Meaningful Silence, Meaningless Sounds*

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Abstract
This paper discusses the very general question of how syntactic (LF) features of individual languages relate to the universal set of syntactic features. It is pointed out that Chomsky's approach (2001) to this fundamental issue is paradoxical. On one hand he argues that language is uniform in the relevant sense (L-UNIFORMITY), but, on the other hand, he also assumes that languages make different selections of features from a universal feature set (L-SELECTION). The paper argues strongly that L-uniformity is the only conceivable possibility. However, if that is correct, a great deal of what languages have is common is 'silence', that is, categories that are present in LF but silent in PF. In other words, language has innate LF elements and structures irrespective of whether or how they are overtly expressed. Conversely, language variation is to a substantial extent 'silence variation', that is, much of it boils down to languages being explicit vs silent about different (LF active) categories. This claim is coined as the SILENCE PRINCIPLE, saying that any meaningful feature of language may be non-prominent, hence silent.

1. Uniformity vs selection

The hypothesis that all languages are variations on one and the same theme, UNIVERSAL GRAMMAR – UG, is one of the most fruitful and exciting hypotheses of intellectual inquiry. Given UG, two of the central questions of linguistic research are:

A What are the features of UG – F(UG)?
B How do UG features, F(UG), relate to the features (or 'properties') of any particular language – F(L_x)?

In Derivation by Phase, Chomsky expresses his approach to Question B in two very different ways. On one hand, he suggests the UNIFORMITY PRINCIPLE (Chomsky 2001: 2):

> In the absence of compelling evidence to the contrary, assume language to be uniform, with variety restricted to easily detectable properties of utterances.

Chomsky does not explain what he means by "variety restricted to easily detectable properties of utterances"; presumably he is referring to EPP effects and morphological parameters. In any case, it is clear that he is not referring to any underlying semantic or LF differences. Thus, whatever the answer to Question A may be, we are lead to believe that all languages have the same set of LF features.

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However, Chomsky (2001:10) also suggests that languages differ with respect to their basic feature inventories:

> FL [i.e. Faculty of Language] specifies the features **F** that are available to fix each particular language L … We adopt the conventional assumption that L makes a one-time selection [F_L] from **F**. These are the features that enter into L; others can be disregarded in the use of L.

In other words, UG is or contains a universal pool of features **F**, from which languages each make their own specific selection. Thus, if UG contains {F_1, F_2, F_3, F_4, F_5, F_6}, language A might pick {F_1, F_2, F_6}, while language B might opt for {F_4, F_5, F_6}. This, however, contradicts the Uniformity Principle, that is, Chomsky's answers to Question B are paradoxical. Let us refer to these views as L-SELECTION vs L-UNIFORMITY.

2. Against selection

In spite of apparent plausibility (see e.g. Thráinsson 1996), L-selection meets serious challenges, both conceptual and empirical. On the conceptual side it is unclear, to say the least, how L-selection would proceed: why and how would a language 'decide' to make a specific selection of LF features? On the empirical side, as we shall see, there is accumulating evidence that any language has 'direct access' to any feature of UG.

The central hypothesis of the Minimalist Program is that there should be no S-structure mediating between LF and PF. The optimal solution would thus be that there is a direct relationship between a universal LF and the various expressions this system gets in different PFs of the world's languages, as sketched in (1):

(1) $UG = LF \rightarrow PF(L_x)$

On L-selection, however, the correlation between UG and different PFs is only indirect, as sketched in (2):

(2) $UG \rightarrow LF(L_x) \rightarrow PF(L_x)$

If so, the question arises why all human languages are compatible, can be translated or 'converted' despite all their apparent differences (the Code Talker Paradox, see Baker 2001). What is it that blocks any two logical forms, $LF(L_x)$ and $LF(L_y)$, say in Australia and North-America, from having 'mutated' in such different ways that they become radically incompatible or 'non-convertible'? Mathematical and other artificial languages are incompatible with natural languages and generally also with each other. Thus, a simple sentence like *John and Mary are a couple* has no mathematical translation (say, '1 + 1 = 2' or 'x^2'), nor does a formula like *2 x 3 = 6* have any natural language translation like, say, 'A married couple and their three kids make a family' or a 'chess-language' translation like 'White Queen f5-f7 mates black King'. Why does this situation of incompatibility arise among artificial languages as well as between such systems and natural languages, whereas it seems *never* to arise between

any two human languages, including *all* known sign languages?[1] Given L-selection, this is nothing less than a miracle.

Children obviously acquire lexical and phonological peculiarities of their surrounding language(s). But there can hardly be any doubt that central categories like Tense, Neg(ation) and the Interrogative feature are universal, innate properties, hence not learned. If Tense, for instance, is a category that either may or may not be acquired, the average chance of finding it in a particular language should be 50%, other things being equal. Similarly, the average chance of finding e.g. both Tense and Neg should be around 25%, the average chance of finding both of these plus, say, the Interrogative and Imperative features should be around 6.25%, and so on.

This gains no support from facts. Tense, for instance, is found as a 'grammatical' category in most languages, it seems. Even the few languages that have been claimed not to 'grammaticalize' Tense, such as Burmese and Dyirbal, express it systematically (see Comrie 1985:50 ff.). And, as so succinctly stated by Horn and Kato in the opening line of their volume on negation and polarity (2000:1): "Negative utterances are a core feature of every system of human communication and of no system of animal communication."

Notice that the question of whether e.g. Neg or Tense are narrowly linguistic or more general cognitive features is not obviously crucial in this context; what matters here is that these categories are innate, hence need not – could not – be acquired. Given, in turn, that there are at least *some* innate, non-selected functional categories or features (as in Chomsky 2001), L-selection calls for a theory that details which ones have to be selected and which ones need not be. The conceptual and empirical problems that arise are non-trivial, to say the least.

3. Meaningless sounds

Human beings have a deeply rooted need or even coercion to interpret any variation as meaningful, and this is a strong trend in linguistics. Case is a case in point. There are almost innumerable studies of different case systems, aiming to reveal the 'true meaning' of specific cases or of case in general.[2] However, the morphological cases do not themselves have *any* absolute meanings but are instead varyingly ambiguous markers of underlying 'case meanings' that either may or may not have overt exponents in particular languages (as demonstrated and discussed at length in Sigurðsson 2003a). Thus, it does not make any (non-morphological) sense to say that English, for instance, lacks 'the dative case' or 'the partitive case'. It evidently has all the same underlying case semantics as its 'case-dressed' cousins, German and Icelandic, and as, say, Hungarian.

The more one studies case, the more one is inclined to believe that there are *no* underlying case differences between languages. The same seems to be true of other categories, for instance the subjunctive. English does not have an inflectional subjunctive, but it certainly has LF subjunctive, not only in examples like (3), but also in less formal examples as in (4):

(3) The police insisted that he **tell** the truth.

[1] Abstracting away from coincidental encyclopedic differences, of course.
[2] Hjelmslev (1935-37) and Jakobson (1936) are classical studies of this sort.

(4) The police insisted that he **should tell** the truth.

Icelandic differs from English in having an inflectional subjunctive, used in contexts as in (3)-(4) as well as for various other purposes. In addition, it has a logophoric long distance reflexive in certain subjunctives, as in (5); as shown, it is also possible to use an ordinary pronoun instead of the reflexive:

(5) Pétur vonaðist til að María byði **sér** / **honum**.
Peter hoped for that Mary invited.3SG.SUBJ.PAST SELF / him
'Peter hoped that Mary would invite him.'

The referent of the pronominal is viewed from the speaker's point of view, while the same referent is seen from his/her own point of view in the reflexive version, that is, from the viewpoint of a logophoric secondary ego (Sigurðsson 1990; cf. Thráinsson 1990).

Long distance reflexivization into finite subordinate clauses is cross-linguistically very rare. As most languages, English has not developed systematic means to express logophoricity. Again, however, it would be incorrect to say that English 'lacks' or has 'not selected' the relevant property; rather, it does not express it by 'grammatical means' in its Physical Form (PF).[3] It certainly *has* logophoric semantics, no less than Icelandic (for a more general discussion, see Banfield 1982).

Agreement is even more obviously 'non-sensical' than morphological case, mood and long distance reflexivization. Consider the striking fact that the very robust agreement variation illustrated in (6) for English, German, Swedish and Icelandic has no meaningful correlates, 'makes no sense' at all (agreeing forms are boldface):[4]

(6)	a.	They would be rich.	English:	-AGR, -AGR
	b.	Sie ***würden*** reich sein. they would.3PL rich be	German:	+**AGR**, -AGR
	c.	De skulle vara **rika**. they would be rich.PL	Swedish:	-AGR, +**AGR**
	d.	Þeir **mundu** vera **ríkir**. they(N.PL.M) would.3PL be rich.N.PL.M	Icelandic:	+**AGR, +AGR**

Clearly, the rich agreement found in languages like Icelandic does not express *any* meaningful distinctions that are absent in morphologically poorer languages like English.[5]

Abstract Agree *is* however meaningful or functional in the sense that it is a universal precondition on Merge (Sigurðsson in press; cf. Zwart 2003). In this

[3] I am replacing the term Phonological Form with the more general Physical Form, comprising (at least) the 'sign form' of sign languages and the 'sound form' of oral languages.
[4] See the discussion in Sigurðsson in press. N.PL.M = Nominative, plural, masculine.
[5] In contrast, of course, meaningful distinctions often relate to morphological distinctions language-internally (this is for instance the case for certain agreement phenomena in Scandinavian languages). Such language-internal relations are similar to those between diseases and symptoms: even though diseases often have diagnostic symptoms some diseases have no clear symptoms, other diseases have many, often conflicting symptoms, and, conversely, many symptoms are common to two or more diseases. See the discussion of case from this perspective in Sigurðsson (2003a).

respect, English is of course no poorer than e.g. Icelandic. Reflecting abstract Agree in morphology, on the other hand, is extravagance, at least linguistically.[6]

We could go on like this forever. The fact that a language does not express a certain feature in its Physical Form does not mean that the feature is absent from its Logical Form:

- The fact that Russian and Arabic do not have a copula in the present tense, does not mean that clauses like *Boris glup* 'Boris [is] stupid' or *Omar muʕəllim* 'Omar is a teacher' (from Benmamoun 2000:3) lack tense and finiteness.
- The fact that e.g. Japanese, Russian, Serbo-Croatian (and most other Slavic languages), Estonian and Finnish have no articles does not mean that they lack definiteness (cf. Lyons 1999; see also e.g. Chesterman 1991, Hiietam 2003, and the dicussion of cross-linguistic variation with respect to the D(et) catecory in Bošković 2003).
- The fact that e.g. the Germanic languages have no future tense inflection of verbs does not mean that these languages lack future tense.
- The fact that PRO-infinitives in e.g. English have no overt marking of tense or person does not mean that these features are semantically absent from English PRO-infinitives.

And so on, and so forth. In spite of the Chomskian 'cognitive revolution', linguistics is still heavily burdened by the positivist heritage of 20th century pre-Chomskian structuralism. In science, however, it is *not* a virtue to only believe what one 'sees'. We do not 'see' atoms, electrons or quarks, black holes or antimatter.

Linguists are accustomed to the 'Saussurean arbitrariness' of the sound-meaning pairing at the lexical level.[7] We do not generally assume that Italian *tavola* relates more naturally or directly to the meaning 'table' than Russian *stol*. In contrast, many linguists seem to strongly believe in 'sensible morphology'. However, there is no such thing. Morphology is radically 'non-sensical' in the sense that it *never* expresses *any* underlying LF differences between languages. The reason is simple: there are no such differences.

Morphological variation, seen in e.g. case systems, complex honorific systems and multiple 'gender' systems, has of course often been taken to constitute a serious challenge to language uniformity.[8] Thus, I'm sometimes asked whether I would want to claim that e.g. the indirect object of the verb *give* in English is 'dative', just as in e.g. Icelandic. The question is misleadingly formulated. Instead, we should ask: "Is the indirect object in Icelandic 'dative' in some non-morphological or deep sense that does not apply to English?" The answer to that question is unequivocally NO, as far as I can see (see the discussion in Sigurðsson 2003a). Rather, the PF case system of Icelandic overtly marks universal LF relations (or even relational complexes, that is, a series of combined relations) that are not marked in the English PF.

[6] Evidently, linguistic extravagance is socially important, depending on factors we have very little knowledge of.

[7] We often or even generally believe we 'understand' ideas and phenomena that we are merely accustomed to. Consider Chomsky's discussion (2002:59-60) of the 'hard problems'.

[8] See for instance the fascinating study of Bickel et al. (1999) of the Maihtili verb inflection system.

Consider also the fact that Fula (Niger-Congo) has "about twenty genders, depending on the dialect" (Corbett 1991:191), Icelandic has three genders, whereas Finnish has no pronominal or inflectional category of gender. Understandably, an antagonist of uniformity is tempted to ask whether this means that Finnish should be analyzed as having three or twenty underlying but silent 'genders'. Again, however, the question is misleadingly formulated. Like most other, perhaps all, morphological categories, gender is a hybrid category, reflecting various factors or features in differing 'mixtures' or 'proportions'. Thus, the Icelandic gender system is to a considerable extent a phonologically based, language-specific classificational system, applying to lexical items in PF and triggering phonological agreement processes (cf. Sigurðsson in press on agreement). However, to the extent that the Fula and the Icelandic 'gender' systems are semantically based, the relevant LF features are arguably accessible (albeit not necessarily expressed) in all languages, including Finnish.

Morphology does *not* 'make sense'. It expresses language-specific PF reflections of Universal Grammar (and, to an extent, of different lexica). That is, it relates features of LF and PF and it does so in a much more arbitrary fashion than usually assumed.

4. Meaningful silence

The central task, even mission, of linguistics is to further our understanding of the sound-meaning relationship in language, hence also our understanding of the fact that languages differ – the Babel wonder and mystery of language. However, we are never going to gain any significant understanding of this mystery unless we appreciate the seemingly paradoxical fact that the perhaps most common way of 'expressing' meaning is – by not expressing it! That is: language has innate semantic structures that have meanings irrespective of whether or how they are expressed in Physical Form.[9]

I coin this claim as the THE SILENCE PRINCIPLE. It is the basic insight I gained from learning some of the signs – and some of the silence – of Icelandic sign language:[10]

(7) Languages have meaningful silent features; any meaningful feature, 'formal' or not, may be non-prominent, hence silent.[11]

In order to prevent misunderstanding: First, this is about normal sentences in normal language use, not 'theatrical' silence or any other special 'use' of silence in

[9] As Chomsky puts it (discussing only one aspect of this fact): "… the internal conditions on meaning are rich, complex and unexpected" (2000:36). Consider, for instance, the resultative construction: *He shouted himself hoarse* (= roughly 'He shouted such that he became hoarse'), with a substantial part of the logical structure unexpressed. Consider also e.g. English *wh*-infinitives as in *How to protect yourself* (= roughly 'This is how one can/should protect oneself). As Chomsky discusses in many of his works, e.g. the above cited one, similar examples are innumerable (and many of them are much more sophisticated than these).

[10] From my very bright and funny stepdaughter, Camilla Mirja Björnsdóttir. Many, many thanks, Camilla!

[11] Notice that the PF economy of the Silence Principle is a somewhat different phenomenon than computational economy in narrow syntax (although both types of economy plausibly minimize use of energy).

communication. Second, this is of course not to say that sign languages are 'less expressive' than oral languages. To my knowledge, they are not.. But they offer striking evidence that language is internal to human beings, independently of the various external forms it takes. Thus, it is evident that numerous sign languages have emerged spontaneously, 'from nowhere'. Deaf people form isolated and small communities, often so small that their languages come into being and vanish within a short period of time.[12] In fact, the creation of a sign language has been studied and partly documented (by Judy Kegl and others, see Pinker 1994:36-37).

Also, new languages come into being as oral pidgins develop into creole, often with grammatical structures that have no predecessors in the linguistic input (as demonstrated by Bickerton 1999). A parallel fact that is not commonly acknowledged is that even 'established' languages constantly develop new traits (although such processes are very much slowed down in generally literate societies). It is a myth that grammar always loses complexity over time; we evidently notice familiar vanishing or changing structures much better than unfamiliar growing ones. Icelandic is usually taken to be an extremely conservative language. However, even this 'fossil' among languages has developed new constructions, such as the PROGRESSIVE *vera að* 'be to' construction, the INCHOATIVE *fara að* lit. 'leave to', i.e. 'begin, go to', and the recent or PROXIMATE ANTERIOR *vera búinn að* 'be (recently) done/finished to' construction, often corresponding to the perfect in related languages (see, most recently, Wide 2002):

(8) a. Ég er að læra.
I am to study
'I am studying.'
b. Ég fór að læra.
I left to study
'I began studying.'
c. Ég er búinn að læra.
I am done to study
'I have (just) finished my homework. / I'm done studying (for good).'

Moreover, these constructions combine with each other or with other aspectual constructions to form still other, 'complex aspects', such as the IMMEDIATE INCHOATIVE in (9a) and the IMMEDIATE ANTERIOR in (9b); the emphasis on the finite verb expresses 'immediate' (as opposed to merely 'proximate'):

(9) a. Ég ER að fara að læra.
I am to leave to study
'I'm on the brink of starting studying.'
b. Ég ER að verða búinn að læra.
I am to be(come) done to study
'I'm on the brink of having finished studying.'

These and other complex aspects of Modern Icelandic did not have any 'grammaticalized' exponents in earlier Icelandic, nor were they borrowed from

[12] For a general discussion of these issues, see, for instance, Corballis 1999.

neighboring languages (where they have no systematic exponents). Rather, these categories are present in LF, irrespective of whether or how they are expressed in individual PFs. In general, the absence of grammatical means to express a category in a language cannot be taken as evidence that the category itself is absent.

'Examples of silence' are both numerous and varying, across languages and also within languages.[13] Two further very simple examples follow:

Optative mood is generally a 'discreet' category in Icelandic, formally indistinguishable from the subjunctive. However, the copula has specifically optative forms (*veri hann* 'be he' = 'may he be', etc.), distinct from subjunctive forms (…*hann sé* 'he be', etc.), thereby highlighting that the optative is 'LF active' in the language, although it isn't normally 'PF active'.

English has middle forms without a middle marker, *opens*, *opened*, etc. (Keyser and Roper 1984, among many). In general, the Germanic languages have not developed specialized middle markers, Swedish, for instance, most commonly using the 'passive' -*s*-marker, *öppnades* 'opened-*s*', etc., German applying the reflexive pronoun, *öffnete sich* 'opened (itself)', and Icelandic using the multiply ambiguous -*st*-marker, *opnaðist* 'opened-*st*' (Anderson 1990). Evidently, though, all the Germanic languages have the 'middle category', irrespective of whether or how they overtly express it.

It is trivially obvious that 'keeping quiet' about a category is more economical than expressing it.[14] The Silence Principle is plausibly the most powerful economy strategy applied in PF, but another very powerful one is THE COMPACTNESS PRINCIPLE:[15]

(10) Any meaningful feature may combine with its neighboring feature(s), so as to make up a compact unit of information.

Thus, language may combine distinct features, such as aspect, tense, mood, gender, number and person in e.g. the verb inflection, thereby producing a compact unit of information, easy to express but underlyingly highly complex. Substantial cross-linguistic variation arises because different features combine in different languages. Two simple examples: 1) gender combines with tense in only some languages, for instance Arabic; 2) person and number combine with the negation in Finnish, in contrast with, e.g., Germanic and Romance languages.

Given the Silence Principle it is lexicalization that is last resort, requiring some licensing or justification (see my approach to lexical arguments vs PRO in Sigurðsson 1991), whereas non-lexicalization is the unmarked or the minimal strategy, applied whenever possible.[16]

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[13] For a recent, very relevant study of silence in language, see Merchant 2001. Notice, however, that we need to distinguish between silence that is due to non-lexicalization (as we are discussing here) and silence that is due to PF-deletion (such as sluicing in Merchant's analysis).

[14] At least from the point of view of the speaker, cf. Merchant (2001:1). However, avoidable information is uneconomical noise, also from the point of view of the hearer.

[15] Compactness must evidently respect the Minimal Link Condition (MLC), that is, non-adjacent features cannot combine across an intervening one. If MLC is a condition on syntax and not merely a PF constraint, then this means that compactness is at least partly due to syntactic processes.

[16] See e.g. Gilligan 1987, where it is shown that it is cross-linguistically far more common to allow null-subjects in finite clauses than to require overt subjects. Lexicalization is arguably the last resort

5. Even more meaningful silence

Not to be able to see, hear or touch things that evidently exist is unreal and frightening to most people. Language, our object of inquiry, is much less tangible than most of us would wish. Not only may features be silent in individual languages, there are also meaningful features that are silent in *all* languages. In recent work, I have argued that any finite clause is computed in relation to a speech event, containing the speech participants and the time and location of speech (Sigurðsson 2003a,b,c,d,e).[17] I shall here assume that the time and location of speech, $S_{T/L}$, is a single feature, namely the Fin(iteness) feature of Holmberg and Platzack (1995), Rizzi (1997), Platzack and Rosengren (1998) and others.[18] Conceiving of speech participant features as logophoric roles/features (see below), *λ-features*, the composition of the Speech Event can be sketched as follows:

(10) Speech Event $\supset$ $\{S_{T/L} = \text{Fin}, \{\lambda_n, \lambda_{n+1}, \ldots\}, \ldots\}$

That is, the speech event minimally contains the time/location of speech and a set of participants.[19]

Since Reichenbach (1947), it is widely acknowledged that language computes grammatical tense in relation to the speech time (Hornstein 1990, Giorgi and Pianesi 1997, Cinque 1999 and many others). The central Reichenbachian insight is often illustrated with the past perfect, as in (11):

(11) He had read the book (before seven).

The tense reading of examples of this sort is usually analyzed as E_R_S: event time (E) before reference time (R), and reference time, in turn, before speech time (S). In other words, the event of reading happened before the reference time of the grammatical tense (here past), and the time of the grammatical tense was prior to the time of speech. What this means is that the event time is interpreted or valued in relation to the grammatical tense (reference time), which in turn is interpreted in relation to the speech time (see the discussion in Giorgi and Pianese 1997:27ff. and in Cinque 1999:81ff.). We may sketch this as in (12). A $\leftrightarrow$ B denotes the relation 'A is interpreted or valued in reation to B', $E_{T/L}$ is the Event time/location, T/L is grammatical Tense/Location, and $S_{T/L}$ is the Speech time/location.

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whenever a meaningful feature cannot be conveyed in a message by any other means than the physically costly means of overtly expressing some item that carries the feature (plausibly, economy in language is plainly physical, in terms of energy). Thus, instead of looking for a 'license' to stay empty a silent category is 'happy' with whatever 'excuse' it has not to get lexicalized. – This is the general program we should pursue, I believe. A huge amount of work remains to be done, where language is seen from the perspective of silence rather than from the perspective of sound.

[17] Partly inspired by my discussions with Valentina Bianchi and Elisa Di Domenico and by their works (Bianchi 2002; Di Domenico 2003).

[18] This is probably an oversimplification. On closer inspection, it seems that expletives and other EPP elements match only speech location (with respect to participants and events), whereas speech time is separately matched by Tense. For a discussion, see Sigurðsson 2003b.

[19] A speech event may be EXTENDED, so as to contain for instance participants in the third person ('proximate participants') that are not inherent components of the minimal speech event. I shall not discuss this here.

(12) $E_{T/L} \leftrightarrow T/L \leftrightarrow S_{T/L}$ (=Fin)

This is just a restatement of the Reichenbachian insight. Amazingly, on the other hand, linguists and philosophers have, to my knowledge, not generally acknowledged another closely related fact, namely that Person and other ϕ-features have a parallel status as grammatical Tense in that these grammatical participant features (P) relate event participants, E_P, and speech participants, S_P:[20]

(13) $E_P \leftrightarrow P \leftrightarrow S_P$

Importantly, the inherent speech participants are *not* simply the speaker and the addressee, as usually assumed. Rather, they are the agent and the patient of speech, i.e. logophorically active vs passive selves. Consider the very simple examples in (14):

(14) a. **I** believe **you**.
1SG = the speaker = the logophoric agent (and also the 'believer')
2SG = the addressee = the logophoric patient (and also the 'believee')
b. John said to me: "**I** believe **you**."
1SG = John = the logophoric agent (and also the 'believer')
2SG = the speaker = the logophoric patient (and also the 'believee')

As this illustrates, the constant meaning of the personal pronouns is not speaker vs. addressee, but logophoric agent vs. logophoric patient.[21]

Person and other ϕ-features, then, are like Tense in that they are *grammatical features* that mediate between or relate event features and speech features:

(15) Event f $\leftrightarrow$ Grammatical f $\leftrightarrow$ Speech f

This is in a nutshell the displacement property of language, that is, the property that makes it possible for humans (as opposed to most or all non-human animals) to communicate about events that are displaced, not present in the speech event (cf. Di

[20] "Empirical evidence for covert operations and the structures they yield is harder to obtain than for their overt counterparts, but it exists, and conceptual arguments also carry us some distance, at least" (Chomsky 1995:359).

[21] The interaction of person with number and inclusiveness raises widely discussed problems (see Panagiotidis 2002 and Cysouw 2002 for recent discussion). The problems are at least partly resolved under the present understanding. *We*, for instance, is obviously not a plural of *I* in the sense that it denotes 'more than one speaker' (except perhaps under extremely rare and special circumstances). However, it *is* the plural of *I* in the sense that it denotes more than one potential logophorically active selves: 'I and others that could be in my footsteps as speakers/thinkers'. Thus *we* can mean 'I, John, Mary and you', but it cannot mean 'I and this book' and even not 'I and God'. That is, *we* is not simply augmental, as often assumed; rather the 'augmented entitiy' must be one or more potential logophoric agents. The second person is more complex (as seen by e.g. the fact that one can address God by the second person singular but not include him in the second person plural), but I shall not detail here.

Domenico 2003).[22] Grammar is basically a device that computes events in relation to speech:[23]

(16) Event ⇔ Computation ⇔ Speech

Event participants are *θ*-roles or *θ*-features, whereas speech participants are *λ*-roles or *λ*-features, as mentioned above. The linking or interpretative function of grammatical *ϕ*-features may thus be sketched as follows:

(17) *θ*-features ↔ *ϕ*-features ↔ *λ*-features

In feature based syntax, where labelling and X'-theoretic conventions are dispensed with (Collins 2002; cf. Chomsky 2002:151), an argument is not a 'position' or a 'DP', but a set of relationally interpreted features (typically matched by a single PF element):

(18) 'Argument' = {θ ↔ ϕ ↔ λ}

On this understanding inherent features of the speech event are *not* 'pragmatic'. They are *syntactic*, indispensable elements in LF, independent of specific 'circumstances' and crucially entering the computation of every single argument and every single clause in every single language. Plainly, clauses or propositions have *no truth value*, are entirely non-functional, unless they are computed in relation to the speech event and its components. We must thus assume (as briefly discussed in Sigurðsson in press, 2003a) that any finite clause contains an extended vP = Event Phrase, EP, and an extended CP = Speech Phrase, SP, containing $S_{T/L}$ and *λ*-features:[24]

(19) [$_{SP}$ ~~λ …~~ Force ~~… $S_{T/L}$ …~~ [$_{IP}$ … Person … Tense … [$_{EP}$ … Event …

$S_{T/L}$=Fin is arguably the mysterious element responsible for ('high') EPP effects, triggering movement of a subject or a stylistically fronted element (Holmberg 2000) to Edge,IP (i.e. into the local feature matching or c-command domain of $S_{T/L}$=Fin).[25]

$S_{T/L}$=Fin and *λ*-features are perhaps those features of language that are most obviously and uncontroversially universal: there can be no language without the fundamental components of the speech event. Nonetheless, these syntactic features

[22] Displacement/dislocation in the sense of movement is an overt manifestation of this underlying event-speech matching, but I cannot pursue this here.

[23] That is, the computation interprets features rather than deleting them. Redundant agreeing features are not LF features but introduced by language-specific PF copying processes (that, in turn, reflect underlying Agree and feature matching, cf. Sigurðsson in press). – Notice that the linking or mediating function of grammatical features enables computation that escapes global look-ahead, as required.

[24] The Force element is also silent in main clauses (albeit matched by overt elements), but arguing in favor of this would take me too far, so I am asuming the simpler approach of Rizzi (1997), for expository purposes. There are good reasons, I believe, not to unify vP and EP, but I shall not pursue that issue here either.

[25] For a more thorough discussion, see Sigurðsson 2003b.

are *by necessity* silent in all main clauses in all languages, as illustrated by the strikethrough in (19).[26]

To repeat: language has innate semantic elements and structures that are independent of their physical exponents. Thus, language variation is strictly confined to PF (and the lexicon), and the setting of parameters does not merely involve choices between different physical strategies. It also, or even primarily, consists of numerous choices whether or not to assign physical expressions to logically present categories (cf. Cinque 1999). We need to extend the notion of feature strength or prominence (in PF) such that 'prominence' entails 'physically expressed'. In addition, we need to acknowledge that, in spite of being an extremely sophisticated motor system, the Phonological or Physical Form of oral languages is *not* part of Universal Grammar, not any more than the Physical Form of sign languages or the ability to learn, say, acrobatics.

If PF is not part of UG, then the derivation does *not* proceed by phase on the PF side (although it arguably does so on the LF side). Insertion of lexical roots like *table* or *sing* is reasonably pre-computational. In contrast, 'lexical instertion' of items containing features like Tense and Person, that must be computed in relation to the speech event, takes place post-computationally. Insertion of an item like e.g. the first person pronoun cannot successfully take place until after its computation has been completed.[27]

6. Conclusion

Children of course acquire knowledge of many lexical and physical aspects of their native languages by experiencing positive data. In contrast, they *do not learn* the underlying Logical Form of language, even though it arguably is not full-fledged at birth, but keeps developing until puberty. Childhood growth of Logical Form is largely biological, it seems, much like e.g. the growth of our hands: It is of course affected by environmental factors, but it is, crucially, genetically preprogrammed.[28] However, on this view, it also follows that adult languages cannot be 'pure products' of the language faculty. Rather, adult language is a hybrid of linguistic and non-linguistic systems of mind, serving, for instance, as a tool for classification and storing of concepts used by conscious thought (e.g., *zero* and *prime number*).

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[26] That is, V2 should not be analyzed as involving verb raising to $S_{T/P}$=Fin (as in e.g. Platzack and Rosengren 1998). I assume instead that the verb raises into the vicinity of the empty $S_{T/P}$=Fin (Sigurðsson 2003b,c). On the other hand, it seems plausible to assume that the anaphoric speech event of subordinate clauses is typically matched or even lexicalized by 'speech anaphoric' complementizers, like *that*. Complex subordinating elements, like Icelandic *eftir að* 'after that' = 'after', presumably lexicalize both a Force and a Fin element.

[27] Or else we have to allow limitlessly (and very costly) 'crashing syntax', cf. the discussion against 'crashing design' in Frampton and Gutman (2002). If PF is not part of UG, and if Spell-Out is largely post-syntactic, it follows that there is no reason to assume any parallelism between phonological feature selection and 'activation' of syntactic features (contra Thráinsson 1996). – Perhaps, the distinction between early insertion of lexical roots and late insertion of items containing computed functional elements reflects historical development of language.

[28] Cf. Chomsky (2002:49), comparing the development of language and other biological subsystems, e.g. binocular vision. Notice that this is not to say that individuals who have no access to linguistic forms will develop normal linguistic skills. Evidently, they do not develop the normal motor skills and perhaps they will not develop normal skills at the conceptual-intentional interface either. However, the latter issue is complex and largely beyond attainable knowledge, as far as I can judge.

Evidently, the Logical Form of individual adult languages is not deeply affected or transformed by extra-linguistic factors, but estimating the extent of the infiltration of non-linguistic systems into the linguistic system and vice versa is a non-trivial task.

In conclusion: There is extensive evidence that *all* languages have access to *all* features of UG – humans are endowed with innate semantic elements and structures that are independent of whether or how they are expressed. We need to realize that SILENCE VARIATION underlies a substantial part or even the lion's share of language variation. If we do not acknowledge this simple truth, the wonder of Babel will remain a mystery, kept with Jehovah for all eternity.

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