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Pragmatic vs. Grammatical Mode: Utterance Internal Hierarchy (UIH) in Hebrew and beyond¹

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The following is part and parcel of *LUIT: Language – a Unified and Integrative Theory*, which I've been developing for twenty years now, with a first sketch published in 2007. An enlarged version is online under the name *Principia Linguistica*. It consists in assembling the puzzle of language. Language being the defining property of *Homo sapiens sapiens*, a theory of language is a theory of our species. In a nutshell, my conclusions are that grammar is but a part of language, and not the most important one, more specifically, in the dichotomies *discourse vs. grammar*, *non-segmentals vs. segmentals*, *iconic vs. symbolic*, *pragmatics vs. morphosyntax*, *communication vs. categorization*, *deixis vs. conceptualization* and their linguistic expressions, i.e. *deictics vs. nouns*, it is the first element that primes, precedes and is more fundamental than the second, at the opposite of what classic linguistic has been claiming from de Saussure through Chomsky to our day. Therefore, in spite of the respect due to my colleagues, our analyses differ in more than one way.

Terms convey meaning. In this context, the term 'information structure' is inadequate. First, we do not transmit pre-existent information but select it and to an extent, create it. It is not objective information but a *subjective* choice of possibilities which are more or less in adequacy with some external reality. It is all the more so as the mode of communication we are dealing with is pragmatic-deictic, hence highly subjective, spontaneous, affective and oral as compared with the grammatical-semantic one. In the former we deal not with *sentences* but with *utterances*, which consist in the communicative function *rheme* (the theme being often implicit), *not* in the syntactic components subject-predicate. We are in a pre-grammatical mode in which *utterances*, not sentences, have an *internal hierarchy*, not a structure. Secondly, this mode of communication is highly inter-subjective and context-dependant: the relative importance of components and even their very meanings are negotiated between the dialogic

¹ Abbreviations: ABS - Absolutive, ACT - Actant, Ag-Agent, ALL - Allative, ASP - Aspect, AUX - Auxiliary, COM - Comitative, CONJ - Conjunction, DAT - Dative, DC - Deictic, DEF - definite, DIR - Directive, ERG - Ergative, F - Feminine, FUT - Future, GEN - Genitive, IDF - Indefinite, IMV - Imperative, IPF - Imperfect, INST - Instrumental, LOC - Locative, M - Masculine, NOP - Non-Person, PASS - Passive, PCP - Participle, PF - Perfect, PL - Plural, PRET - Preterite, REFL - Reflexive, REL - Relative, SG - Singular, SUBJ - Subjunctive.

parts during interlocution and neither in this sense are we dealing with some objective, context-free information. Finally, the term *structure*, in linguistic parlance, is related to binary oppositions whose first member is clearly more important than the second, such as *arbitrary vs. motivated*, *syntagmatic vs. paradigmatic*, *langue vs. parole*, *synchrony vs. diachrony*, *competence vs. performance*, *statics vs. dynamics* and *description vs. explanation*. The scientific paradigm the term ‘structure’ relates considers language as a formal device of mathematical inspiration. Utterance Internal Hierarchy oppositions on the other hand, henceforth UIH, are scalar, and the core concepts are *function*, *dynamics*, *evolution*, *interaction*, *medium*, *context*, *tendencies*, of biological inspiration. If the term structure is of any relevance here, it relates to that of the phonation organs and the language dedicated areas in the brain, yet even in that respect *structure* is second to *function*. To quote Lamarck (1806) ‘les usages créent les formes’, namely *it is usage that creates form*, or, in more modern terms, it is function that creates the organ.

The dynamics of language involves not only diachrony, but also, among others, ontogeny, phylogeny, creology and register variation. Not only do topic-first utterances exist in Hebrew in all of its diachronic layers and synchronic registers, but they are all the more present inasmuch as the dialogic, emotive, communicative, oral and context-dependent factors gain in importance at the expense of rational, conceptual, written and context-free parameters. These statements are valid, presumably, for language as such through all of its particular manifestations, i.e. languages. Moreover both linguistic and extra-linguistic evidence, taking in account pragmatic, prosodic, morpho-syntactic, typological and psychological factors, shows that the topic-first utterances do not necessarily result from the dislocation of grammatical sentences previously constructed. Indeed terms such as *dislocation*, *left* and *right* are inadequate inasmuch as they imply the precedence of syntax over pragmatics and of the graphic representation of language over its real nature, which is oral, multidimensional and cognitive. Rather than being fixed in graphic space it *happens* in time, just like music: no one would say that in a musical work, the theme is on the right and the variations on the left. Language is not dynamic only as a phenomenon, even its actual manifestations *work* dynamically and each one of them reflects the properties of language as a whole. Hence, language is a fractal. Terms such as ‘*grammar* or *structure* of information’ are misleading inasmuch as they imply a *construction*, while the *raison d’être* of the theme-first utterances is reflecting a natural iconic pragmatic order independent of the constraints imposed by the structure of the language in which those utterances are produced. Theme-first and rheme-only utterances are often context-dependent and spontaneous or urgent respectively and as such

they require and allow for a relatively little encoding and decoding effort, while grammatically well-formed sentences must conform to rules, especially of word-order and agreement. There is indeed an affinity between all the dynamic parameters just mentioned, which is too consistent to be imputed to coincidence alone. Quite the opposite: as they are founded on pragmatic and communicative factors, *theme-first* or *rheme-only* utterances precede their syntactically so-called well-formed, *i.e.* grammatical vis-à-vis. It is not with structure that we're dealing but with its absence, and not with the elaborate order characteristic of grammar but with the entropy characteristic of pragmatics; in other words with pre-grammatical utterances, in which the central part is played by iconic, archaic and strongly biologically motivated mechanisms such as prosody and position, not by late-acquired and late-evolved, relatively non-motivated and symbolic mechanisms such as morphological marking and syntactic order. Thus, if an utterance begins with the rheme, it is due to the urgency needed to treat it in real context and real time; in such cases, the rheme has the prominent position in the intonative contour while the theme is implicit or mentioned after the rheme in a lower pitch, which iconically reflects its lesser importance.

These views, which ultimately connect to the biological nature of language and its speakers, are opposed to the $\delta\omicron\xi\alpha$ both in General linguistics (Lambrecht, Blanche-Benveniste, &c.) and in Hebrew linguistics (Blau 1958, Ornan 1969, Tzadka 1980, Azar 1983, Bar 2003). In General linguistics, a view close to mine is found in Séchehaye (1926) and Ochs (1979). In Hebrew and Semitic linguistics it is found in Bravmann (1944, 1953), according to whom the theme-first utterances parallel interrogative ones, so that the theme is equivalent to a question and the rheme to the answer. In conditionals, the protasis is thematic and the apodosis rhematic (Haiman 1978).

I will show (a) the correlations between prosody and pragmatic constituent position as far as UIH is concerned, and the iconic link between them, prosody referring to two different parameters which are rhythm and melody, and pragmatic position being quite distinct from syntactic word order, (b) that those factors override and determine grammatical forms and roles, not the other way round; (c) that the relative importance attributed to each part of the utterance, as well as its communicative and expressive values, depend first and foremost on the speakers intention, idiosyncrasy, state of mind, context, relative urgency and the like, and that grammar is not the starting point of speech, in other words that the grammar-first hypothesis is dead wrong and that there is no dislocation, and if there is one, it is grammar that results from the codification of dislocations, moreover that grammatical diachronically successive dislocations change, but that pragmatic component position does not. UIH is what it is about, and not IS since the communication mode we are dealing with is

pragmatic-deictic, not grammatical-semantic. Let us look at some examples (intonative contours are noted by upward or downward arrows and pauses by brackets; bold – interlocutive devices, italics - colloquial devices):

Contemporary Hebrew

1. *ḥayyim* *štauber* *ha-ze* ↑] *ḥabal* *še-lo?* ***pagaš-ta*** ?ot-o ↓]]
 H. S. def-dc pity rel-non meet,pf-2sg.m acc-np.m
 ‘That Haim Stauber, it’s a pity you didn’t meet him’ (Grossman 44)
2. *ha-yald-a* *ḥaki* *yapa* *b-a-gan* ↑] *yeš* *l-ah* *ʕeyn-ayim* *ḥaki* *yap-ot* *b-a-gan* ↓]]
 def-child-f spl beautiful in-def-garden there is to-np.f eye-du spl beaut.-pl in-def-garden
 ‘The most beautiful girl in the kindergarten, she has the most beautiful eyes in the kindergarten’ (Geffen)
3. ***ha-ben*** ***šel-ka*** ***boʕaz*** ↑] *kbar* ... *qara* *še-ha-baḥur* *yarad* *me-ha-mesila* ↓]]
 def-son of-2sg.m B. already arrive,pf-np.m. rel-def-guy leave,pf-np.m of-def-way
 ‘Your son Booz, it has already happened that the guy lost control’ (Oz Q 53)
4. ***w^e-ha-yeled*** ↑↑]] ?eyk ***hi-Slaḥ-ta*** *l^e-ha-bi?* ?et *ha-yeled* ↑↑]]
 et-def-enfant how caus-traverser,pf-2sg.m à-caus-venir acc def-enfant
 ‘And the kid? How did you manage to fetch the kid?’ (Grossman 163)
5. *ʔaḥal* ?a *h^aba* ↑] ***še-tedaʕ*** ***l^e-ka*** ***šejnfeld*** ↑] *Sariḳ*
 but love rel-2-know,fut to-2sg.m Schönfeld need
liproT ?ot-ah *li-gruʕ-im* ↓] *lo?* *laḥ^asoḥ* *kol-kak* *gadol* ↓↓↓]] (Shalev, 307)
 cut acc-np.f to-cent-pl no to-think so big
 ‘But love, you may as well know, Scheinfeld, you have to split it into small change, don’t think so big’
6. *li-gdol* ↑] *zot* *lo?* *ha-mila* *ha-n^ekon-a* ↓] *b-a-miqre* ***šel-ka*** ↓]]
 to-grow up dc,f. no def-word def- exact -f in-def-case of-2sg.m.poss
 ‘Growing up is not the right word in your case’ (Oz Q 46)
7. *le-ʔkol* ↑] ***ʔni*** ***ʔakal-ti*** *ʕsaḥ-im* ↓]] *w^e-mayim* ↑] ***ʔni*** ***šati-ti*** *me-ha-nahar* ↓]]
 to-eat I eat-1sg.pf weed-pl and-water I drink,pf-1sg from-def-river
 ‘As for eating I ate weeds, and water I drank from the river’ (Shalev 29)
8. ***ʔat*** ↑] ***ḥašaḥ-ti*** ***še-ʔat*** *ḥaḥer-a* ↓ ***šel-i*** ↓↓↓]]
 you think,pf-1sg rel-you friend-f of-1sg.
 ‘You? I thought you were my friend !’ (Linor 163)
9. *belgia* ↑↑]] *a ken*] *lipnej* *ḥod^eš-ajim* ***qabar-ti*** ?et *ha-melek* ***šel-akem*** ↓↓↓]]
 B. ah yes before month-du. bury,pf-1sg acc def-king of-2pl
 ‘Belgium? Oh yeah, a couple of months ago I buried your king’ (Pres. E. Weizmann, 29/12/94)
10. *ha-limudey* *qodeš* ↑]] ***ʔni*** *biklal* *lo?* *m^eʕunyan* ↓]] *w^e-baḥur-ot* ↑]] *lo?* *roʔ-*im** *po* ↓]]
 def-study-pl.t.cns sacred I at all no interested and-girl-pl.f no see-ppc, m.pl here
 ‘The holy studies I’m not interested (sic), and girls you don’t see here’ (Oz)
11. *b^e-ʕerek* *šiš-im* *ʔaḥuz* *mi-ma* ***še-katab-ta*** ↑] ***ʔni*** *day* *maskim* ↓]]
 en-value six-pl percent of-what rel-write,pf-2sg.m I enough agree,pr
 ‘About sixty percent of what you say I agree’ (Oz)

12. ?išša b^e-herayon ↑] yeš l-ah šig^efon-ot ↓ w^e-Sarik I^e-hit-*hašeb* ↓]]
 Woman in-pregnancy there is to-np.f whim-pl and-need to-rfl-think
 ‘A pregnant woman has whims, one must take into account (sic)’ (Shalev 289)

Mišnaic Hebrew

13. *haṭān* ↑] *ṭimrāSā* li-qroṭ q^eriʔ-a-t š^emaʔ lajlā hā-riʔšo:n ↑] *qoreʔ* ↓]]
 groom if want,pf-np.m.sg to-call call-f-cns š^emaʔ night def-first read,pcp
 ‘A bridegroom, if he wants to call the šma’ in the wedding night, [he] calls’ (B^era^ot b 47-48)

14. *kerem* še-*hārab* ↑] *ṭim* yeš b-o I^e-laqqeṭ *fefer* g^epān-im
 vineyard rel-ruin,pf if there is in-np.m.sg to-collect ten grape-pl

I^e-*beyt* s^eʔā ↑]... *h^arey* ze ni-qraʔ *kerem* dal ↓]]
 to-house seʔa then it pass-call,pcp vineyard poor
 ‘A ruined vineyard if one can collect ten grapes for a s^eʔa ... is called a poor vineyard’ (Kilʔayim 541)

15. *bānā bayit* *hādāš* ↑] w^e-qānā kel-i:m h^adāš-i:m] ʔomer bāruk še-he-*haya*-nu]]
 build,pf house new and-buy,pf tool-pl new-pl say,pcp bless,pcp.pass rel-caus-live,pf-1pl
 ‘[He who] built a new house and bought new tools says: *Blessed be He who made us live*’ (B^era^ot 9, 42-43)

Biblical Hebrew

16. *hā-ʔāreS* ʔ^ašer *ʔattā* šokeb ʔāley-hā ↑] I^e-*kā* ↓ ʔe-t^enenn-āh]]
 def-land rel. 2sg.m. lay, part.sg.m. on-np.f. to-2sg.m. 1sg.-give,impf.-np.f.
 ‘The land upon which you lay - it is to you that I shall give it’ (Gn 28, 13)

17. *y^ehuḏā* ↑] *ʔattā* ↑↑]] **y-odu-kā** *ʔaḥ-ey-kā* ↓]]
Judah 2sg.m. np.pl.ipf.-thank, qal-2sg.m. brother-pl.-2sg.m.
 ‘Judah, you – your brothers will thank you’ (Gn 49, 8)

18. **kullā-nu** ↑] b^en-ey ʔiš ʔeḥād ↓↓ **naḥnu**]]
all-1pl son-pl.-cnst. man one we
 ‘All of us – the sons of one and the same man are we’ (Gn 42,11)

19. *ʔ^aSa-t* ʔ^aḏona-y ↑] hi:ʔ ↓ tā-qu:m]]
counsel-f.cns Lord she 2sg.f-prevail
 ‘The counsel of the Lord, it will prevail’ (Prv 19, 21)

20. **ʔānokī** ↑] **ʔānokī** ↓ hu:ʔ] moḥe **p^ešāf-ey-kā** I^e-**maʔn-i** ↓]]
1sg 1sg np.sg.m. delete,pcp.m.sg crime-pl-cns-2sg.poss to-sake-1sg
 ‘As for myself, it is I, the one who deletes your crimes for my sake’ (Is 43, 25)

(The last example shows that the np.pr. is not a copula since this is a verbal sentence: the same np.pr. functions in exactly the same way in noun-sentences. A second proof is from the following example, in which the np.pr. does not agree in person with the subject. The np.pr. is a focalizer of the preceding element, nothing else. It is a discourse marker, not a syntactic marker)

21. *ʔerwa-t* ʔiššā w^e-*bitt*-āh ↑] loʔ I^e-**galle** ↓]]
nudity-cns woman and-daughter-np.sg.f.poss no ipf.2m.sg-discover
 ‘The nudity of a woman and her daughter, you shall not discover’ (Lev 18, 17)

22. *ha-šām-ayim* ↑] *šām-ayim* lā-ʔ^aḏonay ↓]] w^e-hā-ʔareS ↑] nāṭan li-*bney* ʔāḏām ↓]]
def-sky-du.t. sky-du.t. to-Lord and-def-earth give, qal.pf.nop.m.sg to-son,pl.cnst A.

'The sky [is] sky for the Lord, and as for the Earth, he gave to Mankind'

(Ps 115, 16)

A typological comparison will illustrate the little relevance of grammatical concepts as far as communicative functions are concerned.

Arabic (classical, Wright, III, § 120)

23. zajd-u-n ↑] žiʔ-a žila-yh-i bi-kita:b-i-n ↓]]
Zayd-nom.-def. arrive, pass.,pf.-nop.sg.m. towards-nop.sg.m.-gen. loc.-letter-gen.-def.
Zayd, a letter was brought to him

Latin

24. Mercator Siculus quoi erant gemin-i fili-i,
Merchant Sicilianrel be, pret twin-pl son-pl

e-i surrupt-o alter-o mor-s optig-it
nop.sg-dat pass-dat one of them-abl death-nom seize-nop.sg.pret
'A Sicilian trader, who had twin sons, to him death seized one and he was deprived of him' (Plaut.Men. Arg. 1,2)

Spanish (Argentine, PK)

25a. **Dec-i-le** lo que **quier-a-s** ↓]]
say-impv.2sg.-nop.sg.3act. pr.n. rel. want-subj.-2sg.
'Tell him whatever you want'

25b. **Vos** ↑] **deci-le** lo que **quier-a-s** ↓]]
2sg. dire-impv.2sg.-nop.sg.3act. pr.n. rel. want-subj.-2sg.
'You, tell him whatever you want'

Quechua (Santiago del Estero, Argentine, PK)

26. trincheras ↑↑]], yayku-q ka-ra-nku kabažu-s-pi ↓] punchaw-an ↓↓]]
country festival enter-ptcp. be-pret.-nop.pl horse-pl.-loc. day-instr/com
The country festival, one went there on horseback, early in the morning

Badaga (Pilot-Raichoor 1991, Actances 5, p. 98)

'L'organisation de la visée communicative qui s'exprime par des variations d'intonation [...] joue un rôle important dans cette langue que nous ne pouvons appréhender qu'à travers son oralité [...] il y a souvent, en tête de l'énoncé, des éléments thématiques sans marque [...] repris par des des substituts précisant leurs fonctions'.

27. Chaque client ↑] **on** fait quelque chose de particulier ↓]]

28. Li quens Rollant ↑] il est mult irascut ↓]]

29. Il est garagiste]]. **Moi** ↑, les garagistes ↑, je me méfie ↓]]

30a. **Mon** voisin ↑] il est toujours malade ↓]] (Di Cristo p. 211)

30b. **Mon** voisin ↑↑]] Il est toujours malade ↓ ↓]] (Question, Di Cristo p. 211)

Conclusive evidence is found in ergative languages. In accusative languages like German, Arabic, Quechua, &c., the only actant of the mono-valent verb (let it be Z) is marked as the first actant of the bi-valent verb (X), and both are at what is commonly called the nominative case. It is the second actant of the bi-valent verb (Y) which has a differential mark, commonly called the accusative case. Thus, in German *Ich bin da* 'I'm here' and *Ich habe einen Mann gesehen* 'I have seen a man', Z and X are marked likewise, and there is

no positive morphological evidence to conclude that either is a topic as well; it is Y, either directly or on an adjunct, that is marked differentially (*cf.* German *einen Mann*). In ergative languages, on the other hand (without entering subtleties of split or of syntactic vs. morphological ergativity) the only actant of the monovalent verb (Z) is marked as the *second* actant of the bi-valent verb (Y), and both are at what is commonly called the absolutive case. It is the first actant of the bi-valent verb (X) which has a differential mark, commonly called the ergative case, thus:

	<u>Accusative languages</u>			<u>Ergative languages</u>		
Monovalent verb	Z _{nom}	Vb _z		Z _{abs}	Vb _z	
Bivalent verb	X _{nom}	Vb _x	Y _{acc}	X _{erg}	Vb _y	Y _{abs}
Identity of mark	Z = X ≠ Y			Z = Y ≠ X		

These are the Basque equivalents of the above German sentences:

Basque

31. Ni-∅ hemen naiz
 1 sg-abs this-loc be, 1sg
 'I am here'

32. Ni-k bat gizon-∅ ikusi dut
 1 sg-erg one man-abs see 1sg.1act-aux- np.sg.2act
 'I have seen a man'

The subject *ni* 'I' is marked differently when its is agentive (*ni-k*) and non-agentive (*ni-∅*); the object is marked like the non-agentive subject (*gizon-∅*). If we find an X in initial position which is not marked by the ergative case, we shall have positive morphological evidence that X is not a syntactic subject but a pragmatic topic. It cannot be the result of dis-location, otherwise we would have to suppose a morphological mark added then deleted: this would be incoherent with the communicative aim as well as with the types of contexts, registers and speakers that abound in topic-head utterances, *cf.*

Basque

31. Ni-∅ hemen naiz
 1 sg-abs this-loc be, 1sg
 'I am here'

32. Ni-k bat gizon-∅ ikusi dut
 1 sg-erg one man-abs see 1sg.1act-aux- nop.sg.2act
 'I have seen a man'

(dialect of Soule, France; Coyos 2002)

33a. Haurr-e-k zopa-∅ jan-ik d-u-e
 child-pl.def-erg soup-abs eat-pf aux (ukan=have)
 The children have already eaten the soup

33b. Zopa-∅ haurr-e-k jan-ik d-u-e
 soup-abs child-pl.def-erg eat-pf aux (ukan=have)
 The soup, the children have already eaten it

33c. Haurr-ak zopa jan-ik d-i-ra
 child-pl.def.-abs soup-abs eat-pf aux (izan=be)
 The children, the soup, they have already eaten it

Esquimau (Tunumisuit dialect; Mennecier 1991)

34a. piniaktu-p iqni-ni pitaatta-mi tuni-va-a/
 hunter-erg son- abs knife-instr give-2act-he>him
 The hunter gratifies his son with a knife

34b. piniaktu-p iqni-mii pitaatta-q tuni-ip-pa-a/
 hunter-erg son- all knife-abs give-der-2act-he>him
 The hunter gratifies his son with the knife

34c. piniaktu-q iqni-mii pitaatta-mi tuni-si-vu-q/
 hunter-abs son- all knife-instr give-subj-2act-he>him
 The hunter, he gratifies his son with a knife

Naturally, the initial element is not assigned the ergative case only to be deprived of it as soon as it is supposedly dislocated. This would imply a chain of operations that would annihilate each other; moreover this waste of energy and calculus time would be possible in an unconstrained chain of rational and grammatical operations, while it is in situations of spontaneous, affective, immediate and dialogic, strongly context-dependent communication – especially in child language – that topic-first utterances abound. They are proper to oral rather than written language. This conclusive morphological evidence found in ergative languages is but the overt expression of a situation prevailing in accusative ones too, where it is morphologically covert given the equal non-marking of agentive and non-agentive thematic subject. Inasmuch as the agent supposed to have been dislocated in order to be thematized is in the initial position but at the unmarked case, the pragmatic function overrides the syntactic one. Besides, beyond morphological and syntactic factors, prosodic parameters also converge in all the languages examined, which also induces a strong presumption as for the first and primordial nature of that kind of factors as compared with the syntactic one. Moreover those parameters manifest an iconic rapport between position and rôle, especially, if the utterance be binomial, between initial position and support function.

As for the rheme, it is the most important part of the utterance from the communicative point of view. In other words, it is at the prominent part of the informative contour. It tends to be in final position, which is the cognitively privileged one as the item that occupies it is more likely than those on non-final position to be stored in memory, processed and reacted-to in real time. Incidentally, this is also the reason for Zip's law, according to which in a

string of otherwise equivalent items, the phonologically heavier one comes after a lighter one in the spoken chain. Iconically, the rheme, which is so to say heavier from a communicative point of view, tends also to be at the salient part of the intonative contour; it follows that it cannot be clitic, *cf.* in English

35. A. It's none of my business... [ɪtsnʌnəvmaj'bi:zn̩s ↓]
 B. It *is* none of your business [ɪt'i::znʌnəvyo:'bizn̩s ↓↓]

36. A. John: Gosh!

37. A. John: Did Lucy eat the cake?
 B. Mary: *I* did!

38. JD: You live here, don't you? [ju:lrvhi:r ↓ dontju]
 NW: Who lives...?! [hulr::vz ↓]

(35) is a piece of dialogue by R.H. Davis ('Deserter', p. 542). In (35A) the rheme is *none of my business*. It is this part which is communicatively most important, therefore, it is at the salient part of the intonation contour as well. The verb *is* only fulfills the syntactic rôle of copula; therefore, it can be abridged and cliticized. In (35B), however, the focus is the nexus itself, i.e. the fact that it *is none of his business*. The verb *is* no longer plays the rôle of a copula: it is the focus, the important element, therefore it is also, iconically, at the intonation salient part; its vowel is not contracted but expanded: that is why it is not clitic. (36) is not a sentence but a mono-syllabic one-element utterance: its only element is the rheme. Albeit syntactically non-analysable, it has prominent communicative, pragmatic and intonative values, all of which are iconically linked. *And* it does not convey any information but the speaker's reaction. In (37), B's utterance has the subject in initial position, which in English is thematic. It is, however, on the salient part of the intonation contour: therefore, despite its syntactic rôle and position, it is interpreted as utterance's rheme. This is even clearer in (38), a piece of dialogue from 'Rebel without a cause'. In James Dean's question, the theme is *you* and the rheme is *here*, the verb 'live' being little more than a copula. In Nathalie Wood's answer, however, 'live' is placed at the intonational prominent part by the length of its vowel: all of a sudden, it gets communicative primacy as well, and becomes the semantically and pragmatically charged rheme of the utterance. This is yet another proof of the highly iconic, pragmatic and ultimately biological nature of the expression of the rhematic and thematic functions: the theme can be dispensed with altogether, while the rheme on the other hand, cannot even be clitic. Both functions are at the two poles of one and the same continuum. Such examples prove the inadequacy of treating it in grammatical terms, all the more so as they are based on graphic, spatial and bi-dimensional representations of a

reality which is auditive, temporal and multi-dimensional. Now linguistics is a natural science: its tools should be in adequacy with the objects it describes and analyzes. Current graphic representations are not suited to this task, even if they prove useful otherwise.

All this also shows that in communicative and pragmatic factors, expressed primarily by intonation, prosody and pragmatic constituent order, form and content are narrowly interwoven, and that those factors and their linguistic expressions override and determine morpho-syntactic forms and rôles, not the other way round.

Intonation-prosody: subsegmentals

Bolinger (passim) Hirst et Di Cristo (1998) and more recent work insist on prosody without seeing its central importance in real communication nor its first position as compared with that of segmental phonemes. Lieberman (1991) addresses the subject from a biological viewpoint and Meschonnic (1981) from a poetical viewpoint, yet they both consider them as supra-segmentals just as the phonology of Prague since Trubetzkoy (1938), cf. Lehiste (1970). Now this point is of the utmost importance from a linguistic viewpoint. Intonation, which links psycho-physiological, pragmatic, syntactic and phonological factors, is a fundamental mechanism of language which has correlates, among others, to UIH. Thus, the rhematic element tends to be at the prominent part of the intonative contour and of what we may call the communicative contour as well. This is a manifestation of iconicity; moreover whenever grammatical or lexical structure and intonative parameters disagree, it is the prosodic data that prevail. Thus, an element placed at the prominent part of the intonative contour is perceived as rhematic, even if its position is the one devoted to the theme; lexically too, a depreciative expression pronounced with a positive intonation will be perceived as positive and so on. An utterance like: *how clever*, if uttered with a mocking intonation, means the opposite of its face value. A corollary is that utterances supposedly ambiguous, which only intonation can disambiguate, are not ambiguous to begin with. A picture of a horse can be considered ambiguous inasmuch as it can also represent a mare, but the real animal is by no means ambiguous : it is either one or the other. Prosody is as fundamental a component of an utterances as sex is for the higher animals. The link between question or condition, thematic function, intonative contour and prosodic pause is all the more salient when one and the same element is either interrogative or conditional and thematic when it is at the basis of an ascending contour and followed by a pause **or** exclamative-mirative and even negative when it is at the prominent part of the contour and not followed by a pause depending on intonation: this is the case of /ma/ in Hebrew and Semitic but also of *que* in

Spanish, etc. (Kirtchuk 2005). The fact that UIH is established greatly thanks to prosody shows to which point this mechanism is prior and more fundamental than the syntactic ones; in other words, it shows that in theme-first or rheme-only utterances no dislocation whatsoever takes place, but that positions are attributed according to communicative importance and not following a grammar-dependent syntactic order. If anything, it is syntax that results from the ritualization of dislocation, not the other way round. This is related to the precedence of pragmatics over syntax and of discourse over grammar.

A new element requires more time, more intellectual operations and more energy in order to be interpreted, memorized and reacted to, i.e. to integrate a set of elements acquired previously, it has therefore to as close as possible to the point where the utterance ends and turns to the one who does the interpretation, memorization and reaction, namely the interlocutor. Inversely, a thematic element, pragmatically known, can be far behind, at the beginning of the utterance. Grammatical considerations are irrelevant. Accordingly, theme-first and rheme-only utterances precede the syntactic arrangement of the linguistic material, they are not a modification of it. It is inadequate to treat them in a framework which is mostly or principally syntactic, especially inasmuch as syntactically the subject or another syntactic role may be obligatory, depending on the grammar, while it is for the sake of the rheme, whatever its syntactic role, that the utterance exists in the first place. There are two competing motivations to begin the utterance by the old or the new information: urgency and contextualization. When one begins the utterance with the rheme, the theme is given by the context or is otherwise shared knowledge; in such cases, the utterance will be most probably *monorème* (cf. Séchehaye 1926). If however the context has to be mentioned, it comes first, in order for the new information to be understood as salient on that particular context, i.e. for the new information to be correctly interpreted, it has to have a background against which it will be relevant: that background is the theme. In neither case is there dislocation, in other words, there is no manipulation of a previously established syntactic structure, of the type SOV, VSO or the like – and not only because two errors of that approach: mixing up parts of the sentence, S and O, with a part of speech, Verb, and implying that language as such displays the verbal category as such. The Arab grammarians of the first centuries of the Hijra (Sibawayhi, &c.) had a profound linguistic intuition and seized the difference between syntactic and communicative factors: they parsed the noun-sentence into /mubtadaʔ/ ‘beginning’ and /xabar/ ‘information’.

Grammaticalization

Grammar is a process rather than a set of rules. To give but an example, the function and the emergence of the verb category, are linked;

The emergence of the verbal category results from the morphologization of the predicative relation, which in itself is nothing but the grammaticalization of the theme-rheme relation, by means of the truncation and cliticization of a personal deictic to a lexical base, in other words by a prosodic process, for saying that an element is clitic is making a phonological, more specifically a prosodic statement. Akkadian shows the emergence of a prototypical characteristic of Semitic morphology - prefixed personal indices in a new category known as verb - out of the coalescence of a nominal stem and a personal deictic. This is the diachronic process at the basis of the synchronic 'verbal nexus' as Jespersen (1924) calls it. It is diachronically documented in IE, Semitic (Bopp 1816, Cohen 1984, Testen 2004) and elsewhere. The emergence and change of syntactically determined word order is another example. Both the emergence of the verb category and the ritualization of word order are of the utmost importance for our purpose. As syntax is more flexible than morphology ('Today's morphology is yesterday's morphology', in Givón's words), linguists tend to think of syntax in terms of transformations, while morphology would be the realm of rigid tenets. But yesterday's syntax is the previous day's pragmatics and the morphologization of syntax is possible only through prosody, *i.e.* phonology. Now the fact that topic-first utterances are universal and characterized by the same pragmatic and prosodic invariants shows that at the bottom of the matter we are dealing with a radically different mode of communication as compared with the grammatical one and that it's a mistake to analyze topic-first utterances as dislocated syntax. It is not *syntactic structure* that we are dealing with, but pragmatics; not *symbolic*, *i. e.* *conceptual and arbitrary* elements, but *deictic and iconic* ones; and not *elaborated rules* but *communicatively efficient, immediate and sensible reactions* to a *rapidly changing reality*. What topic-first utterances reflect are not context-free formal rules but a natural, context-dependent order characterized by UIH. It would be interesting to explore possible affinities between UIH and evidentiality.

Parole > langue, pragmatics > syntax, discourse > grammar

I have dwelt especially on functional factors. But the origin of language and language acquisition also correspond to communicative context-dependent needs and capacities: 'The adult has never forgotten his first-acquired communicational skill, the Pragmatic Mode. He simply added onto it via the gradual rise of the Syntactic Mode' (Ochs 1979). As for phylogeny, see Kirtchuk (1993), Givón & al. (2001), etc.

Just as oral language is not a transformed, marked, deficient or deviant version of written language and just as noun-sentences (*i.e.* sentences whose predicate is a nominal or a deictic element) are *not* transformed, marked, deficient or deviant save for linguists whose mother-tongue is Indo-European (indeed it is the need for a verb or a copula which is an innovation in the languages of the world which display it), likewise topic-first or rheme-only utterances are not transformed, marked or deviant except if one departs from grammar as the starting point and the basic mode of linguistic communication. Which is wrong: the first communicative mood in ontogeny, phylogeny, diachrony, creolistics and stylistics is pragmatic, not grammatical, and this mood is by no means forsaken when the grammatical mode enters the scene; grammar is the ever-changing systematization and ritualization of communication (Hopper) as well as an automated device for processing information (Givón) and as such it is an output, a by-product of linguistic communication, not its input. In Ochs (1979: 52) words *'Becoming more competent in one's language involves increasing one's knowledge of the potential range of structures (PK mechanisms) available for use and increasing one's ability to use them... communicative strategies characteristic of any one stage are not replaced. Rather, they are retained, to be relied upon under certain communicative conditions. The retention of emerging communicative strategies goes on not only during language acquisition but also throughout adult life'*.

It is for all these reasons that the universal mechanism devoted to UIH is pragmatic and iconic, not grammatical and symbolic; it is intonation and prosody, namely the melodic and rhythmic elements of language, which precede all the other in phylogeny as well as in ontogeny. Rhythm characterizes all dynamic phenomena (Meschonnic 1982) and melodic modulation, *i.e.* *intonation*, is the most basic tenet of animal as well as of human communication (Darwin 1872: 111, Lieberman 1991). The fact that thematization and rhematization are conveyed first and foremost by prosody and intonation says long about the real nature of those phenomena: they are of clear pragmatic, iconic and biological cut, by no means of grammatical, symbolic, and formal nature. Ontogeny goes in the same direction, and so does creolology. Theme-first and Rheme-only utterances are a return to the pragmatic mode of communication, not a deformation of the syntactic mode. In many languages the so-called third person of the verb is the non-marked member of the opposition dialogic-non dialogic. It means that at the non-person, the rhematic part is the lexical part of the verbal nexus. The thematic one is implicit: that what is spoken about is none of the dialogic persons. Language is not narcissist. In other words, what we do when we speak is communicate, *i.e.* dialogue, and only secondarily express ourselves, let alone

categorize. The fact that the minimal utterance is constituted of a rheme (and not a theme); a rheme, not a predicate and even less a verb, is the ultimate proof that language as such exists in order to communicate, and this associates to my conception of the emergence of language at all levels. In ontogeny, grammar is the last element to be acquired and mastered, yet communication by language exists quite before that and practically since birth by means of phonetic non-segmental devices, eminently iconic and pragmatic. The newborn interprets intonation and prosody of his mother tongue 4 days after birth (Hirst and Di Cristo 1998) and probably *in utero* as well. Later, in infant language, once grammar and lexicon are acquired, the iconic and pragmatic elements continue to prime over symbolic ones; utterances of rheme only, whatever its grammatical category, as well as topic-first and of rheme in non-initial position abound, whatever the word order in the mother tongue of the infant (Ochs 1979). It is the same thing for adult language in the emotive and spontaneous register, as for the Creoles. To look for grammatical explanations for all this – let alone *formal* so-called explanations – is inadequate. Establishing UIH by iconic and pragmatic means is the canonical procedure of communication in shared context.

Another important element: the opposition theme-rheme is scalar. Mechanisms of UIH being several, different elements can have more or less properties of a theme or rheme; such criteria are position, definiteness, intonation, morphological marking, lexical marking, etc. If the non-marked thematic position is the initial one, and the rhematic one non-initial, this is not due to grammar but to biological reasons (cf. Zipf 1935).

KEYWORDS

Pragmatic mode

(Theme-)Rheme
Assymetry: R essential, T non essential
Scalar Oppositos
Hierarchy
Utterance
Non-segmentals
Prosody
Discourse
Stable through dynamic levels *
Motivated
Imposed
Iconic
Pre-rational
Biology
Explanations
Why
Tendencies
Induction / Abduction
'Hardware'
Ontogeny
Creology
Phylogeny
Oral
Parole
Performance
Spontaneous
Subjective
Communication
Interaction
Context-dependent
Concrete
Dialogic
1-2 Person (+ non-person)
Deixis
Deictics
Gestures
(Linguistic cum) Gestural
Dynamics
Explanation
Lamarck, Darwin, Bühler, Lambrecht
Bolinger, Greenberg, Givón, Daneš, Hagège
Ochs, Kimura Lieberman,
Maturana, Kirtchuk

* Onto-, Phylo- and Creology, Diachrony, Synchrony, Typology

** Grammaticalization, Diachronic change

Grammatical mode

Subject-Predicate
Symmetry: S-P = Equivalent poles
Binary Opposition
Structure
Sentence
Segmentals
Syntax
Grammar
Unstable through dynamic levels**
Arbitrary
Conventional
Symbolic
Rational
Mathematics
Descriptions
How
Rules
Deduction
'Software'
Adult Language
Systematized Language
Present-day Language
Written
Langue
Competence
Planned
'Objective'
Categorization
Thought
Context-free
Abstract
Dialogic or not
Non-Person (+ 1st and 2nd p.)
Conceptualization
Nouns
Lexemes
Solely linguistic
Statics
Description
Saussure, Jakobson, Chomsky

A caveat should be made here in order to prevent critics. When Karl Popper speaks about 'science', 'scientific theories' and the like, he speaks about physics, in which one observation can do away with a whole theory: a single apple that, once plucked off the tree, would remain in the air or raise upwards instead of falling down would annihilate the law of gravity. Yet even in physics and mathematics, Heisenberg's principle of uncertainty and Gödel's theorem of incompleteness respectively suggest that things aren't so simple. In biology they are definitely not so simple, and if need be, let me remind that language is proper to a biological being. In the realm of the living, we are not dealing with laws but with tendencies, orientations and mutations. One observes above all a constant interaction between the entity and its environment – its context – by which the first constantly adapts to the second, while modifying it at the same time; this is epigeny. It is the context which judges of the adequacy of the entity to pursue its career as a living phenomenon. For the observer, is part of the context any observed entity including him- or herself. There is indeed not only ontogeny and phylogeny, but also epigeny. Without epigeny, language as a faculty would not have emerged, and languages wouldn't change. Popper's main criterion of scientificity, namely the possibility to falsify a theory on the grounds of observation, led him as late as 1976 to proclaim Darwinism 'a metaphysical theory'. Rather than dwarfing Darwinism, it proves Popperism's pauperity as far as the phenomenon known as *life* and its expressions are concerned. Popper's approach is inadequate for biological reality. He did not grasp the essential difference between life and any other phenomenon. Moreover, as far as methodology is concerned, Popper's approach does not require that in order to be considered scientific a theory be in adequacy with theories that explain phenomena which are either akin to the one under study or contain it. PL on the other hand, including this study, is fully consistent with evolutionary biology, anthropology, psychology and is by no means popperian. Rather, it hopefully confirms Kuhn's thesis concerning scientific revolutions: determinant progress in science does not consist of cumulative linear work - although it implies it - but of successive revolutions by which an existing paradigm ends up being replaced by a radically different one.

Syntax is not autonomous, but neither are phonology, morphology and semantics; language first *raison d'être* is optimizing communication and it is as such that it emerged, out of a continuous interlocutive communication unrestricted to pre-established goals in a population of primate during tenths of thousands of generations. It is only following this function that the cognitive and categorizing functions of language and that its symbolic component developed (Maturana 1978, Kirtchuk 1993). Bühler's (1918) and Jakobson's

(1963-1982) model should be reformulated: the functions of language have to be hierarchized then completed, in short recast. Linguistics has to spouse the pragmatic turn (Quine 1951, Rorty 1982) that biology had already taken with Lamarck (1806) revised by Darwin (1859, 1872). Givon (2001, 2007), though innovative, seems too attached to classical biology, that harkens back to Aristotle, to encompass all the implications of PL.

PL refutes not only the grammatocentric, structuralist vision and all the more so its extreme version, generative grammar, which implies a pre-existence of *langue or competence* over *parole or performance* and an ideal speaker of Platonic inspiration. The Prague School approach, though it goes in the right direction, does not constitute a true revolution inasmuch as it favours syntactic facts and does not draw all the conclusions. The *Principia Linguistica* I propose, on the other hand, do not skip a single linguistic fact and comprehend all linguistic phenomena, integrating them in a larger picture, that of *Homo sapiens sapiens* as a biological species. A species whose decisive evolutionary advantage is not language as such but language as the result of continuous cooperation, which one may call unselfish behaviour (Lieberman 1991) or simply - and pray excuse this taboo word - love (Maturana 1978). It is not Plato nor Aristotle that it relates to but Martin Buber's tradition resumed in the dictum *Alle wirkliche Leben is Begegnung*, 'All true life is encounter'. It is not only true at the individual scale, but at the scale of the species too.

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