‘grass’ is interesting. Not only can grass be described as *tunt–tjockt* ‘thin–thick’, thus adapting to the pattern described above, but it can also be described as *lågt* ‘low’, *högt* ‘high’, *kort* ‘short’, *långt* ‘long’ and *djupt* ‘deep’. This means that no less than seven adjectives, from four pairs, can describe the vertical dimension. There is one use of *djup* ‘deep’ describing grass in the corpus, (408), repeated here as in (477).

- (477) Till slut hade han kommit på henne där hon låg på rygg, sade han, nästan täckt av det *djupa gräset* vid Kaknästornet. (B76–77) ‘At last he had found her, lying on her back, he said, almost covered by the long grass at Kaknäs Tower.’

The use of *grund* ‘shallow’ when describing grass is hardly acceptable. Instead, if the grass does not have a major extension in the vertical direction, *låg* ‘low’ is used, see (478). Note that when using *låg* ‘low’, the perspective has changed. The direction is not downward any longer, but first upward, then downward. Furthermore, the extension is not internal but external.

- (478) På marken torrt, *lågt gräs* med små lila blommor i. (B80–81) ‘On the ground, dry, low grass with small purple-coloured flowers.’

It is also possible to describe the grass as *högt* ‘high’. The collocation *högt gräs* ‘high grass’ shares some components with the collocation *djupt gräs* ‘deep grass’, but some components differ. Most obvious is the change of direction from downwards in the case of *djupt gräs* ‘deep grass’ to upwards in the case of *högt gräs* ‘high grass’. Furthermore, the component of inaccessibility is lost when *högt* ‘high’ is used. In (479), an example of *högt gräs* ‘high grass’ is shown.

- (479) Han hade passerat Bush Hill Arms med sin Tudorfasad vanställd av getingbon och en skylt med texten “Till Salu” (ytterligare någon som skulle “ge sig i väg”), och så var det ingenting alls... och allting: den enda jämna vägen, träden, bambun, dambos plötsligt öppna landskap, där det *höga gräset* dolde vatten, och där såg han till sist, på nytt den ensamma, långstjärtade törnskatan som man alltid brukade se på sådana ställen, kretsande över gräset med sin bläcksvarta stjärt som penselstreck i ett kinesiskt ideogram. (B76–77) ‘He had passed the Bush Hill Arms with its Tudor front, defaced by wasps’ nests and a sign saying “For Sale” (another one who was “going away”), and then, there was nothing at all... and everything: the solitary level road, the trees, the bamboo, the sudden open landscape of dambos, where the tall grass concealed water, and there, at last, he saw once more the lonely, long-tailed red-backed shrike which you always used to see in such

places, hovering over the grass with its ink-black tail, like the brush stroke of a Chinese ideogram.’

It is also possible to describe the grass as *långt* ‘long’, see (480), and as *kort* ‘short’, see (481).

(480) Men han sjönk ner på knä, han kurade ihop sig i det *långa* gula *gräset*, han drog det grova gräset upp omkring sig och böjde huvudet. (B80–81) ‘But he sank to his knees, he crouched in the long yellow grass, he pulled the thick grass up around him and lowered his head.’

(481) Det *korta* *gräset* vid väggkanten är hans enda tillflyktsort. (B80–81) ‘The short grass on the roadside is his only refuge.’

When *gräs* ‘grass’ is described as *långt* ‘long’ or *kort* ‘short’, the vertical extension, whether downwards as when described by *djupt* ‘deep’ or upwards as when described by *högt–lågt* ‘high–low’, is lost.

*Gräs* ‘grass’ can also be described as *tjockt* ‘thick’ or *tunt* ‘thin’. In (482), *tunn* ‘thin’ is part of the compound *vintertunn* ‘winter-thin’, indicating that the grass is thin according to the season.

(482) Det var en frostnupen morgon på en ranch i nordvästra Montana och det bleka sidoljuset avslöjade långsamt de skogklädda höjderna på andra sidan Thompsonfloden. Vi hade tittat till de nyfödda kalvarna – trädens korpar tvekar inte att hugga in på skyddslösa tungor och ögon – och red långsamt genom ännu *vintertunt* *gräs* med djurens rörelser och andhämtning som enda ackompanjemang. (p96) ‘It was a frosty morning on a ranch in northwest Montana and the pale sidelight slowly revealed the forested heights on the other side of the Thompson River. We had seen to the new-born calves – the ravens in the trees don’t hesitate to stab defenceless tongues and eyes – and were riding slowly through the still thin winter grass, accompanied only by the movements and breathing of the animals.’

There is also an example of *tjock* ‘thick’ describing grass:

(483) Smaragdgröna duvor satt uppflugna i det täta lövverket och blanka gröna giftormar gled som rinnande vatten genom det *tjocka* *gräset*. (B80–81) ‘Emerald-green pigeons sat perched in the thick foliage, and glossy green poisonous snakes slid like running water through the thick grass.’

When *gräs* ‘grass’ is described as *tjockt–tunt* ‘thick–thin’, the resistance of the substance is stressed. There is nothing expressing vertical dimension (as when describing grass as *djupt* ‘deep’ or as *högt–lågt* ‘high/tall–low’) or any direction (as when describing grass as *djupt* ‘deep’ or as *högt–lågt* ‘high/tall–low’), nor a container function (as when the grass is described as *djupt* ‘deep’). The vertical dimension is incorporated in the overall quality of resistance. *Tjock–tunn* ‘thick–thin’ when used about grass describes a quality that does not enhance any of the dimensions, vertical or horizontal, see Chapter 8 on *tjock* ‘thick’ and Chapter 9 on *tunn* ‘thin’.

When *tjockt–tunt* ‘thick–thin’ is used about grass, the adjective can signify that the total amount of grass forms a dense or open mass, as in examples (482) and (483) above, but it can also mean that each blade of grass is thick or thin. In examples (482) and (483) above, this interpretation cannot be ruled out. In order to ensure that the description refers to each blade, *grov* ‘thick’ can be used as in (484). *Grov* can only be understood as describing each blade of grass.

- (484) Plötsligt vek stigen av till höger och han kände en svag doft av dy innan han fick syn på den lilla dammen. Vattnet var grunt och grumligt med ytan översållad av små gula slånblad och kanten fransad av *grovt gräs*. (B76–77)  
 ‘Suddenly the path turned right and he noticed a faint smell of mud before catching a glimpse of the small pond. The water was shallow and muddy and the surface covered in small yellow sloe leaves and the edge fringed by thick grass.’

The analysis indicates that there is no way to express a downwards direction for substances such as *mylla* ‘topsoil’ and *sand* ‘sand’ when this extensions is at the same time small. Other dimensional adjectives may describe these substances as having small extension, with the result that some of the *djup–grund* ‘deep–shallow’ qualities are lost, such as verticality and direction.

*Ytlig* ‘superficial’ is another adjective, which is opposed to *djup* ‘deep’, especially in its positional sense. *Ytliga lager* ‘superficial layers/strata’ is acceptable, although I have found no such occurrences in the corpus. SAOB suggests *ytlig* ‘superficial’ as a possible antonym for *djup* ‘deep’, see section 10.6.1.

The use of *djup* ‘deep’ combined with *skog* ‘forest’, *vildmark* ‘wilderness etc. has no evident antonym. *Grund* ‘shallow’ would sound very odd, as would *flat* ‘flat’ and *platt* ‘flat’. A description of a forest with qualities that were the opposite of *en djup skog* ‘a deep forest’ would possibly include adjectives such as *liten* ‘small’, *öppen* ‘open’, *gles* ‘sparse’, *tunn* ‘thin’, *nära* ‘nearby’.

*Djup* ‘deep’ quite frequently describes body parts such as *veck* ‘wrinkle’, *fåra* ‘line’, *rynka* ‘wrinkle’ and *skråma* ‘scratch’. I have not included these uses in the description. However, it can only be briefly noted here that in these cases, the antonym of *djup* ‘deep’ is *tunn/fin* ‘thin/fine’. *Djup* ‘deep’ can also describe *sår* ‘wound’, *blodkärl* ‘blood vessel’, *skåra* ‘cut’, and *skråma* ‘scratch, superficial wound’, and in these cases, the preferred antonym is *ytlig* ‘superficial’. *Ytlig* ‘superficial’ can also be used for uses, such as *djupt lager–ytligt lager* ‘deep layer–superficial layer’.

## 10.8 Summary of *djup* ‘deep’ and *grund* ‘shallow’

The dimensional adjective *djup* ‘deep’ is considered a complex category, which can be described as a network model. There are two cases in the

model. The central case is a use in which *djup* ‘deep’ describes an object with a canonical vertical orientation. In addition there is a case in which *djup* ‘deep’ describes an object with a canonical horizontal orientation. The relationship between these uses includes an abstraction away from the factor of orientation in the vertical dimension. Uses of *djup* ‘deep’ to describe an object with no specified orientation are peripheral in either of these two cases (the two cases may overlap). Positional uses of *djup* ‘deep’ belong to the central case.

*Djup* ‘deep’ primarily describes a container. It is suggested that the direction of *djup* ‘deep’ is derived from the direction in which content is inserted into the container. In other words, the direction goes from the open side of the container to the opposite side.

Each case has a corresponding simple category. Within the simple category, some uses are prototypical and some are peripheral. For the central case, the prototypical use involves *djup* ‘deep’ combining with a noun that refers to a Container Substance (water). One side of the container substance, namely the top, is more open and accessible than the other sides. The extension from the top to the bottom is difficult to assess. The extension may not be visible, as may often be the case for water. The bottom is less accessible than the top, and the bottom is difficult to reach. The top is even, and the container substance is in the ground.

Other uses of *djup* ‘deep’ share the function of Container even if they do not involve water. Other uses again are similar in shape to container substances or to containers.

Not only the basic notion or image schema Container (Substance), but the relation between content and container is important for the semantics of *djup* ‘deep’. Peripheral uses in the simple category, corresponding to the central case in the network model, involve *djup* ‘deep’ describing not a container, but the contents of a container, such as *djupa rötter* ‘deep roots’, where *rötter* ‘roots’ correspond to the content and the container is the ground. Here, a parallel can be drawn to positional *djup* ‘deep’. Alternatively, it is suggested that in relation to *rötter* ‘roots’, the adjective *djup* ‘deep’ rather describes the space surrounding the roots.

The relation between the prototypical use and a peripheral use, where *djup* ‘deep’ has a positional sense includes similarities in that both uses describe a straight extension that is perpendicular to a reference plane. Furthermore, the space in which the object described by positional *djup* ‘deep’ is encompassed can be viewed as a container with the object as its content. The reference plane, from which the extension is measured to the object described by positional *djup* ‘deep’, then corresponds to the open side (top) of the container, described by dimensional *djup* ‘deep’. Moreover, the extension from the reference plane to the located object described by positional *djup* ‘deep’ corresponds to the dimension from the open side (top) to the bottom of the container, described by dimensional *djup* ‘deep’.

The simple category corresponding to the case in which *djup* ‘deep’ describes an object with canonical horizontal orientation has no clear prototype in the same sense as the central case. Furniture, such as couches and armchairs, are often described as *djup* ‘deep’, as are objects formed by negative parts, such as caves and niches. A prototypical use probably involves *djup* ‘deep’ describing a container whose open front is more accessible than the inside of its back. The front is even. If the front and the open side for some reason are separated, as is the case of a bar, where the open side faces the bartender and the front faces the customer, it is shown that the open side takes precedence over the front so that *djup* ‘deep’ describes the dimension extending from the open side.

Here, uses such as *djup skog* ‘deep forest’ and *djup ödemark* ‘deep wilderness’ are intriguing. The adjective expresses not only a great dimension along the horizontal axis, but also (maybe in the first place) inaccessibility. The innermost part of a forest is difficult to reach.

Like *djup* ‘deep’, *grund* ‘shallow’ is regarded as polysemous. It corresponds to a complex category, which can be described as a network model. The central case involves a use in which the dimension described as *grund* ‘shallow’ is vertical. The other case concerns a use in which the dimension described as *grund* ‘shallow’ is horizontal.

At a simple category level, the category *grund* ‘shallow’ is poorer than its category *djup* ‘deep’. Shape constraints, as well as a stricter association to the container function, exclude uses that would be expected of a full antonym of *djup* ‘deep’. Thus, the adjectives *djup* ‘deep’ and *grund* ‘shallow’ show weak antonymy. Many nouns, which can be described as *djup* ‘deep’, cannot be described by *grund* ‘shallow’, but take instead *flat* ‘flat’, *platt* ‘flat’, *tunn* ‘thin’, or *låg* ‘low’.

# 11 The semantics of *lång* ‘long’ and *kort* ‘short’

The purpose of this chapter is to give a thorough and detailed account of the meaning of the dimensional adjectives *lång* ‘long’ and *kort* ‘short’. The adjective *lång* ‘long’ has a marked sense, indicating great extension in relation to a certain norm, and an unmarked sense, indicating no relation to a norm but only indicating the dimension concerned.

*Lång* ‘long’ and *kort* ‘short’ are commonly referred to as antonyms.

*Lång* ‘long’ and *kort* ‘short’ can describe both spatial and temporal dimensions. My study concerns only the spatial and concrete use of *lång* ‘long’ and *kort* ‘short’.

In this chapter, support is provided for related research on LONG concerning the proportions of the pertinent object. It is suggested that *lång* ‘long’ has the status of a “default” adjective and that it describes an object if *hög* ‘high/tall’, *bred* ‘broad/wide’ or *djup* ‘deep’ are not preferred. For this reason, *lång* ‘long’ has a tighter relationship to these three dimensional adjectives, since its semantics are described partly by reference to *hög* ‘high/tall’, *bred* ‘broad/wide’ and *djup* ‘deep’. *Lång* ‘long’ includes no information on orientation or direction. Although the semantics of *lång* ‘long’ are not specifically associated to a horizontal axis, nevertheless, because of the interaction between the proportions of the object, described as *lång* ‘long’ on the one hand and gravity on the other hand, it often, but not always, describes extension along a horizontal axis. *Kort* ‘short’ is the preferred antonym of *lång* ‘long’ but if the supposedly maximal extension is not easily discerned, *kort* ‘short’ is not used. Instead, the object is described as *liten* ‘small’.

## 11.1 *Lång* ‘long’ in the dictionaries

SAOB distinguishes between two spatial meanings: one related to spatial extension in three-dimensional space, such as *från en höjd syntes staden med sin långa raka gata* ‘from high up, the town with its long straight street was visible’ and the other to movement extending over a great distance, such as *en lång resa* ‘a long trip’ or *en lång promenad* ‘a long walk’. In addition, SAOB discerns a spatial, positional meaning which relates to a point at a great distance from something, such as *långt borta* ‘far away’. The neuter form *långt* of the adjective functions as adverbial in these cases. These three main meanings are the spatial meanings of *lång* ‘long’,

according to SAOB (even if SAOB does not make any distinction with respect to spatial versus non-spatial uses). There are other meanings as well, among them *lång* ‘long’ referring to an oral or written utterance, such as *lång roman* ‘long novel’, and *lång* ‘long’ referring to temporal extension, such as *lång tid* ‘long time’.

The first spatial sense, which relates to spatial extension in three-dimensional space, is described as an object having great or relatively great extension in its largest dimension, especially in a horizontal direction. It is opposed partly to *hög* ‘high/tall’, *djup* ‘deep’ and *bred* ‘broad/wide’, partly to *kort* ‘short’.

The first spatial sense has several sub-senses. Among these are the use of *lång* ‘long’ to describe the human body, body parts and clothes.<sup>60</sup> Further, there is the use of *lång* ‘long’ in describing a series or a row (of persons or objects), such as *en lång rad av frågetecken* ‘a long line of question marks’. Moreover, one sub-sense relates to distances as in *på långt avstånd* ‘a long way away’. Another sub-sense is the use of *lång* ‘long/tall’ to describe the vertical extension of human beings.

Bonniers svenska ordbok describes *lång* ‘long’ as determining an object with a certain length or a (relatively) great length, or determining an entity of a certain duration or of (relatively) great duration.

NEO discerns (at least) three main senses: a spatial sense, a second spatial sense, which involves transportation over a great distance, and a temporal sense. The first main sense is expressed as referring to something with great extension in one of its spatial dimensions, usually the largest of the horizontal dimensions. Under the first main sense are grouped sub-senses regarding the human body and body parts, as well as clothes. Here, we find a “neutral” sense too, which is used to indicate measurement in a certain direction, *bordet är en meter ~t* ‘the table is a metre long’. Under the second main meaning of *lång* ‘long’, we find the sub-sense expressed as referring to something that consists of a large number of something: *en lång rad vagnar* ‘a large number of carts’ (NEO). Another sub-sense concerns neutral indication of distance or length, as in *sträckan var 3 mil lång* ‘the route was thirty kilometres long’ (NEO). Under the third main sense, there is a sub-sense concerning presentations etc., for which the synonym “utförlig” ‘exhaustive’ is given. The examples given are *predikan* ‘sermon’, *meningar* ‘sentences’ (*han talade alltid med långa meningar* ‘he always spoke in long sentences’) and *berättelse* ‘narrative’.

According to Illustrerad svensk ordbok, *lång* ‘long’ has six main senses, of which two have the epithet “bildligt” ‘metaphorical’ and therefore the remaining four should be considered less metaphorical.<sup>61</sup> The first one of

<sup>60</sup> These domains, however, have been excluded from the present study, see Chapter 4 (Data and methodology).

<sup>61</sup> The main meanings with the epithet “bildligt” ‘metaphorical’ are connected to the other main meanings in such a way that after the concrete meaning of *lång* ‘long’

these four remaining main senses concerns spatial extension. More specifically this sense can be used about tallness of a human being as well as about body parts, about a (part of a) piece of clothing which extends far down or far up, about a series or row of persons or objects, about distances, and, at last, about drinks *han tog en lång visky* ‘he had a large whisky’. The second of these four remaining main senses is also a spatial sense but refers to transportation and the explanation reads: “som sträcker sig över ett stort avstånd *en l. resa, promenad*” ‘which extends over a great distance; a long journey, a long walk’. The third of these four remaining main senses is about an *ytrande* ‘utterance’ or a *framställning* ‘presentation’, or a *tankegång* ‘train of thought’, or a *resonemang* ‘discussion’. The examples given are *bok* ‘book’ and *predikan* ‘sermon’. The last of the four remaining main senses concerns clear-cut temporal extension.

Nusvensk ordbok discerns two main senses: one spatial, one temporal. The spatial sense is divided into two groups with the first treating more concrete uses, such as *en tre meter lång stuvbit* ‘a three-metre long offcut’ and the second more figurative uses, such as *bli lång i ansiktet* ‘pull a long face’. The former, more concrete spatial sense group is divided into five sub-senses. The first involves clothes, humans and body-parts as well as the piece of fabric quoted above. The second includes uses such as *stygn* ‘stitches’, *steg* ‘steps’, *stift* ‘pins’, and *trådar* ‘threads’. The third sub-sense lists nouns such as *väg* ‘way’, *avstånd* ‘distance’, and *omväg* ‘detour’. The fourth refers to *bokstäver* ‘letters’ (pointing out *f*, *g*, and *h*), *rader* ‘lines’, *meningar* ‘sentences’, *stycken* ‘paragraphs’ and *brev* ‘letter’. The last sub-sense treats an old-fashioned or regional expression *var kommer fröken från som längst* ‘how far have you come, Miss’ indicating starting-point of a distance. Like the spatial sense, the temporal sense is divided into two groups, the second labelled “friare o. bildl.” ‘freer and figurative’. Here, we find the sub-sense of uses such as *tal* ‘speech’, *meningar* ‘sentences’, *predikningar* ‘sermons’, *inledning* ‘introduction’ and *uppsats* ‘paper, essay’.

## 11.2 Related research in the past on LONG

Greimas (1966) defines French *long* ‘long’ and *court* ‘short’ as expressing spatiality, dimensionality, horizontality, perspective, but not verticality or laterality. Greimas’s analysis is mainly intended to illustrate a mode of systematising sememes, a kind of semantic unit, and not to discuss the dimensional adjectives (Greimas 1986:33–35). Horizontality in this case refers to the assumption that *long* ‘long’ and *court* ‘short’ refer to a

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describing among other things body parts, figurative expressions including *lång* ‘long’ and body-parts are listed, as in *ha långa fingrar* ‘be light-fingered’.

dimension which extends in the front-back axis, as opposed to the vertical (up-down) axis and the lateral (left-right) axis.

According to Bierwisch (1967), the semantics of German *lang* 'long' and *kurz* 'short' should be understood in terms of proportions and one-dimensionality. By one-dimensionality, Bierwisch means that the adjectives *lang* 'long' and *kurz* 'short' describe one dimension (although the object described may have more). Bierwisch further claims that *lang* 'long' and *kurz* 'short' include a quality of inherency. Inherency should be understood as meaning that a certain extension of an object, in this case the extension described as *lang* 'long', is described in the same way no matter how the object is turned or tilted. Moreover, Bierwisch points out that many objects have a maximal axis. If this axis is normally vertical, it will be described as *hoch* 'high'. If, instead, this axis is not (normally) vertical, it will be described as *lang* 'long'. However, if one of the dimensions of an object is aligned with an observer's line of sight, and this dimension is not at the same time maximal, then *lang* 'long' will be ruled out. Provided the vertical dimension is not the maximal one, the sideways dimension will be the maximal one. This is the case for *Schreibtisch* 'desk'. No dimension is called *lang* 'long'. The dimensions are instead called *hoch* 'high', *breit* 'broad/wide' and *tief* 'deep'.

According to Fillmore (1997:40), in English *long* or *short* are used to refer to an object which has one dimension considerably larger than the others.<sup>62</sup> For oriented moving objects, the front-to-back dimension is called *long*, as opposed to stationary objects, for which the front-to-back dimension is called *deep*.<sup>63</sup>

Clark (1973) describes English *long-short* and *far-near* as the two most elementary pairs of adjectives, since they can describe one-dimensional lines. The term *length* is considered a neutral term that can be used in the definitions of the other dimensional adjectives.

Lyons (1977) starts the process of naming the dimensions of a physical object in English by asking whether the object has a maximal dimension. If the answer is no, the object has no *length*. If the object has a maximal extension, this is identified as its *length*. This is valid for an unoriented entity. However, verticality (whether inherent, canonical or actual) takes precedence over maximality. Furthermore, a dual-purpose piece of furniture may be described as *long* and *wide* when considered a table but as *wide* and *deep* when viewed as a desk with a canonical orientation. The *width* of an object cannot exceed its *length* since we do not use *length* if canonical

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<sup>62</sup> The work is a lecture series, which was given in Santa Cruz 1971. It was not published until 1997.

<sup>63</sup> The examples are more or less taken from Bierwisch (1967), according to Fillmore (1997). In my reading of Bierwisch, I do not find the assumption that the front-back-dimension of a moving object is described as LONG.

orientation has led to the assignment of *width* to its larger horizontal extension (Lyons 1977:701–702).

In Galeote et al. (1999), Spanish informants were asked to name certain dimensions of drawn objects. The purpose was to test whether Lyons (1977) predicts correctly the use of dimensional terms in adult performance. Adults made some “errors” (compared to Lyons’s predictions) regarding the LENGTH of objects, especially with regard to an upright wooden block, whose vertical dimension some informants preferred to describe as its LENGTH, instead of HEIGHT as predicted by Lyons. According to the authors, the dimensional terms can be ranked in order of difficulty, DEPTH being the most difficult (most informants make “errors”) and HEIGHT the easiest. Length is ranked above HEIGHT in difficulty, i.e. it is more difficult than HEIGHT but less difficult than WIDTH, THICKNESS and DEPTH.

Lafrenz (1983) studies German *lang* ‘long’. According to his analysis, *lang* ‘long’ refers to the maximal dimension of an object, provided this maximal dimension is not at the same time vertical. (If the vertical dimension has an upward direction, the dimension will be referred to as *hoch* ‘high’, while if the dimension has an downward or inward direction, the dimension will be referred to as *tief* ‘deep’.) *Lang* ‘long’ is neutral in relation to direction. Further, if an object is oriented towards an observer, the maximal dimension might be described as *breit* ‘wide’, as is the case for *Schrank* ‘cupboard’. Moreover, proportionality is part of the analysis. If a two- or three-dimensional object has two main dimensions which differ very little from each other in size, the object will not be referred to as *lang* ‘long’, as in *Buch* ‘book’ or *Sessel* ‘armchair’. Again, if an object is too large to be viewed as a whole, such as *Meer* ‘sea’ or *Wüste* ‘desert’, it will not be referred to as *lang* ‘long’. In addition, these objects are so large that they can only be compared to other members of the same category with the help of encyclopaedic knowledge, which, according to Lafrenz, would speak against the use of *lang* ‘long’. For other objects, like *Stein* ‘stone’ and *Wolke* ‘cloud’, the norm of comparison is difficult to determine and therefore, although these objects may be described in terms of *Länge*, *Breite*, *Höhe* ‘length, width, height’, they are not referred to as *lang* ‘long’. Rather, a shape adjective such as *länglich* ‘oblong’ would be used. Finally, in some uses, the adjective *lang* ‘long’ refers to a comparison between the length and width of an object, rather than comparison with some other object. This is the case with *ein langer See* ‘a long sea’.

Lang (1989) points out that German *lang* ‘long’ can describe one, two, or three-dimensional objects (1989:273). Furthermore, he distinguishes between the Gestalt of an object and its geometrical form, and he also includes its typical shape. Lang prefers to include the Gestalt only in the analysis. Further, objects must meet some standards in order to be described by dimensional adjectives. They must show certain regularity of symmetry. A

cloud is not easily described using dimensional adjectives (Lang 1989:347–348).

In Lang's analysis, there are different parameters that correspond to dimensional adjectives in a certain pattern. The parameter corresponding to *lang* 'long' is above all max (maximality). Max identifies the most extended disintegrated axis of object *x*. (Lang 1989:349) In addition, only one extension of an object can be the maximal one, except for a square described as *lang* 'long' and *breit* 'wide'. Not only the canonical maximal axis, but also the actual maximal axis, is described as *lang* 'long'. But *lang* 'long' can sometimes be assigned to a non-maximal axis, as in the expressions (485), (486) and (487), collected from (Lang 1989:349).

(485) Die Drillemaschine ist breiter als lang. 'The seed drill is wider than (it is) long.'

(486) Unser neues Doppelbett ist 2m lang und 3m breit. 'Our new double bed is 2 m long and 3 m wide.'

(487) Der Samtrest ist 1.30m in der Breite, aber nur 0.50m lang. 'The velvet remnant is 1.3 m in width but only 0.5 m long.'

Each of the three expressions above (485), (486) and (487) can be said to deviate from prototypes of their class. Lang notes about example (485) that for non-human moving objects, the maximal axis becomes the axis of motion. Therefore, the LENGTH will be the extent between front and rear. However, a seed drill is an atypical vehicle. The bed of (486) is a case of LENGTH and WIDTH being attributed on the basis of a single bed, and then being "inherited" by the double bed. The fabric of (487) is a small piece (a remnant) that is described in the same way as the whole length, irrespective of its proportions. This analysis has some resemblances to Spang-Hanssen (1990), where it is pointed out that when smaller pieces are cut from a larger object, they can be described in terms of the proportions of the larger object even though it has other proportions itself.

Lang (2001) identifies a parameter max, which corresponds to the maximal dimension of the object, provided there is exactly one maximal dimension available. According to Lang (2001), in certain languages, there is a phenomenon that means that if a vertical dimension is described with a vert term, the maximal dimension of the same object must or may then be described by the across term, which is distinct from the max term (see Chapter 5 on *hög* 'high/tall', section 5.2.1. It seems as if Swedish could be one of these languages. In that case, an object such as a whiteboard would be described by the vert term, *hög* 'high/tall', and then the across term, *bred* 'wide', rather than the max term *lång* 'long'.

Vandeloise (1988) studies English *length* and *width*. He starts by recalling Bierwisch (1967), in which, according to Vandeloise, the shape of an entity alone is taken into consideration in explaining the semantics of

dimensional adjectives. Vandeloise suggests an analysis that, apart from the shape of an entity, also treats factors such as the motion of the object and its function, the orientation of the speaker and the passage of the object by or through another element.

Vandeloise seeks answers to two questions. The first is what objects have *length*, and the second which dimension is identified as the *length*. According to his analysis all objects have *length*, except those belonging to three certain object types. The first type without length consists of objects with vertical surfaces situated in front of the speaker and whose *height* is the largest dimension. An example would be a window. The second type comprises objects whose supposed *length* would be greater or equal to their *width*. One example would be a razor blade. In describing this object, the larger side is acknowledged as its *width* and it has no *length*. However, if a speaker wants to describe both horizontal sides simultaneously, the larger side will be referred to as the *length*. Further, if the *length* and *width* are equal, the object has no *length*, unless it is mobile. In that case, its *length* is evaluated along the direction of movement. The third type consists of objects that lack any significant extension along the direction of *length*. One example would be a flea. This constraint applies not only to *length* but to other dimensions as well. (Vandeloise 1988:409–410.)

The issue of what dimension will be identified as the *length* is analysed by introducing the concept of “potential passing”, as well as acknowledging the importance of the proportions of the object. It is not possible to find a superordinate schema that characterises all the usages of *length* so that the “metric usage rule”, which takes proportions into account, and the “potential passing usage rule” are both involved in the semantics of *length* (Vandeloise 1988:404).

One problem, which is solved elegantly in Vandeloise, is the difference between how the *length* of a poker and the *length* of a thread is evaluated. Vandeloise accurately points out that the *length* of the poker, which is a rigid object, is evaluated along a projection of the shape (the arrow marked L in Figure 31), while the *length* of the thread, a flexible object, is evaluated along its actual shape.

Vandeloise thus proposes the rule of potential passing as follows: “the length/width of an entity is its extent along a direction parallel/perpendicular to its direction of potential passing (through, next to or by an object suggested by the discourse context)” (Vandeloise 1988:417). This rule should be understood as describing either the movement of an object past a landmark (for example, a human), a car past a person, or an object passed by some other entity (for example, a human walking along a building). The thread of Figure 31 will pass a certain landmark, for example the needle’s eye, in a direction, which is parallel to its *length*. The poker of Figure 31 will pass a certain landmark, for example the outer edge of the stove, in a direction, which is parallel to its *length* (or more precisely:

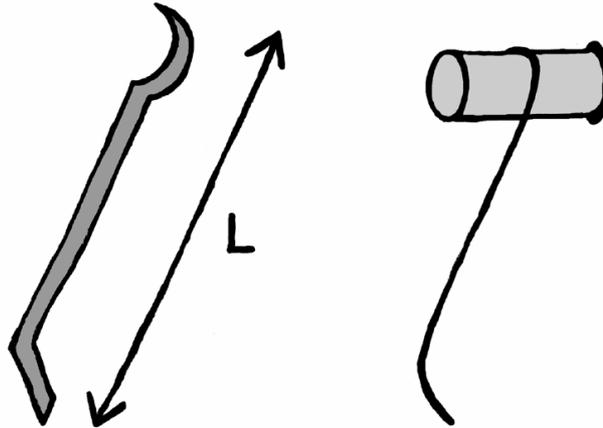


Figure 31. The *length* of a poker compared to the *length* of a thread. After Vandeloise (1988:405)

parallel to the projection, along which the *length* is evaluated). As opposed to the thread, the poker is rigid and cannot pass a landmark in a direction along its actual shape.

Moreover, Vandeloise discusses different types of passage. When a mobile entity passes an immobile landmark (such as a streetlamp), it can be either successive, simultaneous or mixed, depending on the nature of the mobile entity. In the case of a car, the points of the landmark will be passed successively. If a human being or some other vertical object moving on a horizontal plane passes the landmark, passage will be simultaneous (Vandeloise 1988:416). This will then be perceived as happening momentarily with no duration in time. This can be illustrated by the fact that the Swedish utterance *Halva Yasmine hade passerat lyktstolpen* ‘Half of Yasmine had passed the streetlamp’ sounds rather strange whereas the utterance of *Halva bilen hade passerat lyktstolpen* ‘Half the car had passed the streetlamp’ is well-formed. The introduction of the time dimension and the examples in which only half of a human being or a car pass a landmark are my own interpretation of Vandeloise’s analysis. Finally, a poker passes a landmark in a mixed way. Different ornaments extending sideways will pass the landmark simultaneously, while the length axis will pass the landmark successively (Vandeloise 1988:416).

Vandeloise’s “potential passing” only treats *length* when this dimension is parallel to the direction of movement. Objects such as curtains have LENGTH too, but the dimension is vertical. Likewise, a stalactite is *lång* ‘long’. A stalagmite, on the other hand, which is attached to the ground, is instead *hög* ‘high/tall’ (see Dirven and Taylor 1988:391–392, where it is stated that *stalagmites* are *tall* while *stalactites* are not). Thus, the stalactite is *lång* ‘long’ while the stalagmite is not. Vandeloise’s analysis does not account for this difference.

The way in which Vandeloise treats *length* and *width* jointly indicates that the two units are connected to each other in a parallel way. It resembles Bierwisch (1967) and Lang (1989, 2001), see above, since these studies define the semantics of *breit* ‘broad/wide’ (Bierwisch 1967, Lang 1989) and *wide* (Lang 2001) as derived from the semantics of other dimensional adjectives. However, *breit/wide* are not solely derived from *lang/long* but from *hoch/high* and *tief/deep* as well.

Spang-Hanssen (1990), analysing the French spatial dimensional terms, claims that every object has *longueur* ‘length’. The maximal dimension is the one identified as the *longueur* ‘length’. Spang-Hanssen further points out that *longueur* ‘length’ can be used for any dimension in the question *Quelle est la longueur de l’arête AB?* ‘what is the length of the edge AB?’. This can be compared to the unmarked sense of the adjective, see introduction to this chapter. If objects have a canonical orientation, the dimension extending from front to back is always *longueur* ‘length’, even if it is not the maximal dimension.

Spang-Hanssen suggests an algorithm for labelling the dimensions of an object. The maximal extension is *longueur* ‘length’ if it has not already been labelled *hauteur* ‘height’, due to its verticality. This analysis, however, is only valid for non-oriented objects. For oriented objects, a more complex situation is depicted. The maximal dimension can (still) be identified as the *hauteur* ‘height’, but also as the *largeur* ‘width’, which is the case for a *canapé* ‘sofa’. The priority seems to be the following: *longueur* ‘length’ can be attributed to objects with interior dimensions if a dimension remains available after (1) the dimension perpendicular to the open side (if applicable) has been labelled *profondeur* ‘depth’, (2) after the vertical dimension has been labelled *hauteur* ‘height’ (if applicable), and (3) after the horizontal dimension of the front (if applicable) has been labelled *larguer* ‘width’. The maximal extension will then be labelled *longueur* ‘length’. Spang-Hanssen does not give any examples. I interpret his analysis as meaning that an object to which LENGTH is ascribed on to these premises would be a ditch, since the ditch has an open side, but lacks both a vertical dimension, which can be labelled HEIGHT and a front (i.e. it is possible to omit a label if not applicable for object in question).

*Longueur* ‘length’ has somewhat higher priority for objects without interior measurements. A dimension may be identified as *longueur* ‘length’ if a dimension is still available after (1) the minimal extension has been labelled *épaisseur* ‘thickness’ (if applicable) and (2) after the vertical dimension has been labelled *hauteur* ‘height’ (if applicable). Then, (3) the horizontal dimension of the front (if applicable) will be identified as the LENGTH. An object to which LENGTH would be ascribed on to these premises would, as I see it, be a lorry.

A second opportunity arises to use *longueur* ‘length’ for an object without interior dimensions if a dimension still remains available after (4)

the horizontal extension of the front (if applicable) has been labelled *largeur* ‘width’, and (5) after the dimension perpendicular to the front has been labelled *profondeur* ‘depth’. In that case, the maximal extension may be referred to as *longueur* ‘length’. An example of an object ascribed LENGTH on these premises would, to my understanding, be a framed picture, where the left-right dimension for some reason (for example because it has an excessive greatness) is not called WIDE but LONG.

Stolz (1996) studies spatial dimensional terms in Yucatec Maya. Its findings state that *chowak* ‘long’ can describe one, two or three-dimensional objects. It refers to the maximal axis of three-dimensional objects if the maximal axis is not aligned with the vertical axis (or where the alignment is not relevant). *Chowak* ‘long’ may refer to an axis which is not at the same time the maximal one. This is the case when an object is described as *chowak* ‘long’, *kòoch* ‘wide’ and *táam* ‘deep’. Stolz explains this phenomenon as a consequence of *táam* ‘deep’ being insensitive to the criterion of proportions. An axis described as *táam* ‘deep’ may be maximal or not. *Chowak* ‘long’, in these cases, describes the maximal dimension of the plane orthogonal to the dimension described as *táam* ‘deep’. Apart from *táam* ‘deep’, *chowak* ‘long’ may also interact with *ka’nal* ‘high’. When describing objects like fences, doorways, walls and doors, one dimension is identified as *ka’nal* ‘high’. The dimension orthogonal to the dimension described as *ka’nal* ‘high’ will either be called *kòoch* ‘wide’ (if the dimension described as *ka’nal* ‘high’ is maximal) or it will be called *chowak* ‘long’ (if the dimension described as *ka’nal* ‘high’ is not maximal). When describing an object like a building, on the other hand, the extension of the dimension described as *ka’nal* ‘high’ does not influence the description of the other axes. Then the two axes perpendicular to the vertical one will be described as *chowak* ‘long’ and *kòoch* ‘wide’ irrespective of their extension. Stolz explains the difference by pointing out that a house has a canonical or inherent vertical orientation, while fences, doorways, walls and doors are instead free of orientation with respect to the vertical. Stolz wants to characterise the basic meaning of *chowak* ‘long’ as identifying the maximal dimension of a one, two, or three-dimensional object. She attributes the cases where *chowak* ‘long’ does not refer to the maximal axis to semantic properties of the observer or vertical axis (Stolz 1996:205, 213–214).

In Wienold and Rohmer (1997) an implicational scale concerning the dimensional adjectives across languages is introduced, see Chapter 2 (Previous related research). For LENGTH, this means that all languages that have terms for LENGTH also have terms for SIZE. Languages need not have terms for DISTANCE, DEPTH and HEIGHT, and in this case, the term for LENGTH covers those concepts, too. When the expression for LENGTH denotes height, height is usually the maximal dimension. Twelve languages are listed in Wienold and Rohmer, among them Navajo, Hausa, and

Tibetan, where expressions for DISTANCE, DEPTH and HEIGHT may be derived or construed from the expression for LENGTH.<sup>64</sup> (Wienold and Rohmer 1997:151, 160–161.) Note that Wienold and Rohmer’s two separate implication scales concur with the two separate systems proposed by Linde-Usiekniewicz’s (2000, 2002) (see further on in this section), where HEIGHT, DEPTH and LENGTH form one system and WIDTH and THICKNESS form another.

According to Weydt and Schlieben-Lange (1998), just like *hoch* ‘high’ and *tief* ‘deep’, German *lang* ‘long’ can describe the first dimension in their two-step sequence of comprehending and labelling dimensions, see Chapter 2 (Previous related research). They write: “*Hoch* is used for verticality, *tief* for penetration into the interior, and *lang* in all other cases. *Lang* as opposed to *breit* is used for the longer dimension.” (Weydt and Schlieben-Lange 1998:202.) Further, in a two-dimensional description, the longer extension is described as *lang* ‘long’. When informants are asked by Weydt and Schlieben-Lange to mention three nouns, which go particularly well with *lang* ‘long’, the top five nouns are *Schlange* ‘snake/queue’, *Weg* ‘way’, *Straße* ‘street’, *Zeit* ‘time’ and *Haar* ‘hair’. In Weydt and Schlieben-Lange the meaning of *lang* ‘long’ is characterised as denoting one-dimensional objects or the measurements in the first dimension, provided this dimension is not already occupied by *hoch* ‘high’ or *tief* ‘deep’. Moreover, *lang* ‘long’ is an extent adjective without endpoints or direction.

Linde-Usiekniewicz (2000, 2002) studies Polish dimension terms, both adjectives (where she distinguishes between evaluative adjectives and nominative adjectives, the latter forming part of a measure phrase), adverbs and nouns.<sup>65</sup> She describes the dimension terms concerning LENGTH as depending on one axis of an object being salient and used for orienting the object. An axis can be salient either because it is the largest one, such as *długi kij* ‘a long stick’, or it is marked by asymmetry, such as *krótki pędzel na długiej rączce* ‘a short brush with a long handle’. Linde-Usiekniewicz (2002) includes LENGTH in a subsystem related to orientation of which HEIGHT and DEPTH are also members. These concepts are often treated as primary or independent terms. Another subsystem includes WIDTH and THICKNESS, which are both related to surface (see section 6.2 in Chapter 6 on *bred* ‘broad/wide’ and section 8.2 in Chapter 8 on *tjock* ‘thick’). These concepts, according to Linde-Usiekniewicz, are often treated as secondary or dependent terms. On the other hand LENGTH is, just like WIDTH and THICKNESS, independent of the axes in space and relies only on some properties of the objects themselves as well as on the purpose for which

<sup>64</sup> Navajo is spoken in the American South-west. Hausa is spoken in northern Nigeria and neighbouring parts of Niger. Tibetan is spoken in Tibet but also in Nepal and other neighbouring areas.

<sup>65</sup> Her distinction evaluative/nominative corresponds to the distinction marked/unmarked.

they are given (Linde-Usiekniewicz 2000:262–263). My understanding of Linde-Usiekniewicz is that she does not equal dependence on the axes in space with orientation. Linde-Usiekniewicz (2000), argues that LENGTH depends “on one axis of an object being salient and used for orienting the object” (Linde-Usiekniewicz 2000:262), however, this orientation process is evidently not directly associated to the directed axes in space, as is the case for height and depth.

According to Rakhilina (2000), it is enough if an object has an outstretched form, like a lace or a nail, for it to be described by Russian *dlinnyj* ‘long’. Such objects have to have a constant, fixed shape.

### 11.3 Claims concerning *lång* ‘long’

*Lång* ‘long’ can be described as a simple category, having prototypical and peripheral uses. *Lång* ‘long’:

- Refers to a maximal extension, where the adjective either has a marked sense, indicating great extension in relation to a certain norm, or an unmarked sense which includes no information in relation to a norm and merely indicates the maximal extension.
- Refers to internal or external dimensions.
- Refers to an extension that has not already been described by another dimensional adjective with regard to orientation and/or direction.

The simple category can be described as a central cluster of many members which are prototypical and a few peripheral ones. Among the prototypical uses, *lång väg* ‘long road’, *lång stång* ‘long pole’, and *lång sträcka* ‘long way’ can be found. Peripheral uses include for example those where the actual and canonical maximal dimension do not coincide, like for instance a very wide double bed, whose non-maximal dimension can be described as *lång* ‘long’. Another peripheral use is *en lång zeppelinare* ‘a long Zeppelin’, where an oval object is described as *lång* ‘long’. An egg, which has approximately the same shape, is not described as *lång* ‘long’, presumably because it does not move.

### 11.4 Results and discussion on *lång* ‘long’

In this section, I will discuss *lång* ‘long’ from the point of view of three notions: function, shape and orientation. Thereafter, its relationship to the adjectives *hög* ‘high/tall’, *djup* ‘deep’ and *bred* ‘broad/wide’ will be examined. As will be shown, the referent classes that *lång* ‘long’ may describe exhibit great homogeneity. Subgroups within the homogenous group have been delineated but no count has been made of the number of

instances they contain. Some focus has been placed on peripheral uses but it has not been considered necessary to enumerate them in order to understand the semantics of the adjective.

### 11.4.1 Function

As pointed out in section 11.2, Vandeloise (1988) suggests that when *length* is attributed to an object, function and proportion are equally important. The notions of function and proportion are also of great importance when identifying objects that possess *length* in the first place. Without disagreeing with Vandeloise on this point, I would like to claim that objects described by Swedish *lång* ‘long’ do not share any clear-functional qualities. Unlike for instance *djup* ‘deep’, where the container function is prominent or *trång* ‘narrow’ where the function of container, passage and path is prominent, the function of objects is not an important aspect of the semantics of *lång* ‘long’. The adjective can be used to describe objects with a variety of functions. In *en lång gata* ‘a long street’ a path is described, in *en lång slang* ‘a long hose’, a passage is. Further, a container may be referred to as *lång* ‘long’: *en lång soffa* ‘a long couch’, as may an instrument: *en lång kniv* ‘a long knife’.

### 11.4.2 Shape

In accordance with earlier studies on LONG, it can be stated that the adjective *lång* ‘long’ primarily describes the maximal extension of an object (see e.g. Lang 1989, Spang-Hanssen 1990). Bierwisch points out that German *lang* ‘long’ includes a degree of inherency. An object is primarily described as *lang* ‘long’ thanks to its proportions. This is valid for Swedish *lång* ‘long’ as well. As has been observed in several earlier studies, the maximal dimension may be described by some other adjective and *lång* ‘long’ (LONG) is then disbarred for this dimension. There is some disagreement among previous studies about why some other adjective may describe the maximal dimension. It is my contention that *lång* ‘long’ describes the default case when a maximal dimension is not described according to orientation or function. This is discussed in the next section.

Since *lång* ‘long’ needs a maximal extension, *lång* ‘long’ tends to be used to describe objects with one dimension that has a clearly larger extension than the others. In the elicitation test, 20 out of 23 nouns referred to objects of this kind, such as *väg* ‘road’, *sträcka* ‘way’, *tågräls* ‘rail’, and *mätstock* ‘measuring rod’.

*Lång* ‘long’ can describe cubes and squares, but only if the intention is to measure the side of the geometric figure, as in (488). If this is not expressed, as in (489), the utterance sounds odd.

(488) Hur *lång* är *sidan* på kuben/kvadraten? (constructed) ‘How long is the side of the cube/square?’

(489) ?Hur *lång* är *kuben/kvadraten*? ‘How long is the cube/square?’

This concurs with Lang (1989:301–302), where it is claimed that a square-shaped backyard may be referred to as *Der Hof is  $m_1$  lang und  $m_2$  breit* ‘the backyard is  $m_1$  long and  $m_2$  wide’. The observation can also be linked to Vandeloise (1988), in which it is assumed that length is attributed to a razorblade only if somebody wants to talk about both sides of the blade at the same time. Otherwise, the razorblade has no length (Vandeloise 1988:409–410). In Yucatec Maya, a square is described rather by *u kòochil* ‘its width’ which then refers to both dimensions (the square being perceived as having two widths), but this is only possible under very specific circumstances (Stolz 1996:29).

As pointed out by Lang (1989:349) and Vandeloise (1988:410), among others, a sphere-shaped object is not described as LONG; a Swedish example would be *?en lång badboll* ‘a long beach ball’. However, a round, elongated shape that forms an oblong, may be described as *lång* ‘long’:

(490) En 15 centimeter *lång sköldpadda* hittas vid Mölndalsån i centrala Mölndal. (p98) ‘A turtle, six inches long is found in the river in central Mölndal.’

(491) Jag märkte plötsligt hur *långa vita ballonger* sköt fram ur näsan på mej för varje utandning. Vid mötet med den kalla vinterluften tog min andedräkt ny form och blev synlig för blotta ögat. (B76–77) ‘I suddenly noticed how long white balloons shot from my nose every time I breathed out. Meeting the cold winter air, my breath took on new form and became visible to the naked eye.’

In (490) the turtle is described by a measure phrase, which increases the acceptability of the use of the adjective *lång* ‘long’. Nevertheless, the collocation *en lång sköldpadda* ‘a long turtle’ sounds peculiar. In (491), a person’s breath in the cold winter air is described as *långa vita ballonger* ‘long white balloons’. (The text contains a metaphor, but this fact does not seem relevant for the purpose.) Note that the turtle has its direction of movement in the axis described as *lång* ‘long’. *En zeppelinare* ‘a Zeppelin’ is another oval, moving object which may be described as *lång* ‘long’ although not *ett ägg* ‘an egg’, possibly because it does not move.<sup>66</sup> This explanation would agree with Vandeloise (1988). The balloons of breath, on the other hand, do not move in the same way as the turtle or the Zeppelin. In the case of the balloons, the movement is more one of expansion/contraction.

Lang (1989:273), among others, asserts that LONG can describe both one, two and three-dimensional objects. A Swedish example of a one-dimen-

<sup>66</sup> I thank Tomas Riad for this observation.

sional line is *en lång linje* ‘a long line’, a Swedish example of a two-dimensional surface is *en lång rektangel* ‘a long rectangle’, while all the examples previously cited have referred to three-dimensional objects.

Apart from the shapes that have been mentioned above (cylinders and outstretched oblong shapes), flat shapes, both regular ones like *en lång bräda* ‘a long board’, and organic ones like *långa blad* ‘long leaves’, are aptly described by *lång* ‘long’. Cuboid-shaped objects, such as *en lång ask* ‘a long box’, can be described by *lång* ‘long’, as well as cone-shaped objects, such as *en lång strut* ‘a long cornet’. It has already been pointed out in connection with dimensions that rectangles as well as lines can be described as *lång* ‘long’. Like spheres circles are not described as *lång* ‘long’ (see Lang 273–276 among others concerning LONG).

In the elicitation test, the noun *sträcka* ‘way’ occurred, which may be understood as referring to a one-dimensional line, while the noun *snöre* ‘string’, which also was given, can refer to an object which is idealised to a one-dimensional line. The remaining nouns from the elicitation test referred to two-dimensional surfaces (*väg* ‘way’) and three-dimensional objects (*banan* ‘banana’ and *buss* ‘bus’).

As opposed to what Lang (1989:347) claims for German *lang* ‘long’, an object need not be especially regular in order to be described by Swedish *lång* ‘long’. Lang writes that a cloud is not described by dimensional adjectives. The corpus contains one occurrence of a cloud being described as *lång* ‘long’, see (492). However, it is probably necessary to be able to idealise the object to some geometric shape.

- (492) Så brast det för honom och ett tre meter *långt moln* av slem och spott och lösrivna alveoler med papperskulorna som stigfinnare forsade ur munnen på honom och inhöljde Kvalstret från topp till tå. (B76–77) ‘Suddenly, he couldn’t take it anymore and a three metre long cloud of mucus and saliva and detached alveoli with the paper pellets as trailblazers gushed out of his mouth and smothered the Mite from top to toe.’

The fact that example (492) is not about a cloud in the sky but about a cloud formed by mucus etc. seems to be irrelevant for the present purpose.

As was pointed out by several of the dictionaries (SAOB, NEO and *Illustrerad svensk ordbok*), *lång* ‘long’ can describe a unit which consists of many disjunct parts, such as *en lång kö* ‘a long queue’, *en lång rad* ‘a long row’, or *en lång kortege* ‘a long procession’, see section 11.1. The object may form a “negative part” (see Chapter 10 on *djup* ‘deep’ and *grund* ‘shallow’), such as *långt dike* ‘long ditch’.

Fillmore (1997) suggests that the dimension described as *long* is considerably greater than the other dimensions of a given object. This appears to be valid for Swedish *lång* ‘long’, too. In the corpus, there are some examples where rooms are described according to their dimensions. There are 22 instances of the noun *korridor* ‘corridor, passage’ being

described as *lång* ‘long’, whereas only 12 for the noun *rum* ‘room’.<sup>67</sup> The shape of a *korridor* ‘corridor’ means that one extension is considerably larger than the others, which is seldom the case for a *rum* ‘room’. Note that *rum* ‘room’ and *rummet* ‘the room’ occurs nearly 12 times more frequently than *korridor* ‘corridor’ and *korridoren* ‘the corridor’ in the corpus in the first place. To describe a *rum* ‘room’ as *stor* ‘large’ is more common. Such descriptions occur 71 times in the corpus. About a third of these collocations involve the lexicalised phrase *stora rummet* ‘the large room’, which means ‘the living room’.

Another illuminating example is that when *lång* ‘long’ describes houses or buildings, the objects are mostly not called *hus* ‘house/building’.<sup>68</sup> I would like to suggest that the reason for this is that generally speaking a prototypical house does not have one dimension that is not considerably larger than the others. It can be assumed that for Swedish-speaking people, such a prototypical house would be a rather small house occupied by only one family and with two storeys, a front door, one window at each side of the door, a sloping roof, and a small garden surrounding it, see Figure 32, picture a. Picture b and c of the same figure show less prototypical houses/buildings.

Of the 18 examples of building/edifices being described as *lång*, only four involve *hus* ‘house/building’. One example is a measure phrase, a construction that increases the acceptability of *lång* ‘long’. Two other examples are *hus* ‘houses’ that in the context have previously been characterised as *längor* ‘long row houses’. Note that the noun *länga* ‘long row house’ is derived from *lång* ‘long’. The last example of *hus* ‘house/building’ is a factory shop:

- (493) På den grund som fortfarande fanns kvar hade Jacob Gavelius 1691 låtit bygga det första fabriks huset, ett *långt envåningshus* av trä med källare under. (B80–81) ‘On these foundations, which can still be seen, Jacob Gavelius constructed the first factory building in 1691, a long one-storey wooden building with a cellar underneath.’

The proportions of a factory differ from those of the ‘prototypical house’, which is not readily described as *långt* ‘long’. There are six occurrences of the use of *lång* ‘long’ to describe a *länga* ‘long row house’ or a compound

<sup>67</sup> I have only looked at occurrences where the adjective functions as an attribute, not as a predicate, in this particular case.

<sup>68</sup> The word *hus* means both ‘house’ (where people live) and ‘building’. According to my linguistic intuition, the lexical unit *byggnad* ‘building’ is a superordinate term which not only covers the meaning of the lexical unit *hus* ‘house/building’ but all sorts of architectural structures which include indoor rooms, such as factories, office buildings, stores, schools and other institutions. There are indications that other native speakers regard the relationship between the units *hus* ‘house’ and *byggnad* ‘building’ differently.

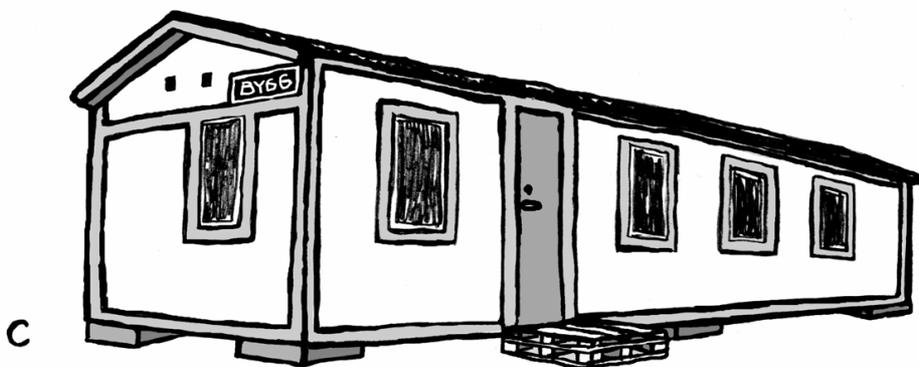


Figure 32 a, b, c. Three various types of *hus* 'houses/buildings'

including it in the corpus. The remaining buildings/edifices described as *lång* ‘long’ are *utställningshall/lada* ‘exhibition hall/barn’, *skjul* ‘shed’, *byggnad* ‘building’, *barack* ‘barrack’, *logementsbyggnad* ‘barrack’, *försvarsverk* ‘defence works’, *parlament* ‘parliament’ and *hangar* ‘hangar’, which in every case may well have one dimension that is considerably larger than the others, unlike prototypical houses. The parliament in the corpus refers to Budapest parliament, which is illustrated in Figure 32, picture b. Picture c shows a barrack.

In Chapter 4 (Data and Methodology) it was noted that a measure phrase enhances the acceptability of combining *lång* ‘long’ with an object which would otherwise perhaps not be described as *lång* ‘long’. This is illustrated by examples (494)–(495).

(494) *Björnspåren* pekade söderut. De var ganska färska men de pekade söderut! Han hukade sig ner för att se bättre: tjugo centimeter breda och trettiofem centimeter *långa*, med tydliga märken efter klorna. (B76–77) ‘The bear tracks pointed south. They were quite fresh but pointed south! He crouched down to see better: 20 centimetres wide and 35 centimetres long, with clear claw marks.’

(495) Reines *rum* var två och en halv meter brett och fyra meter *långt*. (B76–77) ‘Reine’s room was two and a half metres wide and four metres long.’

The bear tracks of (494) and the room of (495) would probably not be described as *lång* ‘long’ without the measure phrases.

It can also be noted that *lång* ‘long’ combines very well with *smal* ‘narrow/thin’.

(496) *Trädgården* var *lång* och *smal*. (B76–77) ‘The garden was long and narrow.’

There is even a Swedish compound, *långsmal*, which means ‘long and narrow’:

(497) Här verkar det bara ligga rader av *långsmala baracker* i en våning, som i ett arméläger, och vi kör rätt på efter skyltarna markerade med “Kliniken för brännskador”. (B76–77) ‘There seems to be nothing here but long, narrow one-storey barracks, like an army camp, and we drive right by the signs marked “Burns Clinic”.’

*Lång* ‘long’ does not very well combine with *bred* ‘broad/wide’, unless in a measure phrase, like (494) above. If an object is both *lång* ‘long’, and *bred* ‘broad/wide’, it is rather described as *stor* ‘big’.

As mentioned in section 11.2, Lang claims that *lang* ‘long’ describes not only the axis which is canonically maximal, but also the actual maximal axis (Lang 1989:349). I would like to point out that there are two different scenarios about which axis is canonically the maximal one and which is actually the maximal one. The first scenario is when the canonical maximal axis and the actual maximal axis coincide. In this case, there will be no

difficulty using the term for LENGTH to denote it. One example would be a (single) bed. The bed usually has the maximal dimension along the same axis on which the human body is (approximately) aligned when sleeping. This axis actually is the maximal one and the dimension is referred to as *lång* 'long'. If the canonical maximal axis and the actual maximal axis do not coincide, the second scenario applies. Scenario number two means that a specific dimension is the canonically maximal one although in some particular case some other dimension is actually the maximal one. Lang's own example of a very wide double bed is a good example. Normally (canonically) a single bed, at least in Sweden, is 2 metres *lång* 'long' and between 0.90–1.20 metres *bred* 'broad/wide'. If a double bed were 2 metres *lång* 'long' but 2.40 metres *bred* 'broad/wide', the 2 metre-extension would still be regarded as its *längd* 'length' while the 2.40 metre-extension would be regarded as its *bredd* 'width'. This second scenario would apply to both a razorblade (Vandeloise's 1988 example) and a seed drill (Lang's 1989 example). It is debatable whether a razor blade (*rakblad*) or a seed drill (*radsåningsmaskin*) would be referred to in Swedish as *lång* 'long'. However, this cannot be ruled out since no other dimensional adjectives seem more apt. Both razorblades and seed drills are moving objects. Motion is a quality that seems to have some impact, if only a limited, on the use of the adjective *lång* 'long'. Recall, for instance, the egg and the turtle and the applicability in Swedish of *lång* 'long' to the turtle, at least in a measure phrase, but not to an egg. As has been pointed out by both Vandeloise (1988:407) and Lang (1989:350), non-human moving objects often have their maximal extension in the front-back axis. Vandeloise (1988:407) suggests that there may be aerodynamic reasons for this phenomenon. The canonical maximal dimension (the front-back axis) predominates over the actual maximal dimension (the sideways axis) in the cases of the razorblade and the seed drill.

There is a difference between the double bed example and the examples with the razorblade and the seed drill. Whereas the double bed is a relatively close sub-category to the superordinate category of bed, for which canonical and actual length coincide, the razorblade and the seed drill are more remote sub-categories to the superordinate category of moving object, in which again canonical and actual length coincide.

In Swedish, the canonical maximal dimension mainly predominates over the actual maximal one, which is not unexpected since otherwise, there would be no such thing as canonical maximality. However, it is possible to imagine a situation where the actual maximal dimension takes precedence over the canonical maximal dimension. This would be the case if the large double bed mentioned above were to be moved, possibly after having been turned. Then, the actual maximal dimension would probably be (re)described as *längd* 'the length'. Since such large double beds are not easy to turn, a better example is a piece of fabric, as in Lang's example (1989:349).

This involves a situation in which the fabric is sold in a store. For fabric, WIDTH is the dimension parallel to the cardboard cylinder, around which it is rolled. Length is the dimension along which the fabric is rolled. This dimension is the maximal dimension. Normally (in the Swedish standard), the *bredd* ‘width’ is 90 cm, while the *längd* ‘length’ varies. For a particular piece of fabric, the dimension which is parallel to the cardboard cylinder (while measuring the fabric) will be termed *bredd* ‘width’ and the dimension orthogonal to this dimension *längd* ‘length’, even if it is not the maximal one. If a customer wants to buy a small piece of fabric, say 50 centimetres, the *längd* ‘length’ will be smaller than the *bredd* ‘width’, which is always constant. When measuring, cutting and not least, when calculating the price (which is computed according to the *längd* ‘length’), the smaller dimension will be referred to as the *längd* ‘length’. In this case, the canonical maximal dimension takes precedence over the actual maximal dimension. However, we may imagine that when the customer comes home to start sewing, the strip of fabric is detached from the canonical situation of measuring and buying, and then the actual maximal dimension can be (re)described as *längd* ‘length’. Now the actual maximal dimension takes precedence over the canonical maximal dimension. This is because the functional situation has changed so that the canonicity is not as strong anymore.

In (p98), I have found an interesting example about *en lång tallrik* ‘a long plate’, see (498). This expression is difficult to interpret. The plate either has an oval or rectangular shape. Another solution would be that it takes a long time to eat it.

- (498) Sill som förrätt kostar 35, och då blir man mätt ty man får en *lång tallrik* med iskalla, ryskt osyltade lagom salta sillbitar i olja, serverade med lök och stekt (!) potatis. (p98) ‘Herring as a starter costs 35, and that fills you up because you get a long (large, large oval) plate of pieces of ice-cold Russian unpickled salted herring in oil, served with onion and fried (!) potatoes.’

The oddness of the example of (498) shows that the maximal extension requirement is very strong, so that when an object like a plate, which has a typical round shape, is described as *lång* ‘long’, a native speaker like myself has difficulties understanding it. Note that *en avlång tallrik* ‘an oval plate’ would be accepted without difficulties. The adjective *avlång* ‘oblong’ is an absolute adjective, as opposed to *lång* ‘long’, which is a relative adjective. *Avlång* ‘oblong’ is not a dimensional adjective, but a shape adjective. As such, it describes the whole object, not just one dimension (compare *sidan/utsträckningen är lång* ‘the side/extension is long’ to *\*sidan/utsträckningen är avlång* ‘the side/extension is oblong’). It says nothing about objects in relation to a norm, as *lång rutschkana* ‘long slide’ not only identifies one dimension as the *längd* ‘length’ but also states that the



Figure 33. Fresh ginger

particular slide has a larger extension than other slides. Furthermore, *avlänge* ‘oblong’ cannot be subject to comparison (*avlänge* ‘oblong’, \**avlänge* ‘oblonger’, \**avlänge* ‘oblongest’), and it cannot be part of a measure phrase (\**5 meter avlänge* ‘5 meter oblong’) (see also Lafrenz 1983:77).<sup>69</sup>

Both Spang-Hanssen (1990) and Stolz (1996) claim that in the languages that their studies concern, French and Yucatec Maya respectively, LONG need not describe maximal extension. According to Spang-Hanssen (1990), *longueur* ‘length’ will identify the front-back dimension of an object with a canonical orientation, even if it is not the maximal one. Stolz shows that a house in Yucatec Maya may be described as *ka’nal* ‘high’, *chowak* ‘long’ and *kòoch* ‘wide’, regardless of the proportions of the house, whereas when describing objects like fences, doorways, walls and doors, *chowak* ‘long’ describes the maximal extension. I regard this as another example of “disagreement” or “competition” between the canonical maximal extension and the actual maximal extension. I believe that there is a prototypical house (in this case for Yucatec Maya speakers, but generally for other languages as well, also for Swedish, see example (493) and the discussion framing it), where the maximal dimension is usually described as LONG. When describing other types of houses, this description is “inherited”, to use Lang’s expression (Lang 1989:349). Further, *chowak* ‘long’ may describe a non-maximal extension when interacting with *táam* ‘deep’ and

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<sup>69</sup> Possibly, *avlänge* ‘oblonger’ could be used in certain casual contexts.

*kòoch* ‘wide’. *Táam* ‘deep’ may describe the maximal extension of the object, and *chowak* ‘long’ describes the maximal extension of the plane orthogonal to the axis described as *táam*.

There are no examples in the corpus where *lång* ‘long’ describes a non-maximal extension.<sup>70</sup> In the extended corpus one example was found where *lång* ‘long’ could be interpreted as not expressing the maximal extension:

(499) 2 medelstora auberginer 1 bit fem centimeter *lång* färsk *ingefärsrot*, skalad och riven (p98) ‘2 average-sized aubergines, 1 piece of fresh ginger, five centimetres long, peeled and grated’

A five-centimetre ginger root may look more like a big, irregular shape with no maximal extension, see Figure 33. On the other hand, the example concerns a measure phrase, a circumstance, which enhances the acceptance of a dimensional adjective, see Chapter 4 (Data and methodology). Since the noun is *rot* ‘root’, which refers to an object that normally has a maximal extension in the growth direction, the example is not so peculiar. Provided the dimension is not the maximal one, this is another example of the canonical maximal dimension taking precedence over the actual maximal one.

As has been pointed out in Spang-Hanssen (1990:307) as well as in Lang (1989:349) an object that forms part of a larger object need not be described according to its own proportions but according to those of the larger object. This phenomenon is one manifestation of the relationship between whole and part. Lang’s example is a narrow strip of fabric in which the strip is described in the same way as a larger piece, or the whole piece of the fabric.

Parts of objects need not be severed for the description to be separate. We may imagine a Manhattan setting, with a person walks on, say, 5<sup>th</sup> Avenue, next to a building. This is a skyscraper so its maximal dimension is its vertical one. Down at the ground level, pedestrians have no overall view of the huge building. A pedestrian may very well talk of a *lång byggnad* ‘long building’, meaning the horizontal dimension along the pavement, even if this dimension is not the maximal one when the whole building is taken into consideration, for example in a dialogue like the one in example (500).

(500) – Är vi aldrig framme vid den där affären? – Jo, den ligger i slutet av det här huset! – Ja, men det här huset är väldigt långt... (constructed) – Will we ever get to that store? – We will, it’s after this building! – OK, but this building is very long...’

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<sup>70</sup> Recall that there are no attached pictures of the objects described in the corpus. Therefore, I have relied on the assumption that the objects described have more or less conventional proportions, unless something in the description or in the contexts leads to another interpretation (as was the case with the *lång tallrik* ‘long plate’ in example (498)).

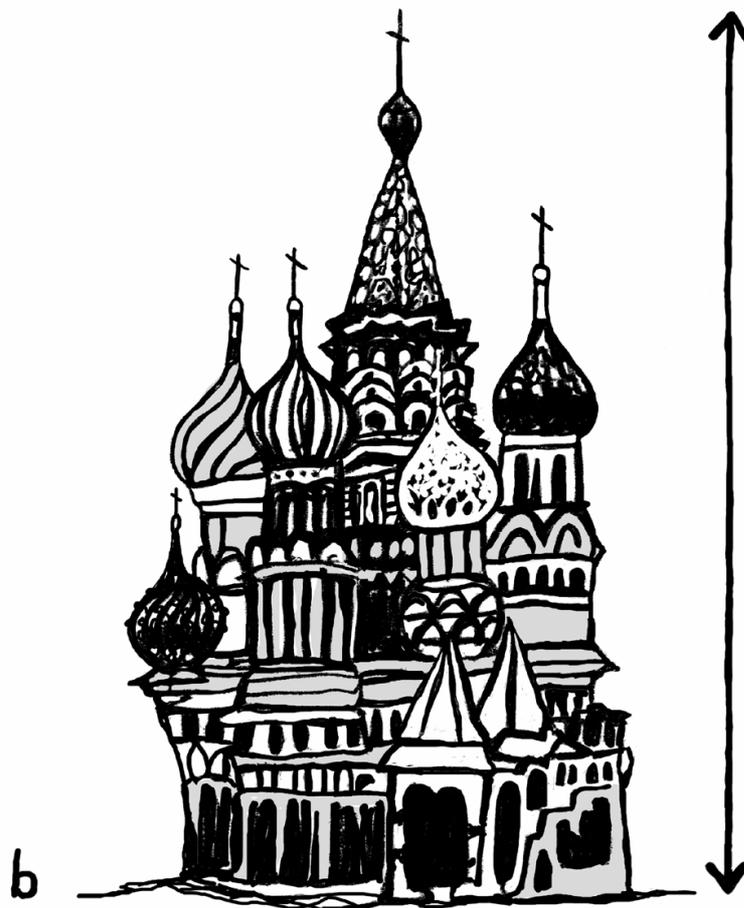
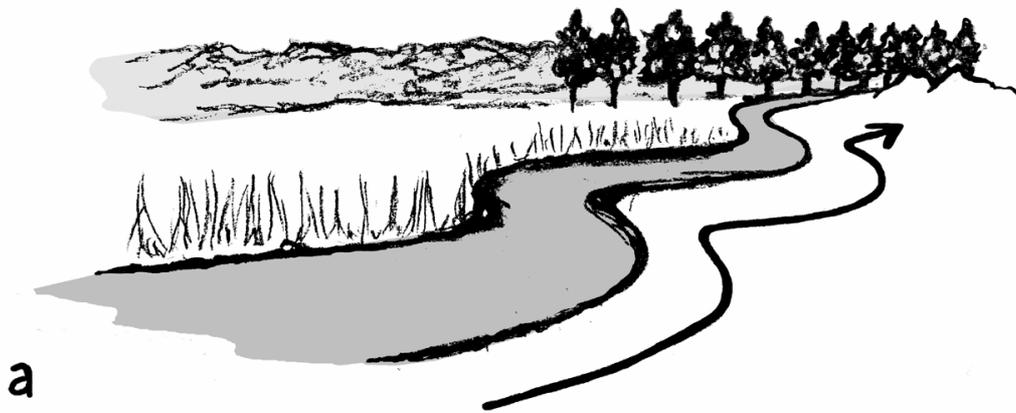
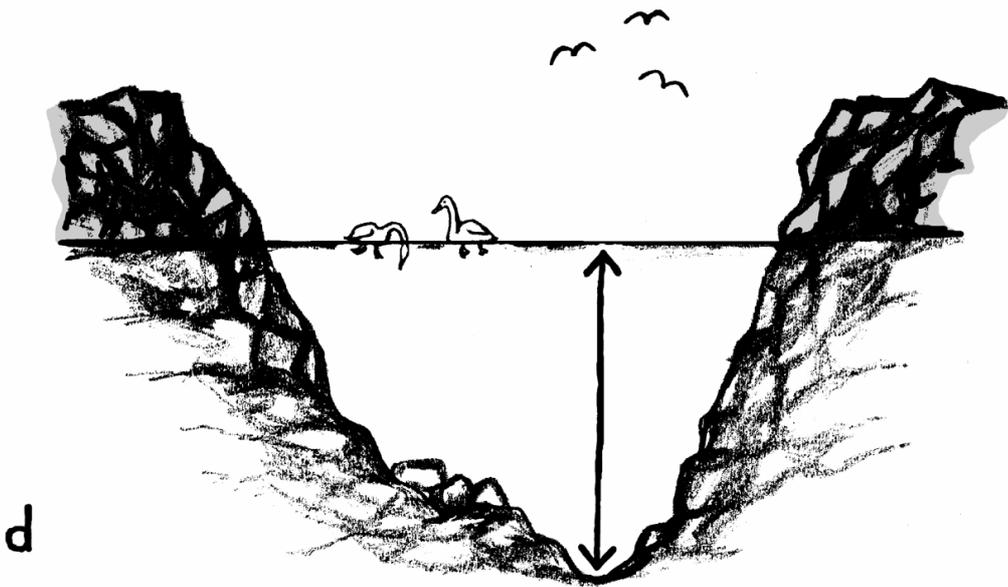


Figure 34 a, b, c, d. Road, castle, totem and lake. The arrow indicates *längd* 'length' in a, *höjd* 'height' in b, *bredd* 'width' in c, and *djup* 'depth' in d



Likewise, the non-maximal extension of a negative part in the ground may be described as *lång* ‘long’, especially if the maximal, vertical extension vanishes from sight or is difficult to assess in other ways.

LONG describes an extension along the object (cf. Vandeloise 1988). This makes LONG different from HIGH and WIDE and DEEP, since these adjectives describe a straight measurement (the shortest distance between two points), see Figure 34. *Lång* ‘long’ may describe necklaces, threads and tracks, where the dimension described follows a regular or irregular course:

- (501) *Banan ligger inte långt från Kennys hem och körs på en 1,5 miles lång oval.*  
 Den typ av ovalbanor Kenny gillar allra mest. (p98) ‘The track is not far from where Kenny lives and is an *oval* shape, 1.5 miles *long*. The type of oval track Kenny likes most of all.’

In (501), a track for racing cars is described. It extends for 1.5 miles and it forms an oval shape.

As was mentioned in section 11.2, Vandeloise suggests that the difference between the way the length of a poker and the length of a thread are evaluated can be explained by applying the rule of “potential passing”. He claims that a rigid linear object, like a poker, see Figure 31, section 11.2, has a length that is not evaluated along its actual shape but along a projection. The rule of “potential passing” thus provides an instrument that renders it superfluous to distinguish between objects whose function makes their length along the actual shape relevant (like a thread) and objects whose function depends on projection (like a poker, which functions as an extension of the hand in order not to burn the hand). However, I prefer to stay closer to the actual function. We may very well think of a blacksmith, calculating how much iron will be needed to forge a poker. In doing so its length will be assessed along the actual shape and this process cannot be accounted for by “potential passing”. Moreover, this point of view (taking the actual function into account) brings the analysis more into line with analyses of the other dimensional adjectives and with *bred* ‘broad/wide’ and *hög* ‘high/tall’ in particular.

### 11.4.3 Orientation

Some objects are oriented, some are not. In the related literature, bricks and boards (see among others Lang 1989) are cherished examples of objects which have no specific intended orientation. The maximal extension of such objects will be described as *lång* ‘long’. *Lång* ‘long’ will apply to the maximal extension of oriented objects, as long as it not preferably referred to as *hög* ‘high/tall’ (due to vertical orientation, as described in Chapter 5 on *hög* ‘high/tall’), *djup* ‘deep’ (due to containment and the orientation involved in the relationship content/container, as described in Chapter 10 on *djup* ‘deep’) or *bred* (due to a sideways orientation as described in Chapter

6 on *bred* ‘broad/wide’). SAOB suggests that *lång* ‘long’ is not only in opposition to *kort* ‘short’, but also to *hög* ‘high/tall’, *djup* ‘deep’ and *bred* ‘broad/wide’, a description which coincides well with my claims, although I do not phrase the relationship as opposition. Weydt and Schlieben-Lange (1998) and Lang (1989) point out that German *lang* ‘long’ lacks endpoints and direction. This is valid for Swedish *lång* ‘long’, too. *Lång* ‘long’ thus includes no information on orientation.

Adjectives for oriented objects are discussed below. First, the relationship between *lång* ‘long’ and *hög* ‘high/tall’ is discussed. Then the focus shifts to *lång* ‘long’ and *djup* ‘deep’ and finally *lång* ‘long’ and *bred* ‘broad/wide’ are treated. In addition, the section on *lång* ‘long’ and *bred* ‘broad/wide’ includes a more general discussion on the differences and similarities of the dimensional adjectives, concerning maximality and orientation. It concludes with a section on the presumed horizontality of *lång* ‘long’.

#### 11.4.3.1 The relationship of *lång* ‘long’ and *hög* ‘high/tall’

As mentioned in section 11.2, the greatest dimension will not be called LONG if it is vertical (Bierwisch 1967, Lyons 1977, Spang-Hanssen 1990, Lang 2001). The term “salient dimension” is used in Weydt and Schlieben-Lange (1998), which probably could be comprehended as the maximal dimension, and their idea is that the salient dimension may be called LONG if it is not vertical.

The observations referred to above seem valid for Swedish, too. Despite the “generosity” that the adjective *lång* ‘long’ shows towards different types of shapes (it seems as if it can describe nearly any shape except circles and spheres), there are many objects that are not described as *lång* ‘long’. A chair is not described as *lång* ‘long’ (*?en lång stol* ‘a long chair’), while a couch is (*en lång soffa* ‘a long couch’).<sup>71</sup> The main difference between a chair and a couch is that the couch is more extended in the left-right dimension. The chair, however, does have a maximal extension (the vertical one), which technically would make it eligible for *lång* ‘long’. A parallel situation is discerned regarding doors and windows. A door is not called *lång* ‘long’ (*?en lång dörr* ‘a long door’), while a window is (*ett långt fönster* ‘a long window’). A door has one maximal dimension, its vertical one, while a window, described as *lång* ‘long’, has its maximal dimension in the left-right one. In (502), a window of this type is described as *långt* ‘long’ and *lågt* ‘low’.

(502) Storstugan hade ett långt och lågt fönster med små rutor, och genom dessa föll skenet från badstugan in i rummet, lekte på golvet och förgyllde

<sup>71</sup> The description regarding *soffa* ‘couch’ and *fönster* ‘window’ is somewhat simplified. For a detailed analysis, see Chapter 6 on *bred* ‘broad/wide’.

björkriset. (B76–77) ‘The large living room had a long, low window with small panes through which the light from the bathroom shone into the room, played on the floor and gilded the birch twigs.’

*Soffa* ‘couch’, *dörr* ‘door’ and *fönster* ‘window’ all refer to objects with strong canonical orientation. They fulfill the requirements for the use of *hög* ‘high/tall’ so that this is used to refer to their vertical dimension. This shows that *hög* ‘high/tall’ takes precedence over *lång* ‘long’ for the vertical dimension, if all the requirements for the use of *hög* ‘high/tall’ (see further Chapter 5 for a specification) and for the use of *lång* ‘long’ are met.

For objects with no predominant canonical orientation, *hög* ‘high/tall’ and *lång* ‘long’ may alternate. In the extended corpus, there are a few examples of combinations of similar nouns with both *lång* ‘long’ and *hög* ‘high/tall’:

(503) Jag såg en *lång stege* vilken nådde ända upp i himmelen, och på den klättrade änglar uppför och nedför, fram och tillbaka. (B80–81) ‘I saw a long ladder reaching all the way to the heavens, and on it angels were climbing up and down, back and forth.’

(504) Nadia, som är den andra kvinnliga partnern i detta nummer, visar också en avancerad dolk mot svärd-balans på en *hög stege*. (parole) ‘Nadia, who is the other female partner in this number, also performs an advanced dagger-against-sword balancing act on a high ladder.’

(505) I de krokarna hittade barnbarnet Alina, 8 år, på måndagen en maskros, som mätte 65 centimeter – så *långt* var själva *skafet*. (parole) ‘Somewhere round there on Monday, her 8-year-old granddaughter, Alina, found a dandelion that measured 65 centimetres – that’s how long just the stem was.’

(506) Nybörjare bör välja en sko med *högt skaf* som ger stöd åt vristen. (parole) ‘Beginners should choose a boot with a high leg to support the ankle.’

In (503) a ladder is described as *lång* ‘long’ and in (504) as *hög* ‘high/tall’. In (503), *lång* ‘long’ describes a vertical dimension while in (504), it either describes a vertical dimension or a position. The example deals with circus artists performing on the trapeze. The ladder could either start at the ground or be placed high up. In (505), the stem of a dandelion is described as *lång* ‘long’ (*långt skaf*) and in (506), the same word is applied to the boot of a roller skate, which is described as *hög* ‘high/tall’ (*högt skaf*). Note that a measure phrase is used about the dandelion in (505), which enhances the acceptability. It is possible that the *skaf* ‘stem’ has been detached from the ground, but not necessary however, since there are other occurrences of *lång* ‘long’ in the corpus describing an organic object that has not been detached from the ground:

(507) Barnen står uppställda på baksidan av skolhuset mellan spretiga apelnrenar och *långt fjolårsgräs*. (B80–81) ‘The children line up at the back of the

schoolhouse, between straggly branches of apple trees and last year's long grass.'

*Hög* 'high/tall' is frequently used to describe shoes, boots and hats, whereas *lång* 'long' is frequent for dresses, skirts, trousers and coats. Dresses, skirts, trousers and coats hang, while shoes, boots and hats are made of the kind of material that enables them to defy gravity.

#### 11.4.3.2 The relationship of *lång* 'long' and *djup* 'deep'

As mentioned in section 11.2 it seems to be the case that if the greatest or the salient dimension of an object is better described by DEEP, this is afforded priority (Spang-Hanssen 1990, Weydt and Schlieben-Lange 1998).

There are instance where *lång* 'long' could be envisaged as describing an object, but where *djup* 'deep' has priority, as in *?en lång brunn* 'a long well' and *en djup brunn* 'a deep well'.

On the whole, however, the relationship of Swedish *lång* 'long' and *djup* 'deep' is less complicated than the relationship of *lång* 'long' and *hög* 'high/tall' because of the close association between *djup* 'deep' and the concept of containment. *Lång* 'long' highlights proportions, while *djup* 'deep' emphasises the container function. *Gräs* 'grass' was invoked in example (507), where it was described as *långt* 'long'. The same object may be described as *djupt* 'deep', as was shown in example (408), page 269, above. Remember that *djup* 'deep' mainly describes internal dimensions, while *lång* 'long' may describe both internal and external ones. In (507) the grass is probably described in terms of its outer measurements. In (508), another example is cited where the grass may be comprehended as having a container function, since feet, as well as stones and tree stumps, are in the grass.

(508) Fötterna trasslade i det långa gula gräset som dolde gropar och stenar och stubbar... (B80–81) 'Your feet got tangled in the long yellow grass which concealed holes and stones and stumps...'

In example (508), however, the container function is not invoked. The grass is not described as *djup* 'deep' but as *lång* 'long'. This is also justified by the fact that a person's feet are entangled in the grass.<sup>72</sup>

Describing a dimension as *djup* 'deep' or as *hög* 'high/tall' may block the use of *lång* 'long' even if the requirements for its use (i.e. maximality) are fulfilled. When these adjectives are used adverbially, the situation is different. It is possible to describe a person climbing down into a mine, for example, as climbing both *djupt ner* 'deep down' and *långt ner* 'far down'. Correspondingly, a person climbing upwards may climb *högt upp* 'high up'

<sup>72</sup> I thank Lennart Ryman for this observation.

as well as *långt upp* ‘far up’. Possibly, the adverbs *ner* ‘down’ and *upp* ‘up’ adequately encode information on orientation, making the expressions more or less equivalent.

Another possible explanation is that when *långt* ‘far’ denotes distance/position, it expresses a different relationship towards the adjectives *djup* ‘deep’ and *högt* ‘high’ which are also denoting distance/position, than when these adjectives denote extension.

#### 11.4.3.3 The relationship of *lång* ‘long’ and *bred* ‘broad/wide’

As mentioned in section 11.2, LONG is excluded if the largest dimension of an object has already been described as WIDE (Bierwisch 1967, Lyons 1977, Spang-Hanssen 1990, Lang 2001). Lang (1989) rather sees LONG as one of the options for describing the maximal dimension, with HIGH, DEEP and WIDE as other options but these are not ranked in priority as they belong to different schemata (LONG to IPS, Inherent Proportion Schema, and HIGH and DEEP to PPS, Primary Perceptual Space, while WIDE belongs to both) (Lang 1989:284, 349, 355).

If Swedish *bred* ‘broad/wide’ is used to describe a dimension in relation to a (canonical or actual) functional situation, then *bred* ‘broad/wide’ may describe the maximal extension. In such a description, *bred* ‘broad/wide’ takes precedence over *lång* ‘long’, if the requirements for the use of *bred* ‘broad/wide’ (see further Chapter 6 for specification of these requirements) and for the use of *lång* ‘long’ are met. An example would be *tangentbord* ‘computer keyboard’, where the maximal dimension is aligned with the sideways axis. The maximal dimension is called *bred* ‘broad/wide’, not *lång* ‘long’. However, if *bred* ‘broad/wide’ is used to describe a dimension in relation to the object’s proportions, then *lång* ‘long’ may be involved in the description. In this case, the maximal dimension is described as *lång* ‘long’ if it has not already been described as *hög* ‘high/tall’. This description is oriented only in terms of verticality, since the dimension described as *bred* ‘broad/wide’ is the smaller non-vertical dimension, see Chapter 6 on *bred* ‘broad/wide’. An example would be *skokartong* ‘shoe box’. The vertical extension is identified as *hög* ‘high/tall’, the maximal extension as *lång* ‘long’ and the smallest non-vertical extension is identified as *bred* ‘broad/wide’.

However, the semantics of *bred* ‘broad/wide’ and the semantics of *lång* ‘long’ taken together leave a gap in which there is no conventionalised way of describing an object with regard to proportions, if its maximal dimension is aligned with the vertical axis. A flat, upright toy-block may serve as an example, see Figure 35. The maximal extension of the toy block is called *hög* ‘high/tall’, because of its vertical orientation. The maximal non-vertical extension may be described as *bred* ‘broad/wide’ and the smaller extension may be called *tjock* ‘thick’. However, to use *bred* ‘broad/wide’ like this

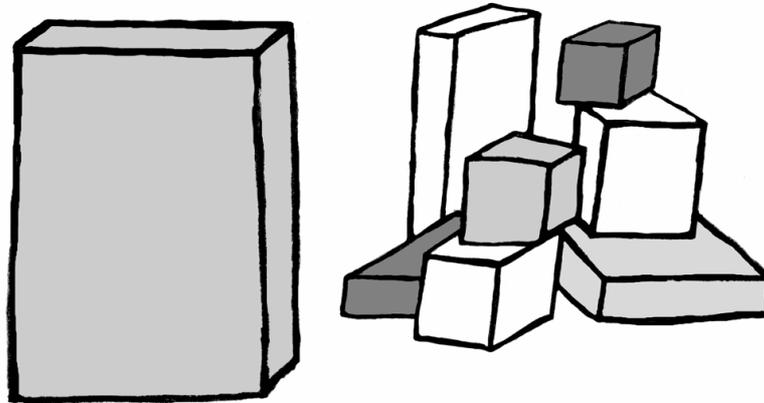


Figure 35. A flat, upright wooden toy block

would be to describe the block in terms of its orientation, ascribing as it were a front to it. It is not clear which adjectives would be used to describe the block as a whole without respect to its orientation in the horizontal plane (the object is already described with respect to vertical orientation). If the focus is on the horizontal plane, *lång* ‘long’ may be used in analogy to the way a very high building may be described when describing its base. The occurrence of gaps corroborates my model, which does not take combinations of adjectives as its starting-point, as do Bierwisch (1967), Lyons (1977), Lang (1989, 2001), Spang-Hanssen (1990), Stolz (1996), Weydt and Schlieben-Lange (1998), as well as Galeote et al. (1999) to some extent. Vandeloise (1988) also treats *long* and *wide* as parallel terms in a symmetrical system. As mentioned in Chapter 4 (Data and methodology), it is my claim that studying combinations of adjectives presupposes perceiving them parts of a pattern in which no area is left uncovered. Instead, I want to describe each adjective in its own right, and assemble the adjectives (as when three adjectives describe a three-dimensional object) in a later phase. I believe that the meaning of each adjective lacks symmetry in the sense that they all deliver a yes or no answer to a given set of parameters, as Greimas (1996) presumes in attributing plus or minus-signs to the values of laterality, horizontality etc.<sup>73</sup>

Lang (2001) claims that for languages, which he characterises as proportion/observer-mixed ones, the occurrence of HIGH in a description may

<sup>73</sup> Lang (1989) acknowledges gaps, too. In a figure a cuboid, having the same orientation and proportions as the upright toy block described above, gets three different descriptions, where one is *hoch*, ???, *breit*, ‘high, ???, broad/wide’, thus in accordance with my suggestions (Lang 1989:276).

cause, or at least permit, the maximal extension of an object to be labelled WIDE. I would not regard this phenomenon as a case of the vertical term (HIGH) inducing a left-right term (WIDE), but as a reasonable co-occurrence of terms, since many cuboid-shaped objects are not only oriented with respect to verticality but also with respect to the left-right axis. The situation is different for round objects like flagpoles and water towers, since these objects are often oriented only with respect to verticality.

As has been pointed out in Chapter 6 on *bred* ‘broad/wide’ and elsewhere in the text, *bred* ‘broad/wide’ has two related meanings, one associated with orientation, the other with proportions. There are many reasons for preference being given to one description rather than another. In some situations the focus is on orientation while in others it is on proportions. For some objects, like a *soffa* ‘couch’, both descriptions may exist in parallel (*lång soff*a ‘long couch’ referring to the left-right, maximal dimension, *bred soff*a ‘wide couch’, referring to the same left-right, maximal dimension), while other objects, like *tangentbord* ‘computer keyboard’ cited above, can only be described in terms of their left-right orientation (also see section 6.4.7 in Chapter 6 on *bred* ‘broad/wide’). If a *tangentbord* ‘computer keyboard’ were to be described as *lång* ‘long’, it would need to extend a very great deal (perhaps some meters) on each side to make the utterance acceptable.<sup>74</sup> My claim is that the strong canonical functional situation for these objects that belong to a familiar domestic or office setting in which they are arranged, for convenience, in front of the user blocks any un-oriented interpretation.

Similarly, Lang (1989) cites the description of a seed drill as *Die Drillmaschine ist breiter als lang* ‘The seed drill is wider than (it is) long’ (Lang 1989:349). His explanation for this exception is that the seed drill is an untypical vehicle but that typical vehicles have their maximal extension in the front-back axis. The case of the seed drill whose maximal extension is described as *breit* ‘broad/wide’ could be viewed as preferring to describe the object on the basis of its functional situation rather than its proportions.

#### 11.4.3.4 *Lång* ‘long’ and the front-back axis

As noted in section 11.1, the dictionaries NEO and SAOB connect *lång* ‘long’ to horizontality in particular. Several earlier studies on dimensional adjectives claim that LONG describes an extension along the horizontal axis

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<sup>74</sup> For people suffering from repetitive strain injury caused by working with computers, keyboards with a small left-right extension are available. These are referred to as *små tangentbord* ‘small keyboards’, not as *korta* ‘short’. *Smal* ‘narrow’ is ruled out because as claimed in Chapter 9 on *smal* ‘narrow’, a dimension can only be described as *smal* ‘narrow’ if another dimension is equally great or greater. Here, *bred* ‘broad/wide’ and *liten* ‘small’ are antonyms.

(Greimas 1996, Fillmore 1997, Spang-Hanssen 1990, Vandeloise 1988). This axis need not be the maximal one.<sup>75</sup>

I would like to suggest that *lång* ‘long’ is not connected to non-verticality or to horizontality. *Lång* ‘long’ provides no information on orientation. However, since verticality in the upward direction is mainly expressed by *hög* ‘high/tall’, and since an appropriate container has a certain orientation if it is to hold its contents so that verticality in the downwards direction may be expressed by *djup* ‘deep’ (provided the pertinent object has container qualities), and since the left-right axis is expressed by *bred* ‘broad/wide’, the horizontal dimension (in the front-back axis) is often referred to by *lång* ‘long’. Furthermore, the force of gravity requires the greatest surface of non-oriented objects to be parallel to the earth and enforces a specific orientation, namely along the earth. The minimal dimension therefore becomes vertical, and the maximal dimension non-vertical (see further discussion on this in Chapter 6 on *bred* ‘broad/wide’). These facts taken together often, but not always, result in the use of *lång* ‘long’, to describe as a dimension along the front-back axis.

#### 11.4.4 Spatial and temporal use

Motion involves space and time. *Lång* ‘long’ is able to express both a spatial dimension and a temporal dimension. In (509), a spatial use of *lång* ‘long’ is shown.

(509) Den gamla vägen mellan Kristianstad och Fjälkinge är lite *längre*, men den är mycket vackrare. (constructed) ‘The old road from Kristianstad is a little longer, but it is much more beautiful.’

If we imagine someone going by car on the road from Kristianstad to Fjälkinge, a temporal dimension will be involved, from the time the car starts in Kristianstad to the time the car arrives in Fjälkinge. An utterance such as (510) may refer to the temporal dimension.

(510) Den gamla vägen är fem minuter *längre*, men den är mycket vackrare. (constructed) ‘The old road takes five minutes longer, but it is much more beautiful.’

In (510), *lång* ‘long’ refers to the duration of the journey. The longer spatial extension corresponds to a longer temporal duration of the journey. Another example, this time from the corpus, is shown in (511).

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<sup>75</sup> As mentioned in Chapter 4, I regard the horizontal axes as parallel to the ground. I do not separate between two horizontally oriented axes, of which one goes along the left-right axis (often called the lateral axis) and the other goes along the front-back axis (often called the horizontal axis). See Frawley (1992) where these terms are brought up.

(511) Tyckte att *vägen* till det regionala sjukhuset var för *lång* (fyra timmar) med en röst som Mirandas – säger att det bara kan ha varit hennes starka vilja som klarar henne igenom så här långt. (B76–77) ‘Thought it took too long to get to the regional hospital (four hours) with a voice like Miranda’s – says it can only have been her strong will that gets her through this far.’

In (511), the object *väg* ‘way’ is basically a concrete entity, which has spatial extension. The object is described as being *fyra timmar lång* ‘four hours long’, which can be interpreted as a spatial, concrete object being described by a temporal expression (in that it is so long that it takes four hours to travel it).

Texts are other objects to which both a spatial and a temporal dimension may be attributed. A text on a sheet of paper has certain spatial dimensions. A text which includes letters which fill most of a page is considered *längre* ‘longer’ than a text which only fills a fraction of it. Further, a text, which has greater spatial extent takes (approximately, depending on the degree of complexity) more time to read than a text of a smaller spatial extent. Written texts thus both have both spatial and temporal dimensions, while spoken texts only have temporal (the time it takes to speak/listen to the text).

In the dictionaries, a certain ambiguity concerning texts can be discerned. One dictionary (Nusvensk ordbok) separates spatial textual entities, such as *rader* ‘lines’, *meningar* ‘sentences’ and *stycken* ‘paragraphs’ from temporal textual entities, such as *predikan* ‘sermon’, *inledning* ‘introduction’ and *uppsats* ‘essay’. Another dictionary (NEO) only reports on a temporal entity, exemplified by *predikan* ‘sermon’. Illustrerad svensk ordbok does not state whether the uses are spatial or temporal, but simply reports on the examples *yttrande* ‘utterance’, *framställning* ‘presentation’, *tankegång* ‘train of thought’ and *resonemang* ‘reasoning’. SAOB does not treat spoken utterances differently from written texts. Since spoken text is considered abstract (an entity that takes place), I interpret this as the written text being considered abstract, too. As is pointed out in Willners (2001), nouns referring to text, such as *book* and *newspaper* are inherently ambiguous, and only the context can help decide whether the noun should be classified as a concrete object or as an abstraction (Willners 2001:23). Conceptualising the text as a concrete object would correspond to perceiving it as consisting of the sheet(s) of paper on which it is written (the magazine, book etc.), or, possibly, as the accumulated number of lines (probably this assumption is more accurate for shorter texts).<sup>76</sup> Conceptualised as an abstract entity, on the other hand, it would be perceived instead as a text expressing thoughts or ideas and which may have duration in time, at least when read aloud.

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<sup>76</sup> Texts on a computer screen or on signs are probably comprehended in this way, if regarded as a concrete objects.

Different kinds of texts are described as *lång* ‘long’ in the corpus, among them *brev* ‘letter’, *artikel* ‘article’, *dikt* ‘poem’, *uppsats* ‘paper’, *anmälan* ‘review’, *inläga* ‘petition’, and *rapport* ‘report’. In a few cases, the spatial extension is described (and not the number of pages). This can be seen in (512) and (513). Possibly, example (514) can also be included here.

- (512) Ville han sätta den i fråga, då måste han skicka med dem *långa stenciler* hem. (B76–77) ‘If he wanted to question it, then he had to send long handouts home with them.’
- (513) Tidningarna skrev *långa spalter* med fotografi om dem. (B80–81) ‘The newspapers wrote long columns, including a photograph, about them.’
- (514) Nordqvist klippte ut en *lång dikt* ur tidningen och gav de klipskaste gossarna varsin vers att lära sig utantill. (B76–77) ‘Nordqvist cut out a long poem from the newspaper and gave the brightest boys one verse each to learn by heart.’

The *stencil* ‘handout’ of (512) and the *spalt* ‘column’ of (513) can be regarded as concrete objects whose length is or could be measured in centimetres. The *dikt* ‘poem’ of (514) could, if printed in one column, be described as *lång* ‘long’ in terms of its spatial dimensions but the context rather hints that it is the length of the literary work that is considered. For other texts, I would suggest that the text should be seen as an abstract entity (even if physically printed on paper etc.) and the length of the text is then rather a measure of its extent, see (515). Instead, the abstract entity has duration in time (the time it takes to read it or to listen to it).

- (515) Jag har tagit ut några av de i mitt tycke bästa stroferna ur dikten, det är en ganska *lång ballad* som lider av viss ojämnhet. (B80–81) ‘I have selected some of the best stanzas from the poem, to my mind, it’s a rather long ballad that suffers from a certain unevenness.’

In some cases, the adjective *lång* ‘long’ is combined with a measure phrase, as in (516). I would regard the *uppsats* ‘paper’ an abstract entity, represented however by physical materials (sheets of paper, ink etc.). In this case, the stress is on the physical. Therefore, the use of *lång* ‘long’ in (516) constitutes a borderline case between the abstract and the concrete. Compare with example (517), where the physical materials are probably not stressed. In example (517), *liten* ‘little’ describes an abstract entity.

- (516) Min *uppsats* blev 51 sidor *lång*, litteraturförteckningen oräknad. (B80–81) ‘My paper ended up being 51 pages long, excluding the bibliography.’
- (517) “Förakta inte den dåliga musiken”, skriver Marcel Proust i en berömd *liten uppsats*. (B80–81) “Do not despise the bad music”, writes Marcel Proust in a famous little essay.’

The adjective *liten* ‘little’ is the antonym of *stor* ‘big’. The example was chosen because it refers to the same object (*uppsats* ‘paper’), there being no occurrences of *kort uppsats* ‘short paper’ in the corpus. *Kort* ‘short’ seems

to stress the concreteness of the object (*uppsats* ‘paper’) while *liten* ‘small’ rather stresses its abstractness. If the physical dimensions of an *uppsats* ‘paper’ were referred to as *liten* ‘small’, it would not only consist of a small number of pages but the format of each sheet would also be smaller.<sup>77</sup> Since the size of sheets is rather standardised, at least for formal texts such as papers (as compared to children’s drawings, for instance), *liten uppsats* ‘little thesis’ should mainly refer to an abstract entity.

Some of the dictionaries (SAOB, NEO, and Illustrerad svensk ordbok) take up a specific meaning of *lång* where the adjective is used to describe a movement that extends over a great distance, such as *en lång resa* ‘a long trip’ (SAOB), *en lång promenad* ‘a long walk’ (Illustrerad svensk ordbok). I have regarded these uses as strictly spatial (even though they may have temporal implications as a result) and as such they have been unproblematic.

Finally, there are cases in which *lång* ‘long’ clearly has a temporal sense:

(518) Det blev *långa arbetsdagar*. (B80–81) ‘There were long working-days.’

In example (518), the object *arbetsdag* ‘working-day’ is an abstract entity that only has temporal duration and no spatial extension. The use of *lång* ‘long’ is clearly temporal. Uses of this kind are not part of my study.

## 11.5 *Kort* ‘short’ as the antonym of *lång* ‘long’

*Kort* ‘short’ is commonly regarded as the antonym of *lång* ‘long’. It can be assumed that the semantics of *kort* ‘short’ are rather similar to the semantics of *lång* ‘long’, with the exception that while the marked sense of *lång* ‘long’ describes a dimension that is large in relation to a certain norm, *kort* ‘short’ describes a dimension which is not large in relation to the norm. This assumption justifies patterning the examination of *kort* ‘short’ closely on the study of *lång* ‘long’.

## 11.6 *Kort* ‘short’ in the dictionaries

SAOB discriminates between several main meanings of *kort* ‘short’, of which the first and the fourth are of interest for this study. The first concerns spatial extension and is explained as having small extension in length. *Lång* ‘long’ is considered the antonym. One of the examples is *kort*

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<sup>77</sup> Lang (1989) distinguishes between global interpretation and restricted interpretation of German *groß* ‘big/large’ and *klein* ‘small/little’, the former interpretation involving three dimensions and the latter two. In the latter case, the smallest dimension is omitted and the description refers rather to a surface (Lang 1989:396–397). Possibly, a concrete interpretation of *en liten uppsats* ‘a small paper’ may denote the size of the pages only, omitting the number of pages.

*hår* ‘short hair’.<sup>78</sup> The fourth main meaning deals with oral or written presentation, such as *korta tal* ‘short speeches’. The first meaning has several sub-senses, of which the first and the second are not of primary interest to me as they deal with the human body and the dimensions of pieces of clothing, two domains that mainly have been excluded from the study, see Chapter 4 (Data and methodology). Among the remaining sub-senses, one treats distances, such as *den raka vägen är den kortaste* ‘the straight way is the shortest’ and *på kort avstånd* ‘at a short distance’. As argued above, it is not always easy to determine whether such entities are abstract or concrete.

Nusvensk ordbok gives several examples of spatial, non-metaphorical uses. Among them are *halmen blir kort i år* ‘the hay will be short this year’, *korta rader* ‘short lines’, *gå kortaste vägen* ‘take the shortest route’, and *små, korta steg* ‘little, short steps’.

NEO discerns four main meanings, among which the spatial one constitutes the first one. The spatial meaning is described as having no great extension in the length dimension. There are four sub-meanings, two of them interesting in this context. The first deals with texts and is said to be more abstract. The second sub-sense is described as referring to what involves a small distance, such as *en kort promenad* ‘a short walk’, and it has the remark ‘extended’.

Illustrerad svensk ordbok distinguishes a spatial meaning from a temporal one. In addition, a third meaning is given with the synonyms *knapp* ‘scarce’, *kortfattad* ‘brief’, where a *predikan* ‘sermon’ is described as *kort* ‘short’.

Bonniers svenska ordbok distinguishes between spatial and temporal meaning.

## 11.7 Related research in the past on SHORT

Most of the studies concerning LONG do not discuss the antonym of LONG (SHORT). The semantic description either explicitly covers both antonyms, without touching upon the matter of possible differences between the two units (Greimas 1966, Bierwisch 1967, Clark 1973, Wienold and Rohmer 1997, Geckeler 1997, Weydt and Schlieben-Lange 1998, Linde-Usiekiewicz 2000, 2002), or antonyms are not mentioned at all (Fillmore 1997, Lyons 1977, Vandeloise 1988, Spang-Hanssen 1990, Galeote et al 1999, Lang 2001). Lang (1989), although other antonym pairs are discussed, disregards the assumedly unproblematic case of *lang–kurz* ‘long–short’. Stolz (1996) assigns *kòom* ‘short’ the same semantic description as *chowak* ‘long’

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<sup>78</sup> Between the first main meaning and the fourth main meaning, the main temporal meaning can be found, such as *kort stund* ‘short while’, and the main meaning of something happening at rapid intervals, such as *kort galopp* ‘short gallop’.

apart from pointing out that *kòm* ‘short’ has a small value on a scale while *chowak* ‘long’ has a large one (Stolz 1996:233). Lafrenz (1983) is an exception and discusses German *kurz* ‘short’ in more detail. According to the study, objects with one or two main dimensions may be referred to as *kurz* ‘short’, as in *eine kurze Stange* ‘a short pole’ and *ein kurzes Bett* ‘a short bed’. Objects with three main dimensions are normally not referred to as *kurz* ‘short’. The nouns *Sofa* ‘couch’ and *Haus* ‘house’ are not compatible with *kurz* ‘short’. The reason is that in the relation between *Länge* ‘length’ and *Breite* ‘width’, the dimension referred to as *Länge* ‘length’ must exceed and never be less than the dimension referred to as *Breite* ‘width’ (Lafrenz 1983:74–78). Likewise, Rakhilina (2000) points out that since Russian *korotkij* ‘short’ requires an oblong shape, any object that may be referred to as *dlinnyj* ‘long’, such as aeroplane and mountain ridge, cannot be referred to as *korotkij* ‘short’.

## 11.8 Claims concerning *kort* ‘short’

*Kort* ‘short’ can be described as a simple category, having prototypical and peripheral uses. *Kort* ‘short’:

- Refers to a maximal extension and indicates no great extent in relation to a certain norm.
- Refers to inner or outer measurements.
- Refers to an extension that is not already described by another dimensional adjective with regard to orientation and/or direction.

*Kort* ‘short’ does not apply to the same range of objects as *lång* ‘long’, since in many cases the supposedly maximal extension is not easily discerned if it is limited.

The relationship between *kort* ‘short’, *smal* ‘narrow/thin’, *låg* ‘low’ and *grund* ‘shallow’ on the one hand is different from the relationship between *lång* ‘long’, *bred* ‘broad/wide’, *hög* ‘high/tall’ and *djup* ‘deep’ on the other hand.

## 11.9 Results and discussion on *kort* ‘short’

I will discuss *kort* ‘short’ in terms of shape and orientation. Where function is concerned it can briefly be noted that quite diverse functions can be discerned for the objects described as *kort* ‘short’. This diversity corresponds to the functions of objects described as *lång* ‘long’.

### 11.9.1 Shape

*Kort* ‘short’ describes objects with a maximal extension and therefore cannot apply to objects with no extension that stands out from the others as

the maximal one. For this reason, not all sorts of objects, that are described as *lång* ‘long’, can be described as *kort* ‘short’ (see Lafrenz 1983:74–75, 78 and Rakhilina 2000). For many objects, *liten* ‘small’ is the preferred description if the extension is minimal rather than large.

In the corpus, an example concerning a box containing mint leaves of the After Eight type can be found, see (519). Different size boxes are available in the shops but normally only the length differs while the other dimensions are constant.

(519) Karin får en *ask* After Eight – den *långa* – och farmodern har gått och lagt sig. (B76–77) ‘Karin gets a box of After Eights – a long one – and granny has gone to bed.’

If another After Eight box with a shorter maximal extension were described, it would probably not be called *kort* ‘short’, but rather *liten* ‘small’.

Similarly, there are other objects of more or less standardised dimensions for which an increase or decrease of one of its dimensions would justify description as *lång* ‘long’, but not as *kort* ‘short’. In the corpus, the noun *balkong* ‘balcony’ combines with *lång* ‘long’, but not with *kort* ‘short’. Instead, *liten* ‘small’ is used. Further, *fönster* ‘window’ combines with *lång* ‘long’, but not with *kort* ‘short’. To express no great extension in the horizontal dimension, *liten* ‘small’ is used. The collocation *?kort fönster* ‘short window’ is very odd, whereas *kort balkong* ‘short balcony’ (at least to me) evokes an idea about a balcony used as a path between two doors, where the walk was expected to have a longer (spatial and/or temporal) extension.

For other objects where after the maximal extension has been reduced it still remains the maximal one, negation of a collocation including *lång* ‘long’ and a noun results in a collocation of *kort* ‘short’ and the same noun. This is shown in the following examples where both collocations of each example have been taken from the corpus: *lång stege* ‘long ladder’ – *kort stege* ‘short ladder’, *lång käpp* ‘long cane’ – *kort käpp* ‘short cane’, *lång skugga* ‘long shadow’ – *kort skugga* ‘short shadow’. It can be assumed that a longer ladder is also wider than a shorter ladder, to remain stable and similarly a longer cane is probably thicker than a shorter one. The collocation of the last example, *kort skugga* ‘short shadow’, sounds rather odd. It can be noted that this is another case of an object, this time a two-dimensional surface, where only one dimension is reduced while the other is more or less constant.

There are a few occurrences in the corpus where *kort* ‘short’ possibly describes a non-maximal extension. The first concerns *vågor* ‘waves’. *Vågor* ‘waves’ can be described as *långa* ‘long’:

(520) Han huttrade till, det blåste bra och älvens *långa vågor* dånade tungt och regelbundet mot strandkanten som om det hade varit vid havet. (B76–77)

‘He shivered, there was good wind and the long waves of the river thundered heavily and regularly against the edge of the beach as if it had been the sea.’

Correspondingly, *vågor* ‘waves’ can be described as *korta* ‘short’:

(521) Längre ut var vattnet blått med *korta* toppiga *vågor* som glittrade i solen och här och var. (B76–77) ‘Further out, the water was blue with short pointy waves glittering in the sun and here and there.’

There could well be some discussion of what dimension is referred to where the waves are concerned. Normally, the maximal dimension of a wave is the one parallel to the edge of the water. On the other hand, the motion of a wave is in a forward direction, which is normally orthogonal to the edge of the water. For *långa vågor* ‘long waves’, it seems reasonable to assume that the dimension referred to is the maximal one. This interpretation of the expression *kort våg* ‘short wave’ however, seems more uncertain. In some cases concerning moving objects, the front-back axis is identified as the LENGTH (Vandeloise 1988). It cannot be ruled out that the adjective refers to the front-back axis in the case of (521). Whether that dimension is the maximal one is unclear. Waves can differ in appearance and moreover, change shapes as they move. To sum up, *vågor* ‘waves’ can be described as *höga* ‘high’, but hardly as *låga* ‘low’, as *djupa* ‘deep’ but hardly as *grunda* ‘shallow’, as *långa* ‘long’, as *korta* ‘short’, as *tunna* ‘thin’ but not as *tjocka* ‘thick’.<sup>79</sup>

Another interesting example from the corpus concerns a two-dimensional object, in this case a *synfält* ‘field of vision’:

(522) Någonstans inne i planteringen var en sårad varg, någonstans på ett område på flera hundra tunnland skulle de finna den i ett nästan ogenomträngligt mörker. Men det var en duell. Den hade bara börjat med det första skottet på heden, och nu hade vargen fördel. Den hade natten och ett *kort synfält* på sin sida. (B80–81) ‘Somewhere within the plantation was a wounded wolf, somewhere in an area of several hundred acres they would find it in the almost impenetrable darkness. But it was a duel. It had merely started with the first shot on the heath, and now the wolf had the upper hand. It had the night and a short field of vision on its side.’

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<sup>79</sup> If a limited vertical extension is described, the preferred manner is probably as in the corpus example below:

- (2) Blåsten piskade upp *vågor* som ibland var djupa, ibland bara några centimeter höga, en ständigt växlande yta som gjorde henne yr. (B76–77) ‘The wind whipped the water, creating waves that sometimes were deep, sometimes only some centimetres high, a constantly changing surface that made her dizzy.’

The object *synfält* ‘field of vision’ is described as *kort* ‘short’, probably due to darkness. It cannot be ruled out that the line of sight in the front-back axis is smaller than the extension in the left-right axis, thereby describing a non-maximal dimension. A *synfält* ‘field of vision’ may be described as *djupt* ‘deep’ in the front-back axis (concerning film, the term *djupfokus* ‘deep focus’ refers to a focal length which enables an image to remain sharp as the distance from the camera increases), but hardly as *grunt* ‘shallow’. Possibly, the adjective *kort* ‘short’ is the antonym of *djup* ‘deep’ concerning *synfält* ‘field of vision’, since *långt synfält* ‘long field of vision’ sounds rather odd.

### 11.9.2 Orientation

As noted earlier in this chapter, the adjectives *hög* ‘high/tall’, *bred* ‘broad/wide’ and *djup* ‘deep’ may take precedence over *lång* ‘long’ in describing an object’s maximal side and so exclude it from the description. The antonyms of *hög* ‘high/tall’, *bred* ‘broad/wide’ and *djup* ‘deep’ do not rule out *kort* ‘short’ in the same way. *Smal* ‘narrow/thin’, the antonym of *bred* ‘broad/wide’, cannot describe the maximal dimension of an object. Therefore, a limited extension of the maximal dimension may not be expressed using *smal* ‘narrow/thin’ (see Chapter 9 on *smal* ‘narrow/thin’). Likewise, *låg* ‘low’, antonym of *hög* ‘high/tall’, is averse to describing the vertical dimension if that dimension is the maximal one, although such descriptions exist (see Chapter 5 on *hög* ‘high/tall’ and *låg* ‘low’). Furthermore, it seems as if *grund* ‘shallow’, an antonym of *djup* ‘deep’, describes shapes where the bottom or inside of the back has a greater diameter or area than the extension from the top or front to the bottom or the inside of the back (see Chapter 10 on *djup* ‘deep’ and *grund* ‘shallow’). This means that *grund* ‘shallow’ seldom describes maximal extension, and so does not compete with *kort* ‘short’.

*Kort* ‘short’ does not include information on orientation. *Kort* ‘short’ may become the antonym of the adjectives *hög* ‘high/tall’, *bred* ‘broad/wide’, and *djup* ‘deep’ in cases where the limited extension is the maximal one, however, the information about orientation encoded by the positive antonym is lost. Examples of this are *hög flaggstång* ‘high flagpole’ – *kort flaggstång* ‘short flagpole’, and *bred soff*a ‘wide couch’ – *kort soff*a/liten *soffa* ‘short couch/small couch’, as well as *djupt synfält* ‘deep field of vision’ – *kort synfält* ‘short field of vision’.

The pair of antonyms *hög–kort* ‘high/tall–short’ is the least controversial. It corresponds roughly to the English antonym pair *tall–short*. When pairing *bred* ‘broad/wide’ with *kort* ‘short’, the perspective changes, from identifying the two non-vertical dimensions as *bred–smal* ‘broad/wide–narrow’ and *djup–grund* ‘deep–shallow’ to identifying the same dimensions as *lång–kort* ‘long–short’ and *bred–smal* ‘broad/wide–narrow’. If the shape

of the horizontal surface of such an object is closer to a square than a rectangle, the object will be described as *stor–liten* ‘big–small’ rather than *lång–kort* ‘long–short’ because of shape criteria, see section 11.9.1. If the left-right dimension of a couch becomes very minimal, the horizontal surface may be close to a square and the couch can no longer be described as *kort* ‘short’. Finally, pairing *djup* ‘deep’ with *kort* ‘short’ is only possible when the container function of the object is weakened, while it sounds rather odd to call a well or a mine *kort* ‘short’.

### 11.10 Summary of *lång* ‘long’ and *kort* ‘short’

The spatial sense of *lång* ‘long’ can be described as a simple category, in which some uses are prototypical and some peripheral. The simple category can be described as a cluster of many prototypical members in the centre with a few peripheral members. *Lång väg* ‘long road’, *lång stång* ‘long pole’ and *lång sträcka* ‘long way’ are prototypical uses. *Lång* ‘long’ refers to the maximal extension of the object. Peripheral uses include *lång* ‘long’ describing a non-maximal extension of an object, such as describing a very wide double bed, where *lång* ‘long’ regards the canonical maximal, but not the actual maximal extension. Furthermore uses such as *en lång zeppelinare* ‘a long Zeppelin’ are peripheral. An oval object may be described as *lång* ‘long’ but an egg of approximately the same shape, is not, presumably since it does not move.

Furthermore, it is suggested that *lång* ‘long’ has the status of a “default” adjective and describes an object if *hög* ‘high/tall’, *bred* ‘broad/wide’ or *djup* ‘deep’ are not preferred. *Lång* ‘long’ includes no information on orientation or direction. *Lång* ‘long’ is not specifically associated to the front-back axis, even though the interaction between the proportions of an object described as *lång* ‘long’ and gravity will mean that *lång* ‘long’ often, but not always, describes a dimension along a front-back, or at least a horizontal, axis.

*Kort* ‘short’ is the preferred antonym of *lång* ‘long’. Like *lång* ‘long’, it can be described as a simple category. If it is not easy to see that an extension is maximal, *kort* ‘short’ is not used. Instead, *liten* ‘small’ describes the object. In other cases, *kort* ‘short’ is the antonym of *hög* ‘tall’, as for *flaggstång* ‘flagpole’. *Kort* ‘short’ may also be the antonym of *bred* ‘broad/wide’, as for *soffa* ‘couch’, or the antonym of *djup* ‘deep’, as in *synfält* ‘vision field’.

## 12 Concluding remarks

Studying the Swedish dimensional adjectives has revealed a complex and intriguing area. In this chapter I would like to make some concluding remarks on specific issues. First I would like to offer a picture of the role played by related research in the past for my study. Secondly, I want to discuss whether my results support the theoretical assumptions of cognitive linguistics. Thirdly, I would like to present an evaluation of the data as well as the methodology in relation to my intentions. I will conclude by drawing attention to what I consider to be the main contribution of my work. For a summary concerning the semantics of each dimensional adjective, the reader is referred to the summaries that can be found at the end of Chapter 5–11. Swedish readers may also address Chapter 13, which is a summary in Swedish, in which specific results regarding each adjective are accounted for.

Related research from various areas has been considered. The main focus has been on research on dimensional adjectives. The different underlying theoretical assumptions in the separate studies have not presented obstacles of the kind I had expected initially when my fear was that it would only be possible to avail myself of results emerging from studies that invoke the same framework as mine. On the contrary, specific results from separate studies, sometimes based on opposing assumptions, have proven very useful to me in the process of formulating hypotheses. In the end, it has been astonishing to see how close some studies, such as Clark (1973) and Lang (1989), each very fundamental in its own tradition, actually are. Furthermore, the related research emerges from diverse disciplines. The majority of the studies were written within linguistics, while Goy (2002) is a study within artificial intelligence, and Stolz (1996) belongs to anthropology.

It has been possible to confirm that results concerning German and English dimensional adjectives are valid for Swedish as well. Among other languages, Italian (Goy 2002), Russian (Rakhilina 2000) and Polish (Linde-Usiekniewicz 2000, 2002) turn out to be quite similar to Swedish. My contribution to international research on dimensional adjectives should not be considered as restricted to having provided such a confirmation. Rather, the results concerning other languages have formed a starting-point for a deeper and more detailed analysis for the Swedish adjectives. In their turn, my results may provide new hypotheses for future studies on European dimensional adjectives.

Research on spatial relations and spatiality in language has also been considered. Here, research on vision and cognition, originating from

research fields outside linguistics, can be noted (Hoffman and Richards 1984). Among studies within the field of linguistics, a discussion on the way places are perceived and talked about in terms of one, two or three-dimensionality has played an important role for my study (Herskovits 1986) together with suggestions on how geometric configurations correspond to (idealised) counterparts in the real world (Jackendoff and Landau 1991). In addition, research exploring the notions of verticality (Ekberg 1991, Strzelecka 2003), container (Vandeloise 1991, Sinha and Jensen de López 2000, Strzelecka 2003) and balance (Jakobsson 1996) have been taken into account. Most of these studies make references to studies on metaphors (Lakoff and Johnson 1980, Johnson 1987, Lakoff 1987). Although my work has not primarily concerned metaphors, the works by Lakoff and Johnson, together with Langacker (1987, 1997) have formed the foundations for cognitive linguistics and hence have been of utter importance for my work, too, in terms of underlying theoretical assumptions and methodology.

The diversity of the related research mirrors the fact that the study of dimensional adjectives touches upon very varied fields, ranging from psychology (where cognition originates) to mathematics (where geometric figures belong). Hopefully this has taught me to keep an open mind on ideas from unconventional sources.

My own study is set within the framework of cognitive linguistics. It is my belief that my results support the theoretical assumptions underlying that framework. My study shows that pre-conceptual, pre-linguistic bodily experiences constitute part of the semantics of the dimensional adjectives. The kind of experiences that give rise to basic notions are grasping (*tjock* 'thick'), experiencing gravity (*hög* 'high/tall'), the container concept (*djup* 'deep', *trång* 'narrow'), the concept of path (*bred* 'broad/wide', *smal* 'narrow/thin', *trång* 'narrow'), the concept of surface (*bred* 'broad/wide', *vid* 'broad', *smal* 'narrow/thin') and the concept of object (all adjectives). Within cognitive linguistics it is argued that these notions are basic (irreducible) and fundamental for our understanding of language and the world. Vision, which is probably the most developed of our senses, is important for most of the adjectives, where limitation within the vision field (*bred* 'broad/wide'), prominence in the vision field (*hög* 'high/tall'), and lack of restriction within the vision field (*vid* 'broad') can be mentioned in particular.

Within cognitive linguistics, critical voices have raised the issue of how to account for the semantics of adjectives (Ungerer and Schmid 1996). The authors question whether adjective categories can be studied on the same premises as other categories (mostly noun categories) in relation to categorisation. A claim within cognitive linguistics is that lexical categories form taxonomies in which one lexical category has a privileged status as a basic level. Hyperonyms show fewer details and less precision while hyponyms exhibit more detail but tend to be specific terms, even technical

terms. An example is *flower*, which is a lexical category on the basic level, while *plant* is a hyperonym and *sunflower* is a hyponym. Where the dimensional adjectives are concerned, I have not positioned them hierarchically in relationship to other adjectives, but I believe that their degree of entrenchment corresponds to the degree basic level terms occupy in the human mind. The adjectives are acquired early, their linguistic form is simple and short, and they are relatively common. Ungerer and Schmid suggest that adjectives, as opposed to nouns, represent a kind of cognitive experience in which interaction with object, people or our own bodies is important. My study provides evidence for such an assumption. As has been pointed out, both visual and tactile information is involved, as well as apprehension of direction.

I will now move on to an evaluation of the data used in the study. This will be followed by some remarks on the methodology.

The data came from four sources: a corpus, an elicitation test, dictionary articles on the dimensional adjectives, and my own linguistic intuition. Occasionally, natural observations have been considered and informal questions addressed to native speakers in my immediate environment.

The fact that the corpus has been gathered from fiction has suited my purposes well (see Chapter 4 for a detailed description of the corpus). I have had no intention to study metaphorical or extended uses, and therefore, the great amount of spatial, non-metaphorical uses in fiction has been beneficial for my study. I have omitted all uses that had any metaphorical context or “flavour”. Subsequently, I have formed the opinion that it would have been possible to include such uses as long as the collocation (adjective and noun or equivalent) describes what Lyons (1977) refers to as first-order entity (more or less concrete objects). On the other hand, these uses may not have added anything further.

The reason for my partial omission of human bodies, body parts, clothes and animals was based on my initial intention to include and discuss these uses in a separate section. Circumstances prevented me from doing so. My hypothesis about uses involving the human body was that here the dimensional adjectives would be used analogously to the way in which they were used when describing objects outside the body and not the other way around. However, in the end, it turned out that it was not possible to omit uses concerning the human body and body parts totally, because of the strong associations of the two adjectives *tjock* ‘thick/fat’ and *smal* ‘narrow/thin’ with the human body. (Such an association may not, however, necessarily mean an “inner” experience of being *tjock* ‘fat’ or *smal* ‘thin’, but may be tied to experiencing other people as *tjock* ‘fat’ or *smal* ‘thin’.) In order to give a fair account of the semantics of these adjectives, I had to incorporate such uses in the data. This outcome mirrors fairly accurately the differences between dimensional adjectives when compared to each other. I now regret not having incorporated uses concerning the human body, body

parts, clothes and animals in the data, from the beginning for all twelve dimensional adjectives. I believe it would have yielded a clearer and richer analysis. However, it is important to stress that I do not believe that such incorporation would have invalidated my results.

The elicitation test was performed late in the study, and if time had permitted, I would have preferred to regard the test as a pilot so that it could be repeated with the experience acquired taken into consideration, which would mainly have led to making the instructions clearer. It was stated, although for some informants possibly not clearly enough, that a noun should be combined with the given adjective. My intention was that these combinations would be syntactically and semantically well-formed. Some data I acquired were rather free associations, where the two lexical items did not form a syntactic or semantic combination.

The dictionary articles have been used as a starting-point and as such, they have proven useful. Finally, my own linguistic intuition has been my companion throughout the study, although as time passed I resorted to it increasingly to construct odd examples and less often to appraise what was good and bad. It has of course been useful.

Overall I consider the fact that my study has relied on four different sources of data as beneficial for the outcome. In related literature, use of more than one source is relatively uncommon. Both ranking tests and corpus data are used in Dirven and Taylor (1988), while Athanasiadou (2001) considers dictionaries and corpora. However, when a study concerns the language that the author speaks as a native speaker, linguistic intuition is probably always included at least to some extent. Still, the majority of the studies to which I refer on dimensional adjectives only take native speaker intuition into consideration, thus making use of one type of data.

On methodology, I have not performed a full-blood corpus linguistics study, nor was it my intention to do so. See Hellberg (1992) for a discussion of related matters. I have not used statistical analysis, although I have provided figures, more for some adjectives, less for others. My justification for this procedure has been that I have wanted to present a picture rather than provide exact percentages, and moreover, I have wanted to pay more attention to interesting cases that were relatively infrequent.

Furthermore, it can be discussed how well my simplified version of Langacker's network model (Langacker 1987) and the prototype model (Rosch and Mervis 1975, Rosch 1975 among others) has suited my purposes.

At first, my intention was not to venture into the area of polysemy, as I considered the whole issue of how to describe polysemy as very complex. I gradually realised that it would be difficult to avoid the issue, and by that time I had developed an analysis in which polysemy seemed to fit in a rather unproblematic way. I still regard polysemy as a very interesting field *per se*, but in my study, I simply use the term to describe the fact that some

uses of the same dimensional adjectives are so different that I do not find a way for one use to be predicted from the other (see Langacker 1987). The test for polysemy that I have established may lack further application, but for my purposes, it is sufficient. I test whether two uses may be compared to each other in a well-formed way. *Huset är högre än molnet* ‘The house is higher than the cloud’ is good, or at least acceptable, while *?Soppan är tjockare än bordsskivan* ‘The soup is thicker than the top of the table’ is odd. Thus, the dimensional sense and the positional sense of *hög* ‘high’ may be regarded as part of the same, monosemous lexical category, while the sense of *tjock* ‘thick’ referring to a liquid’s viscosity and the sense of *tjock* ‘thick’ referring to a solid, flat object, are regarded as part of a polysemous lexical category (a complex category in Langacker’s terms, Langacker 1987). My results show that the majority of the adjectives are polysemous (*bred* ‘broad/wide’, *vid* ‘broad’, *tjock* ‘thick’, *smal* ‘narrow/thin’, *tunn* ‘thin’, *djup* ‘deep’, and *grund* ‘shallow’) while a minority are not (*hög* ‘high/tall’, *låg* ‘low’, *trång* ‘narrow’, *lång* ‘long’, and *kort* ‘short’). It is quite interesting that *vid* ‘broad’ and *trång* ‘narrow’, which are commonly seen as antonyms, are members of different sets from this point of view.

As has already been mentioned, I have used a simplified version of Langacker’s network model (Langacker 1987). The simplification lies in my omission of the relational types between the members (the nodes) of the complex category. In my study, the relationships between the members in the complex category have mostly been characterised by reduction. Probably, this is close to what Langacker refers to as specialisation (Langacker 1987:379). It can be argued that without characterising the relations, my model is closer to Lakoff’s radial model (Lakoff 1987). However, for one of the adjectives, *trång* ‘narrow’, there are relations not only between the central member and the remaining members, but also between separate, non-central members. My understanding is that this is seen only in the Langackarian model. Athanasiadou (2001) also makes use of the network model when analysing the English dimensional adjectives *broad* and *wide*, without characterising however the relational type between the members. Apart from that, the network model has not been applied to dimensional adjectives in any publication that I know of.

Each member in the complex category constitutes a simple lexical category (Langacker 1987). I have regarded these simple categories as formed around prototypical uses of the adjectives. A description of a dimensional adjective by use of prototype models (on the simple lexical category level) has been performed by Dirven and Taylor (1988) and Goy (2002), although their discussion makes use of ranking, with some nouns ranked better than others at combining with a certain dimensional adjective. (Ranking is also used in Weydt and Schlieben-Lange but the prototype model is not touched upon.)

I believe that studies on dimensional adjectives would benefit from a clarification on what is actually a category member: is it merely the dimensional adjective or is it a use in which the adjective combines with a noun? A third possibility is that neither is a category member, but that instead the characteristics of the adjective and/or the noun it combines with are the category members. Cruse (1990) discusses related issues when discriminating between two approaches in prototype studies: one where the lexical item is the category member, and another, where characteristics of the lexical item form category members.

My own approach, which I am sure can be further improved, is that within the simple category, combinations of adjective and noun should be regarded as category members. Thus, *djupt hav* 'deep sea' is a prototypical use of the central case of *djupe* 'deep', or, in other words, the collocation is a prototypical member of the central case of the complex category *djupe* 'deep'. In the complex category, however, characteristics are used to describe the various members. The central case of *djupe* 'deep' is the adjective describing a vertical extension of a container with an open top. However, it seems that for adjectives, these two perspectives (characteristics versus combinations of lexical items as members of the category) are more interwoven than for other word classes. Characteristics of a certain use probably have a cognitive bearing that can be articulated about why a certain use is perceived as prototypical or as peripheral. On the other hand, these characteristics are intricately associated with the referent, for which such a description is adequate. I have tried to keep these perspectives separate but, as indicated, I believe that this is difficult in the case of adjectives, and secondly, I understand that since boundaries on the whole are recognised as fuzzy in cognitive linguistics, the boundary between the two perspectives, or between simple and complex lexical categories, must not necessarily be considered strict. It seems that this model has worked satisfactorily for my purpose.

My belief is that my work forms a contribution on various levels. From a more pragmatic perspective, new dictionaries of Swedish will probably benefit from my description of the adjectives. This includes the SAOB-articles on *tjock* 'thick', *tunn* 'thin' and *vid* 'broad', which have yet to be written. Textbooks for students learning Swedish may possibly make use of my analysis, too.

My portion of the international research on dimensional adjectives will hopefully be useful. I consider that my discussion of the direction of *djupe* 'deep' and *höge* 'high/tall' is novel. Further, the unification of 'resistance' and 'minimal extension' by means of 'the dimension that is grasped, if the object is manipulated' concerning *tjock* 'thick' and *tunn* 'thin' offers a genuine alternative to the pragmatic bridge suggested by Vandeloise (1993) for French *épais* 'thick'. The detachment of the vertical extension from an object described as *höge* 'high/tall' is a further refinement of Durrell's

(1988) starting-point concerning German *hoch* ‘high/tall’ and English *tall*, and supporting arguments in terms of linguistic uses are offered.

Finally, to the best of my knowledge, my work is among the first to include a whole set of dimensional adjectives described within a cognitive linguistic framework (for reasons that are given in Chapter 2, I do not consider Stolz 1996 a cognitive study). Rakhilina (2000) describes the Russian dimensional adjectives, however not on the same detailed level. The fact that my study relies on four types of data may be taken as an invitation to discuss data on a more general level in relation to semantic studies. As has been indicated in this chapter, my work has also raised methodological questions about how to account for the membership of simple and complex categories concerning adjectives.

In my study I have touched upon antonymy, hinting that the dimensional adjectives (among the antonyms *par excellence* according to Ljung 1974) do not exhibit as strong antonymous relations as tradition has it. The separate analyses adopt different starting-points. For one adjective, the image schema Container plays a dominant part (*djup* ‘deep’), while for another the act of grasping the object with one’s hand is central (*tjock* ‘thick’). As has been mentioned, the human body is associated with two of the adjectives, whereas other adjectives do not show such relationships. In some contexts, adjectives overlap, whereas other situations are difficult to describe since no adjective seems to suit. The belief that the dimensional adjectives do not form a neat patchwork, or a neat semantic field, has thus been strengthened.

## 13 Sammanfattning

Min undersökning har syftat till att ge en grundlig beskrivning av betydelsen hos de svenska dimensionsadjektiven *hög, låg, bred, smal, tjock, tunn, vid, trång, djup, grund, lång* och *kort*. Mitt intresse för adjektiven har flera skäl. För det första har jag sett en spänning i det faktum att vi uppfattar att världen har tre dimensioner, medan antalet dimensionsadjektiv är fler än tre. Detta fenomen kan leda till missförstånd. Ett exempel på ett sådant är en naturlig observation från en fest, där en person bad om *den tjocka vassen*. Personen fick en vas, men inte den hon hade bett om. Hon hade avsett en vas med tjocka väggar, och istället fick hon en vas med rund, bullig form. Ett adjektiv står alltså inte i ett ett-till-ett-förhållande till en dimension. För det andra har jag intresserat mig för en tradition inom semantiken att ange dimensionsadjektiv som goda exempel på antonymi (gradmotsats). Snart sagt all litteratur som berör antonymi, från forskningsartiklar (bl. a. Lehrer och Lehrer 1982) till läroböcker (bl.a. Allwood och Andersson 1992), anger dimensionsadjektiv som *stor – liten, hög – låg* eller deras motsvarigheter på andra språk som ett led att förklara vad antonymi är. Några undersökningar har dock ifrågasatt att dimensionsadjektiven uppvisar full antonymi (bl. a. Lafrenz 1983 och Durrell 1988). Dessa undersökningar har gällt tyska och engelska, men resultaten verkar tillämpbara också på svenska. Här har min nyfikenhet väckts att studera svenska dimensionsadjektiv ur denna synvinkel, då mitt intryck har varit att adjektiven inte är fullt antonyma. För det tredje har dimensionsadjektiv använts för att illustrera och förklara särdragsanalys (Greimas 1966). Adjektiven har antagits uppta avgränsade, intilliggande semantiska fält, och deras betydelse har sammanfattats med plus- och minus-tecken för skilda parametrar som perspektiv, vertikalitet osv. I en sådan modell har adjektiven inbördes relationer och vad ett adjektiv inte kan uttrycka, kan ett annat, och *vice versa*. Också detta perspektiv har ifrågasatts i senare studier (bl.a. Lafrenz 1983 och Durrell 1988). Mina preliminära iakttagelser har varit att de svenska dimensionsadjektiven inte kan sammanfattas i en sådan lapptäckesmodell, och här har jag önskat utforska de inbördes relationerna mellan adjektiven.

Jag har inte intresserat mig för den norm eller det genomsnittsmått, som ett föremåls dimensioner behöver överstiga för att beskrivas som *brett*. En älv kanske anses *bred* om dess bredd överstiger 10 meter, men jag har snarare studerat varför en älv överhuvudtaget kan kallas *bred* medan en fotboll snarare inte beskrivs som *bred*. Vidare har jag undersökt dimensionsadjektiven i deras rumsliga, icke-metaforiska betydelse. Alltså har *bred* som i *bred älv* ingått i min undersökning, medan *bred* som i *bred publik* har utgått. Ett allmänt antagande är att rumsliga betydelser är grund-

läggande också för överförda betydelser vilket motiverar att undersökningen bara tagit upp de rumsliga.

Inom området finns en omfattande tidigare forskning. Studier om dimensionsadjektivens semantik omfattar språken engelska (Clark 1973, Lyons 1977, Dirven och Taylor 1988, Vandeloise 1988, 1993, Durrell 1988, Fillmore 1997, Athanasiadou 2001), tyska (Bierwisch 1967, Lafrenz 1983, Weydt och Schlieben-Lange 1998, Lang 1989, 2001), franska (Greimas 1966, Spang-Hanssen 1990, Geckeler 1997), ryska (Rakhilina 2000), polska (Linde-Usiekniewicz 2000, 2002, manuskript), italienska (Goy 2002) och yucatec maya (Stolz 1996). I typologiska studier (Zubin och Choi 1984, Wienold och Rohmer 1997) behandlas data från upp till 31 skilda språk, såväl europeiska som utomeuropeiska. För skandinaviska språk begränsar sig forskningen om dimensionsadjektivens semantik till Ström (i manuskript, 1997, 2001a, 2001b), det vill säga min egna studier i ämnet.<sup>80</sup> Resultat från undersökningar om närliggande språk, framför allt tyska och engelska, har i föreliggande arbete fungerat som utgångspunkter och hypoteser.

Den internationella forskningen har representerat olika teorier. Huvudsakligen har två fält urskiljts, det strukturalistiska (Greimas 1966, Bierwisch 1967 och Lang 1989 som dess främste företrädare) och det kognitivistiska (Clark 1973, Dirven och Taylor 1988 och Vandeloise 1988, 1993 med flera). Min undersökning har gjort grundläggande antaganden som överensstämmer med den kognitiva lingvistikens. Kognitiv lingvistik kan beskrivas som en funktionell skola, där språket ses som en integrerad del av de människans kognitiva förmågor, och där prekonceptuella, prelingvistiska erfarenheter utgör grunden för semantiken. Ett exempel på en sådan erfarenhet är gravitationen, vilken vi utsätts för och känner i vår egen kropp från späda ålder. Vidare antas språket ha minsta beståndsdelar i form av föreställningsscheman (*image schemas*, se Lakoff och Johnson 1980), som inte kan brytas ner i mindre enheter och inte heller förklaras med hjälp av andra begrepp. Exempel på föreställningsscheman som jag har använt mig av i min analys är den Vertikala Axeln, Behållare, Väg, Yta och Föremål. Inom kognitiv lingvistik definieras ord på ett alternativt sätt i jämförelse med den klassiska definitionen, vilken härrör från Aristoteles, där ett ord beskrivs med hjälp av ett antal nödvändiga och tillräckliga egenskaper. Mot denna modell står den kognitiva lingvistikens prototypmodell. Ett ord sägs motsvara en lexikal kategori, där vissa referentklasser är prototypiska medan andra är perifera. Ett klassiskt exempel är kategorin *bird* 'fågel', där *robin* 'rödhake' visar sig vara prototypisk, medan *ostrich* 'struts' och *penguin* 'pingvin' är perifera (Rosch 1975). Ett ord som är polysemt (flertydigt) motsvaras av en komplex lexikal kategori, vilken kan beskrivas som en

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<sup>80</sup> Sedan dessa undersökningar publicerades har jag bytt namn från Anna Ström till Anna Vogel.

nätverksmodell (Langacker 1987), där noder motsvarar olika betydelser, och länkarna mellan noderna karakteriserar typen av relation. Viktigt i sammanhanget är att gränserna för kategorierna är luddiga ("fuzzy"), att medlemmarna i en kategori (enkel eller komplex) uppvisar familjelikhet med varandra.

I mitt material har jag uteslutit de användningar då adjektiv beskriver människokroppen och djurkroppar. Skälet till detta har varit ett antagande om att det sätt, på vilket kroppen beskrivs, är analogt med det sätt, på vilket föremål utanför kroppen beskrivs, samt att föremålets beskrivning är primär i förhållande till kroppens beskrivning. Här stödjer jag mig på nyare forskning (Sinha och Jensen de López 2000) vilka ifrågasätter den starka ställning som upplevelsen av den egna kroppen har fått inom kognitiv lingvistik (tesen om kroppslig förankring ("Embodiment Thesis"), främst företrädd av Lakoff och Johnson 1980, Lakoff 1987, Lakoff och Johnson 1999). Vidare har jag uteslutit adjektiv som beskriver klädesplagg, då tidigare studier antyder att klädesplagg beskrivs i enlighet med den kroppsdelen de täcker (Ström 1997).

Materialet har hämtats från fyra olika källor. Jag har dels arbetet med en korpus, dels med infödda talare som medverkat i elicitationstest, vidare har jag hämtat data från ordboksartiklar om dimensionsadjektiven, och slutligen har jag använt mig av min egen språkliga intuition. Enstaka naturliga talspråksobservationer liksom mer tillfällig information från infödda talare i min omgivning har också beaktats.

Korpusmaterialet har samlats in från Språkbankens romankorpusar (B76–77) och (B80–81). Skönlitteraturens rika beskrivningar av miljöer och föremål har ansetts passa ändamålet väl. Det faktum att cirka en fjärdedel av materialet är översatt text, främst från engelska, har inte antagits påverka utfallet, då översatt litteratur snarare verkar ligga närmare en språknorm och därmed innehålla färre innovativa och kreativa inslag (se Toury 1995). Principen "total accountability" (Johansson 1985) har använts, vilket innebär att varje belägg har beaktats, även om det har verkat aldrig så apart.

Elicitationstestet har utförts med 17 infödda deltagare, som besvarade 14 frågor, formulerade enligt typen "Nämna tre substantiv som du tycker passar bra ihop med *hög*". Testet har konstruerats enligt en modell från Weydt och Schlieben-Lange (1998).

Ordboksartiklar har hämtats från fem ordböcker: Svenska Akademiens ordbok, Illustrerad svensk ordbok, Nusvensk ordbok, Bonniers svenska ordbok och Nationalencyklopedins ordbok. Särskild uppmärksamhet har ägnats åt ordböckernas första exempel, som har antagits antyda en prototypisk användning.

Min språkliga intuition har kunnat avgöra vilka språkliga användningar som är bra (*bred älv*) och vilka som låter märkliga (*bred fotboll*). Min intuition har också använts till att byta ut adjektiv i kontext (i korpusen) mot

deras förmodade antonymer för att undersöka motsatsrelationerna mellan adjektiven.

Arbetet med korpusen har till stor del handlat om att kategorisera beläggen efter skilda variabler. Det faktum att de teoretiska grundantagandena har hämtats från kognitiv lingvistik har fått till följd att aspekter som funktion, visuell perception och sensitiva erfarenheter har fått en framträdande position i analysen. Som exempel kan nämnas att adjektivet *djup* har knutits hårt till att det föremål, som beskrivs, har funktionen behållare (*djup skål*), eller att adjektivet *bred* främst beskriver ett föremål, vars höger-vänster-dimension ryms inom synfältet (*bred väg*), samt att *tjock* beskriver den dimension av ett föremål, vilken man tar om då föremålet flyttas eller manipuleras (*tjock matta*, man nyper tag om den dimension som utgör tjockleken om mattan ska flyttas). Kategoriseringen har vidare utgått ifrån de resultat som hämtats från tidigare forskning, samt av hypoteser som väckts i mötet med de olika materialtyperna. För korpusens del har frekvens spelat störst roll. När det har gällt data från elicitationen har frekvens på ett liknande sätt varit avgörande. Angående ordböckernas definitioner har rangordning av betydelse och exempel beaktats. Slutligen har min språkliga intuition bidragit med ett slags grundidé om vad exempelvis *hög* står för. För kategoriseringen av korpusen har tre övergripande teman kunnat urskiljas: funktion, orientering och form.

I det följande sammanfattas resultaten för de tolv dimensionsadjektiven.

*Hög* beskriver en vertikal extension. Adjektivet kan beskriva både yttre och inre dimensioner, och den vertikala extensionen upplevs som mätt från ett referensplan till ovansidan av det ett föremål som avses. *Hög* kombineras företrädesvis med nominal som refererar till föremål som har en kanoniskt vertikal orientering, som står eller uppfattas som om de står på marken, som uppvisar en rörelseriktning (faktisk eller tänkt) uppåt, vars vertikala dimension är den maximala, som är lika stort eller större än en människa, som framträder gentemot en bakgrund, som har en funktionellt viktig ovansida och, slutligen, som består av styvt material. Adjektivet ses i sin rumsliga betydelse som monosemt (entydigt), och motsvaras av en enkel lexikal kategori, där vissa användningar, som *högt hus* och *högt berg* är prototypiska medan andra användningar är perifera, som *hög tröskel* och *högt fiolstall*. Adjektivet *låg* beskriver också en vertikal dimension, men inte en maximal utan snarare en icke-maximal. Vidare associeras en rörelseriktning som först går uppåt, från ett referensplan till en punkt som svarar mot en förväntad norm, och därefter neråt, till föremålets ovansida.

Adjektivet *bred* beskriver en höger-vänster-dimension i förhållande till en användare. Denna dimension är på samma gång den minsta dimensionen i det horisontella planet (parallellt med jordytan). Utsträckningen är fullt synlig i användarens synfält. Vidare sönderfaller dimensionen i två hälfter, som båda utgår från en mittpunkt, den ena åt höger och den andra åt vänster. Adjektivet kan beskriva både yttre och inre mått. *Bred* beskriver

primärt föremål som har en sådan orientering att dess huvuddimensioner breder ut sig parallellt med jordytan, som ligger på eller som utgör en del av marken, samt som uppfattas som tvådimensionella ytor. Adjektivet ses som polysemt (flertydigt) och motsvaras av en komplex kategori, vilken kan beskrivas som en nätverksmodell. Här är en betydelse central (kan exemplifieras med *bred motorväg*) medan andra ses som relaterade betydelser (*bred plank*).

Adjektivet *vid* beskriver två dimensioner som formar en passage, genom vilken något passerar i en riktning som är vinkelrät mot dessa två dimensioner (*vid öppning*). Adjektivet anger inre mått. Dimensionerna har en riktning från mitten och utåt. Adjektivet beskriver inte gärna en dimension som är kanoniskt vertikal (*vid grindöppning* anger bara en horisontell dimension). *Vid* beskriver företrädesvis föremål, som har två ungefär lika stora dimensioner. *Vid* kan också beskriva en yta (*det vida havet*), en rörelse (*en vid gest*) eller ett tredimensionellt föremål (*vida yppiga lövsal*). *Vid* uppfattas som polysemt, där de ovan nämnda fyra huvudbetydelseerna motsvarar varsin enhet i en nätverksmodell. *Vid* som passage anses vara den centrala betydelsen.

Adjektivet *tjock* beskriver en dimension, vilken greppas av användarens hand eller fingrar, i den händelse detta flyttas eller manipuleras. Vidare är denna dimension den minsta. *Tjock* beskriver också att ett föremål har en hög grad av motstånd mot yttre krafter. Adjektivet rör yttre mått. Det är bara delvis ett dimensionsadjektiv. Till skillnad från de flesta andra adjektiv i undersökningen är *tjock* starkt knutet till människokroppen. *Tjock* ses som polysemt och beskrivs med en nätverksmodell. Den centrala betydelsen utgörs av fall där adjektivet både beskriver den greppvänligaste dimensionen, den minsta dimensionen samt ett motstånd mot yttre krafter. Här är en användning som *tjock gubbe* prototypisk. Icke-centrala betydelser anger endast motstånd i större (*tjock dimma*) eller mindre utsträckning (*tjock snö*, *tjockt hår*) eller endast greppvänlig dimension och minsta dimension (*tjock bräda*).

Adjektivet *smal* beskriver antingen en höger-vänster-dimension i förhållande till en användare, eller omkretsen hos en cylinder. I den förra betydelsen avses den minsta horisontella dimensionen. Den senare betydelsen är starkt associerad till människokroppen (*smal modell*). Både yttre och inre mått avses. Vad gäller funktion hos icke-animata föremål beskriver *smal* primärt vägar eller passager (*smal stig*, *smalt fönster*). Adjektivet ses som polysemt. Det kan beskrivas som en nätverksmodell, där två betydelser, dels då *smal* beskriver väg eller passage, dels då *smal* beskriver cylinderformade föremål, däribland människokroppen, är centrala, och andra är icke-centrala (*smalt rör*, *smal trädgård*). *Smal* uppvisar antonym relation till både *bred* och *tjock* (*tjock korv*, *smal korv*).

Adjektivet *tunn* beskriver en dimension, som kan hållas mellan fingrarna, och som är den minsta dimensionen. Vidare beskriver adjektivet låg grad av

motstånd. *Tunn* beskriver företrädesvis platta föremål (*tunna skivor*). Precis som *tjock* ses *tunn* som polysemt, och det beskrivs, liksom *tjock*, av en nätverksmodell där en betydelse är central. *Tunn* och *tjock* uppvisar hög grad av antonymi (den högsta i jämförelse med övriga adjektivpar).

Adjektivet *trång* beskriver inre mått. Det är tydligt knutet till att beskriva föremål som har en av tre funktioner: väg, passage eller behållare, främst föremål där en människa färdas längs, passerar genom eller ryms i föremålet. Adjektivet är monosemt. *Trång* och *vid* är antonymer när det gäller vägar och passager. För behållare är *trång*:s motsats snarare *rymlig*.

Adjektivet *djup* beskriver en vertikal dimension, som uppfattas som mätt från ett föremåls ovansida till föremålets botten. Adjektivet beskriver ett inre mått. *Djup* beskriver företrädesvis föremål som är behållare, som har en öppen ovansida, som består av vatten, vars botten är mindre åtkomlig än dess ovansida, vars botten är svåråtkomlig, vars utsträckning från ovansida till botten är svår att uppskatta, vars ovansida är jämn, och slutligen som befinner sig nere i jorden. Ett exempel på ett sådant föremål är en sjö (*djup sjö*). Adjektivet anses vara polysemt, och beskrivs som en nätverksmodell. En betydelse är central (*djupt vatten*) medan en är icke-central (*djup grotta*).

*Grund* har en liknande beskrivning, men här gäller också att adjektivet avser den minsta dimensionen hos föremålet. *Djup* och *grund* uppvisar endast partiell antonymi. Mot kollokationerna *djup bassäng*, *djup tallrik*, *djup snö*, *djup skog* och *djupt gräs* står *grund bassäng* men *flat tallrik*, *tunn snö*, *gles/liten skog* och *lågt gräs*.

Adjektivet *lång* beskriver den största dimensionen hos ett föremål. Både yttre och inre mått kan beskrivas. *Lång* används om en dimension, som inte redan har beskrivits av annat dimensionsadjektiv med hänsyn till orientering och/eller riktning. Den rumsliga betydelsen av *lång* anses monosem. Sålunda motsvaras adjektivet av en enkel kategori. Dock saknas en tydlig prototyp, snarare återfinns ett tätt kluster i kategorins kärna (*lång pinne*, *lång gång*, *lång text*, *långt bord*), medan de perifera användningarna är få. Exempel på sådana perifera användningar är då *lång* beskriver en kanoniskt maximal utsträckning som i det aktuella fallet inte är maximal, så som då en dubbelsäng som är 2 meter *lång* och 2,40 meter *bred* kallas just *lång* med avseende på den utsträckning som mäter 2 meter och alltså inte är maximal.

Adjektivet *kort*, slutligen, liknar *lång* relativt mycket och adjektivparet uppvisar förhållandevis hög grad av antonymi.

Resultaten har styrkt antagandet att dimensionsadjektiven inte uppvisar full antonymi. Mot adjektivet *djup* svarar inte bara *grund* utan också *flat*, *platt*, *tunn*, *gles*, *liten* och *låg*. Vidare har antagandet att dimensionsadjektiven inte lämpar sig att beskrivas som välavgränsade, intilliggande semantiska fält stärkts. För vissa föremål i vissa kontexter saknas lämpligt dimensionsadjektiv och en omskrivning får göras. Andra gånger kan flera dimensionsadjektiv beskriva samma föremål (*hög snö*, *djup snö*, *tjock snö*).

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# Appendix

## Enkät 'questionnaire'

Du ombeds att nämna tre substantiv, som du tycker passar bra ihop med ett givet adjektiv. 'You are asked to name three nouns you think go together well with a given adjective.'

Ex: Näm n tre substantiv som du tycker passar bra ihop med **rostig**

'Name three nouns you think go together well with **rusty**'

- a) Spik
- b) Bil
- c) Cykel

1. Näm n tre substantiv som du tycker passar bra ihop med **hög**

'Name three nouns you think go together well with **high/tall**'

- a)
- b)
- c)

2. Näm n tre substantiv som du tycker passar bra ihop med **bred**

'Name three nouns you think go together well with **broad/wide**'

- a)
- b)
- c)

3. Näm n tre substantiv som du tycker passar bra ihop med **vid**

'Name three nouns you think go together well with **broad**'

- a)
- b)
- c)

4. Näm n tre substantiv som du tycker passar bra ihop med **tjock**

'Name three nouns you think go together well with **thick**'

- a)
- b)
- c)

5. Näm n tre substantiv som du tycker passar bra ihop med **djup**

'Name three nouns you think go together well with **deep**'

- a)
- b)

6. Näm n tre substantiv som du tycker passar bra ihop med **lång**

'Name three nouns you think go together well with **long**'

- a)
- b)
- c)

7. Nämn tre substantiv som du tycker passar bra ihop med **låg**  
'Name three nouns you think go together well with **low**'  
a)  
b)  
c)
8. Nämn tre substantiv som du tycker passar bra ihop med **smal**  
'Name three nouns you think go together well with **narrow/thin**'  
a)  
b)  
c)
9. Nämn tre substantiv som du tycker passar bra ihop med **trång**  
'Name three nouns you think go together well with **narrow**'  
a)  
b)  
c)
10. Nämn tre substantiv som du tycker passar bra ihop med **tunn**  
'Name three nouns you think go together well with **thin**'  
a)  
b)  
c)
11. Nämn tre substantiv som du tycker passar bra ihop med **grund**  
'Name three nouns you think go together well with **shallow**'  
a)  
b)  
c)
12. Nämn tre substantiv som du tycker passar bra ihop med **flat**  
'Name three nouns you think go together well with **flat**'  
a)  
b)  
c)
13. Nämn tre substantiv som du tycker passar bra ihop med **platt**  
'Name three nouns you think go together well with **flat**'  
a)  
b)
14. Nämn tre substantiv som du tycker passar bra ihop med **kort**  
'Name three nouns you think go together well with **short**'  
a)  
b)  
c)

TACK FÖR HJÄLPEN! 'thank you for your cooperation!'

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