

Comment on Gibbs' "Social nature of Embodied Cognition. A View from the World of Metaphor": Prerequisites for a Social and Cultural Approach to Cognition

Caroline Cance

► **To cite this version:**

Caroline Cance. Comment on Gibbs' "Social nature of Embodied Cognition. A View from the World of Metaphor": Prerequisites for a Social and Cultural Approach to Cognition. *Intellectica - La revue de l'Association pour la Recherche sur les sciences de la Cognition (ARCo)*, Association pour la Recherche sur la Cognition, 2011, 56 (Linguistique cognitive: une exploration critique) (2), pp.321-327. 10.3406/intel.2011.1158 . hal-02342950

HAL Id: hal-02342950

<https://hal.archives-ouvertes.fr/hal-02342950>

Submitted on 1 Nov 2019

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.

Comment on Gibbs' «Social nature of Embodied Cognition. A View from the World of Metaphor»: Prerequisites for a Social and Cultural Approach to Cognition

Caroline Cance

Citer ce document / Cite this document :

Cance Caroline. Comment on Gibbs' «Social nature of Embodied Cognition. A View from the World of Metaphor»: Prerequisites for a Social and Cultural Approach to Cognition. In: Intellectica. Revue de l'Association pour la Recherche Cognitive, n°56, 2011/2. Linguistique cognitive : une exploration critique. pp. 321-327;

doi : <https://doi.org/10.3406/intel.2011.1158>

https://www.persee.fr/doc/intel_0769-4113_2011_num_56_2_1158

Fichier pdf généré le 03/10/2019

**Comments on Gibbs' "Social nature of embodied cognition.
A view from the world of metaphor":
Prerequisites for a social and cultural approach to cognition**

Caroline CANCE*

INTRODUCTION

As suggested in the title of Gibbs' paper, there is a need and a growing concern in cognitive science in general and in cognitive linguistics and psychology in particular, to take into account social and cultural aspects in investigating cognition. Moreover the collocation of social and nature is a nod to the traditional opposition between nature and culture in all human sciences. In his paper, Gibbs develops and promotes arguments in favor of social embodied cognition in the field of metaphor theory in cognitive linguistics. My goal here is to share some thoughts that arose from reading Gibbs' paper, by addressing some implications, consequences and prerequisites for cognitive (linguistics) research when one adopts such a social constructionist approach to cognition. I will give the point of view of a French researcher in cognitive linguistics and psychology, trained in cognitive science, experienced in pluridisciplinarity and applied research, and mostly interested in the relationships between perception, language and cognition through linguistic analysis of discourses about sensory experience.

EMBODIED COGNITION: STILL A SCIENCE OF THE INDIVIDUAL ... AND THE UNIVERSAL?

The notion of embodiment has garnered increased research attention in cognitive linguistics and cognitive science in the last two decades. The paradigm of embodied cognition distances itself from the predominant mentalist paradigm and is even seen by some as a key issue of the second "cognitive revolution" (Gibbs, this issue) or "second-generation cognitive science" (Sihna, 2007). To avoid the mentalist pitfall, a solution that has been proposed by some cognitive scientists is to (re-) ground cognitive processes in the bodily experience. Of course, it is important and constitutes without doubt

* Département des Sciences du Langage et Laboratoire Ligérien de Linguistique (LLL), Université d'Orléans (depuis le 01/09/2011) ; caroline.cance@univ-orleans.fr.
Anciennement chercheure au sein d'INCAS3 (Assen, Pays-Bas).

advancement in the field. Nevertheless, one of the first criticisms one can have about embodied cognition theory is that it focuses on the individual, as Gibbs states in his section “Some problems with traditional embodied conceptual metaphor theory”, where he stresses “the individual perspective on metaphorical thought and language”. Moreover, the individual perspective of embodied cognition remains generally at the level of a generic individual, a description level that is not so far from a certain kind of universalism. This is neither specific to the metaphor field nor to Gibbs’ works. It rather indicates some general naturalistic and reductionist positioning of cognitive linguistics and psychology within cognitive science.

As Misra and Gergen remarked for psychology, “the prime concern of psychologists remained to make psychology a ‘science’ and science was identified with objectivity, experimentation, and universality” (Misra & Gergen, 1993: 227). This reduction to a generic and “universal” (Western) individual (body) has probably contributed to the “scientificity” and “objectivity” of cognitive research, allowing prescriptive formalisms. However, when attention is paid to social and cultural collective aspects of cognitive processes, this would have necessarily led to the identification of a diversity and complexity hardly “formalizable”. In this regard, Misra and Gergen add that “if considered at all - which was rare - culture was typically treated as source of error, to be controlled by sophisticated sampling procedures” or even infrequently converted into an independent (stimulus) variable” (Misra & Gergen, 1993: 227).

Concerning linguistics, Rastier among others notices that “as cognitive research is concerned with only a small number of languages, studied synchronically and as the product of standard, that is, ideal speakers (...) the restriction of the object is accompanied by a change in the epistemological status of linguistics. From its position as a social science it moves into the purview of the nature sciences or of mathematics”. Furthermore, he suggests that “cognitive research as a whole would doubtless profit from a greater consideration of cultural factors” (Rastier, 2006, chap. 2).

FROM INDIVIDUAL BODY TO (IDEALIZED) SOCIAL AND CULTURAL INTERACTIONS

Following Gibbs’ statement, one can fully agree that one of the main characteristics of human cognition – its social, cultural, and historical dimension – has been largely unexplored. In the field of cognitive science, scholars (mainly in anthropology, psychology, and linguistics) have already proposed several approaches of distributed cognition (Hutchins, 1995), situated cognition (Suchman, 1987), grounded cognition (Barsalou, 2008), social cognition (Croft, 2009) or of an enactive approach to cognition (Varela et al, 1991). Although these approaches differ from one another, they all claim a dynamic character of cognition and stress that it must be considered as relying on and resulting from situated interactions between the agent(s) and their environment(s) (see Sinha, 2007, for a discussion and review). In psychology, Barsalou’s theory of grounded cognition (Barsalou, 2008) considers “simulation, situated action, social interaction, interaction with the environment, and bodily states as dynamically underlying cognition”, renewing traditions in psychology (phenomenology, Gestalt) anterior to behaviorist and cognitivist approaches (Sinha, 2007). In linguistics, Croft remarks the

incompletion of cognitive linguistics, being “too solipsistic” and recommends cognitive linguistics to “go ‘outside the head’ and incorporate a social-interactional perspective on the nature of language” (Croft, 2009: 395).

UN-SITUATED AND A-CULTURED STUDIES ABOUT SOCIAL COGNITION

Interestingly, this socio-cultural and situated perspective has received increased research attention over the past two decades, but some questions remain unanswered especially on the methodological changes it should involve. In the different experiments in social psychology and psycholinguistics that Gibbs reports in his paper (from p. 7) but also more generally in the field, one can easily notice that there is no explicit mention of the linguistic and cultural context where the experiments take place, except when the experiments dealt precisely with contrasting different cultures (p. 9). In the material and methods section of these publications some information about subjects can be found. For instance, one can learn that the social experiments on the spatial (vertical) localization of GOOD and BAD experiences (Schubert, 2005) were conducted with Dutch students. However, why is this not explicitly mentioned in the discussion? How and to what extent can these specific local results be generalized to all human beings, instead of situating the experiment and its conclusions in its particular social, cultural and linguistic context? On this point, it is rather informative to read Giessner & Schubert’s own commentaries (2007) about the limitations of their experiment on power and social status bodily based along a vertical dimension. They first recognize that “all studies relied on student samples” although they add that “there is no reason to expect students to behave differently from other populations” (Giessner & Schubert, 2007: 43). They also remark that their work “mainly focused on showing that information on a vertical dimension in space can influence power judgments and vice versa (...) [and that they] used very artificial studies with manipulations focused to show this relation. Thus, it might be premature to conclude from these studies that these effects translate into natural context” (Giessner & Schubert, 2007: 43). Further comments on this aspect will be made in the section dedicated to ecological validity, but I already want to stress that one of the conditions to incorporate a social-interactional perspective in studying cognition is precisely to situate the experiments in “natural” (everyday-life) context.

Considering what parts of the studies are not mentioned as “limitations” is also very informative. Although Giessner & Schubert’s studies have been done with Dutch (and German) students, no comment is made on the possible cultural and language effects on conceptualization. Would the same results be found on the links between for instance a vertical dimension and the BAD/GOOD conceptualizations if other, non-Western, cultures were investigated? Similarly, it would be interesting to verify if non-Western cultures all necessarily conceptualize spiritual experience along a vertical dimension (Meier et al, 2007, cited in Gibbs, this issue). Along the same line, one can debate the first example Gibbs gives in his paper, that is the metaphor of SEEING AS KNOWING. Its universality is hardly questioned, which might be because it is so obvious for our Western minds (eyes!). Nevertheless cross-cultural studies have shown that some cultures (e.g. in Australia) do not necessarily share this visual metaphor for knowledge and rather have an auditory one: KNOWING AS HEARING (Evans and Wilkins, 1998).

A WESTERN FRAME OF REFERENCE

These last considerations lead to a second issue that has to be stressed: scientists' Western frame of reference orients the conceptualization of research and experimental design. As Misra and Gergen point out, contemporary cross-cultural psychology is a Western construction. It intends to study culture objectively "treating culture as a composite of research variables" (Misra & Gergen, 1993: 228) without making explicit distinction between etic (universal) and emic (culturally specific) dimensions. As they remark, "cross-cultural psychology has generally remained within the assumptive networks of mainstream psychology. It has maintained the methodological posture, the focus on variables or dimensions, the preference for experimentation and statistical analysis, and the mechanistic view of human functioning as inserted between stimuli and responses (...) and so long as culture is reduced to a set of moderating variables or dimensions, it will suffer the same fate" (ibid., p.229). From Misra and Gergen's perspective, breaking the deadlock relies on the development of an "ethnophenomenology" in which knowing other cultures means "immersing oneself in that culture's worldview in order to observe in oneself the effect of such an immersion" (Kukla, 1988: 151, quoted by Misra & Gergen, 1993). Nearly 20 years after, it seems that this ethnophenomenology is still missing in cross-cultural psychology and would be of great help to consider cultural aspects of cognition. These issues are very familiar to anthropologists, social scientists and field linguists and cognitive linguistics and psychology could probably benefit considerably from their insights and collaborations.

SITUATING COGNITIVE RESEARCH INTO CULTURES AND HISTORY

After a few decades of research focused on identification of universals in language and cognition (with the paradigmatic work of Berlin and Kay, 1969, as a reference point), an increasing body of literature focuses on the relationships between language, cognition and perception in various cultures. There is converging evidence that these relationships are (at least partly) cultural co-constructions (see, among others, Boroditsky, 2010, Evans & Levinson, 2009, Majid & Levinson (eds.), 2011, Roberson et al 2005, Wierzbicka, 2008 for cross cultural studies and Dubois & Cance, to appear, for variations within the French culture and language). The study of conceptual metaphors will certainly benefit from opening itself to cross cultural studies as most research has been conducted on Indo-European languages so far (Kovescs, 2006). In his paper, Gibbs refers to Kovescs' synthesis of cross-cultural studies about universality of anger. The interest of this work lies in its attempt to compare different Western with non-Western cultures (e.g. English, Hungarian, Chinese and Japanese) in their conceptualization of embodied metaphors of anger, and also in its attempt to pay attention to the diachronic dimension of these conceptualizations (Kovescs, 2000). This diachronic dimension is another crucial aspect that is mostly missing in the field, i.e. the grounding into (individual and collective) history. On that particular point, Pastoreau's exemplary work on the history of colors (primarily in France) shows how diachronic variation is at work as soon as the investigation is situated into history and social and cultural practices (Pastoreau, 2008). For instance, the symbolic values of black and white (noir and blanc) are shown to be ambivalent and to have changed within ages, cultures, practices and domains of expertise. Black was very positively connoted in ancient Egypt,

and white is (still) the color of mourning in Eastern cultures. Thus the strong relationship between GOOD-WHITE / BAD-BLACK advocated by Meier et al (2004), Strobeck & Clore (2008), and reported by Gibbs (p. 8), might need to be reconsidered by situating their research in its specific cultural and historical context.

METHODOLOGICAL IMPLICATIONS: TOWARDS AN ECOLOGICAL VALIDITY FOR INVESTIGATING SITUATED COGNITION

We have already seen that in embodied approaches to cognition and even in contemporary approaches that seek to account for social and cultural dimension of cognition, subjects are idealized and alone in an “aseptic” and decontextualized world. When results do not only come from “introspections and intuitions of individual analysts” (Gibbs, p.7), the construction of experimental settings can also play a role. In addition to the choice of subjects or groups of subjects mentioned above, the construction of the stimuli sets, tasks, and instructions can easily shape and contribute to some averaging and genericity (and eventually lead to universality). For instance, various scholars, from linguistics, anthropology or psychology, have deconstructed the Berlin & Kay’s experimental protocol, showing that it is strongly biased and therefore, not surprisingly, leads to the identification of universal basic color terms and concepts (see among others, Foley, 1997, Lucy, 1997, Dubois & Cance, 2009).

In the 1950s, Gibson was already suggesting that psychologists leave their laboratories and start actively observing individuals interacting with their environment, in a quest for “an ecological approach to visual perception” (Gibson, 1979). More recently Rastier (2006) remarks, “there is a growing number of researchers engaged in cognitive research, notably in ergonomics and in anthropology (disciplines for which context is not a simple variable), who have argued for and adopted this very perspective (Suchman, 1987)”. In cognitive science, researchers have stressed the importance of such ecological validity, calling for an epistemology of experimental settings (Guastavino et al. 2005, Guastavino, 2009, Cance, 2009).

CONCLUSION

Like Gibbs and a growing number of scholars in the cognitive science community, I aim to develop a situated approach to cognition. In this view, research on conceptual metaphors and more generally in cognitive linguistics and cognitive science needs to take into account not just the embodied experience but also to ground it into a cultural, social, historical (...) context. However, how to implement this approach remains an open question. Specifically, one of the challenging issues is certainly to describe and understand how these different levels are intertwined and rely on different kinds of individual and collective processes.

As briefly presented, some scholars in cognitive linguistics and cognitive science have recently promoted social constructivist approaches. Nevertheless, the methodological implications still seem a bit vague. One might wonder how this shift is possible if current methodologies are (still) i) focusing, as we have seen, on the Western idealized speaker/individual (considered as generic and universal) and ii) performed in a lab setting, in abstraction of the cultural and social environment and context. It might be fruitful to (re-) connect with other fields, notably linguistics, that have decades of experience in dealing with social, cultural, and historical aspects of language and discourse processes

(sociolinguistics as linguistic typology, ethno-linguistics and discourse analysis) and where cognitive perspectives have already permeated their work. Among others, we can consider Paveau's proposal of a linguistic discourse analysis that "prend pour objet la matérialité des discours produits, situés dans leurs contextes historique, social et culturel", with a "une dimension cognitive (...) apte à enrichir et à peut-être renouveler des pratiques d'analyse qui commencent peut-être à épuiser leurs possibles" (Paveau, 2006: 11). Other works have defined and built on cognitive sociolinguistics (Geraert et al, 2010) and sociocognitive terminology (Temmerman, 2000). New practices are also developed in cognitive linguistics where methodologies of corpus analysis borrowed from sociolinguistics and discourse analysis start to be more systematically used (Glynn & Fischer, 2010). On the other hand, insights and methodologies from social psychology, sociology, anthropology - such as observations, ethnomethodology, and ethnographic methods - will also be very important to study individuals' cognition situated into and interacting with a cultural and social environment (see for instance Mondada (ed.), 2005, on "espace, inter/action and cognition").

A strong pluridisciplinary framework is therefore needed to connect and structure the interactions between different fields such as sociology, anthropology, social psychology, cognitive psychology and cognitive linguistics (see Dubois (ed.), 2009, for a theoretical and methodological framework in linguistics and psychology). If the cognitive science community succeeds in doing so, this will allow for a "rehumanization" of the cognitive science landscape and emphasize the contribution of the humanities and social sciences to cognitive science.

ACKNOWLEDGMENTS. I would like to thank my colleagues at INCAS3 and McGill University who helped me to improve my text with their suggestions. INCAS3 is supported by The Northern Netherlands Provinces (SNN) and co-financed by the European Union, European Fund for Regional Development and the Ministry of Economic Affairs, Peaks in the Delta.

REFERENCES

- Barsalou, L. W. (2008). Grounded cognition. *Annual Review of Psychology*, 59, 617-645.
- Berlin, B. & Kay, P. (1969). *Basic Color Terms: Their Universality and Evolution*. Berkeley: University of California Press.
- Boroditsky, L. (2010). Lost in translation. *Wall street Journal*. July 24, 2010.
- Cance, C. (2009). Stimuli, Dispositifs expérimentaux et Mondes construits. In D. Dubois (éd.), *Le sentir et le dire : concepts et méthodologies en linguistique et psychologie cognitive* (pp. 107-136). Paris: L'Harmattan.
- Croft, W. (2009). Toward a social cognitive linguistics. In V. Evans & S. Pourcel (ed.), *New directions in cognitive linguistics* (pp. 395-420). Amsterdam : John Benjamins.
- Dubois, D. (éd.). (2009). *Le sentir et le dire : concepts et méthodologies en linguistique et psychologie cognitive*. Paris: L'Harmattan.
- Dubois, D. & Cance, C. (à paraître). Noir c'est noir ? De l'inscription discursive du sens lexical à la liberté des mots de couleur. In L. de Saussure & A. Rihs (éds), *Etudes de sémantique et pragmatique françaises*. Berne: Lang.
- Dubois, D. & Cance, C. (2009) Mettre un terme aux couleurs de base : déconstruction d'un paradigme dominant. In D. Dubois (éd.), *Le sentir et le dire : concepts et*

- méthodologies en linguistique et psychologie cognitive* (pp. 75-104). Paris: L'Harmattan.
- Evans, N. & Levinson, S. C. (2009). The myth of language universals: Language diversity and its importance for cognitive science. *Behavioral and Brain Sciences*, 32, 5, 429-492.
- Evans, N. & Wilkins, D. (1998). The knowing ear: an Australian test of universal claims about the semantic structure of sensory verbs and their extension into the domain of cognition. Köln: Institut für Sprachwissenschaft. 63pp. (*Arbeitspapiere von Institut für Sprachwissenschaft Universität zu Köln* (Neue Folge) ; 32)
- Foley, W. (1997). *Anthropological linguistics*. Malden/Blackwell: Cambridge University Press.
- Geeraerts, D., Kristiansen, G. & Peirsman, Y. (eds.) (2010). *Advances in Cognitive Sociolinguistics*. Berlin-New York: Mouton de Gruyter.
- Gibson, J. J. (1979). *The ecological Approach to visual Perception*. Boston: Houghton Mifflin.
- Giessner, S. R. & Schubert, T. W. (2007). High in the hierarchy: How vertical location and judgments ..., *Organizational Behavior and Human Decision Processes*, 104, 30-44.
- Glynn, D. & Fischer, K. (eds.) (2010). *Quantitative Cognitive Semantics: Corpus-Driven approaches*. Berlin: Mouton de Gruyter.
- Guastavino, C. (2009). Validité écologique des dispositifs expérimentaux. In D. Dubois (éd.), *Le Sentir et le Dire. Concepts et méthodes en psychologie et linguistique cognitives*. Paris: L'Harmattan.
- Guastavino, C., Katz, B., Dubois, D. & Polack, J-D. (2005). Ecological Validity of Soundscape Reproduction. *Acta Acoustica*, 91.
- Hutchins, E. (1995). *Cognition in the wild*. MIT Press: Cambridge.
- Kukla, A. (1988). Cross-cultural psychology in a post-empiricist era. In M. Bond (ed.), *The cross-cultural challenge to social psychology* (pp. 141-152).. Newbury Park, CA: Sage.
- Lucy, J. (1997). The linguistics of "color". In C. L. Hardin et L. Maffi (eds), *Color Categories in Thought and Language* (pp. 320-346). Cambridge: Cambridge University Press.
- Majid, A. & Levinson, S. C. (eds.) (2011). The senses in language and culture [Special Issue]. *The Senses & Society*, 6, 1.
- Misra, G. & Gergen, K. (1993). On the place of culture in psychological science. *International Journal of Psychology*, 28, 2, 225-243.
- Mondada, L. (éd) (2005). Espace, Inter/action & Cognition. No spécial de la revue *Intellectica*, 2-3, 41-42.
- Paveau, M-A. (2006). *Les prédiscours. Sens, mémoire, cognition*. Paris: Presses Sorbonne Nouvelle.
- Rastier, F. (2006). *Semantics and Cognitive Science*. Paris: Presses: Universitaires de France.
- Roberson, D., Davidoff, J. et al. (2005). Color categories in Himba : Evidence for the cultural relativity hypothesis. *Cognitive Psychology*, 50, 378-411.
- Sinha, C. (2007). Cognitive linguistics, psychology, and cognitive science. In D. Geeraerts & H. Cuyckens (eds.), *Handbook of Cognitive Linguistics* (pp. 1266-1294). Oxford: Oxford University Press.
- Suchman, L. A. (1987). *Plans and situated actions - The problem of human-machine communication*. Cambridge: Cambridge University Press.
- Temmerman, R. (2000). *Towards new ways of terminology description : the sociocognitive approach*. Amsterdam-Philadelphia: John Benjamins.
- Varela, F., Thompson, E. & Rosch, E. (1991). *The Embodied Mind: Cognitive Science and Human Experience*. Cambridge, MA: MIT Press.
- Wierzbicka, A. (2008). Why there are no « colour universals » in language and thought. *Journal of the Royal Anthropological Institute*, 14, 403-421.