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## РАЗНЫЕ ОБЪЯСНЕНИЯ СОВМЕСТИМЫ: СТРУКТУРНЫЕ, ЭВОЛЮЦИОННЫЕ И БИОКОГНИТИВНЫЕ ОБЪЯСНЕНИЯ В ГРАММАТИКЕ

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**Аннотация:** Лингвисты часто исходят из того, что они обязаны выбрать один из конкурирующих подходов или моделей языка и присоединиться к определенному сообществу ученых. Нередко этот выбор представляется как своего рода «обязательство» или кредо. Так, структуралисты, функционалисты и генеративисты склонны воспринимать друг друга как конкурентов и не рассматривать работы друг друга как заявки, потенциально совместимые с их собственными. В этой статье я утверждаю, что эти три подхода совместимы и причин для идеологических расхождений между лингвистами нет. В то же время, структурные объяснения не должны смешиваться с биокогнитивными.

**Ключевые слова:** методология лингвистики, объяснение, структурная лингвистика, генеративная лингвистика, эволюционная лингвистика

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## DIFFERENT EXPLANATIONS IN GRAMMAR ARE MUTUALLY COMPATIBLE: STRUCTURAL, EVOLUTIONARY AND BIOCOGNITIVE

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**Abstract:** Linguists often act as if they had to choose between different approaches or frameworks or research communities, and sometimes these choices appear as “commitments” or firm beliefs. Thus, structuralists, functionalists and generativists have often regarded each other’s work as if the approaches were competitors rather than potentially complementary. Here I note that they can be complementary and that there is no reason for ideological divisions in the field of linguistics. However, it is important to keep structural analyses distinct from biocognitive explanations, as these have often been conflated.

**Keywords:** methodology of linguistics, explanation, structural linguistics, generative linguistics, evolutionary linguistics

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## 1. Introduction

In this informal programmatic paper, I explain why I think that there is no deep reason for ideological divisions in the study of grammatical patterns of human languages: We do not need to have “commitments” or “tenets”, e.g. [Lakoff 1991; Goldberg 2003]; we do not need to decide “what linguistics is about”, e.g. [Hornstein 2019]; we do not need to “subscribe to” a framework and defend it; and we do not need to perpetuate diverging terminologies. All these problematic notions and practices are a reality in contemporary linguistics, but they are not necessary. I would like to suggest that different methodological choices (“approaches”) are more compatible with each other than many people think. For the purposes of this paper, I distinguish three types of explanations which are briefly characterized in (i)–(iii).

(i) **Structural explanations:**

Language systems are more orderly than one may think at first glance, and we can often reduce apparent variety to deeper regularities, e.g. [Matthews 2001].

(ii) **Evolutionary explanations:**

In diachronic change, speakers often select variants that increase the fitness or utility of their language system, so that language systems are (to a significant extent) the product of evolutionary adaptation, e.g. [Givón 2010].

(iii) **Biocognitive explanations:**

Language systems are constrained by being acquired by humans with their particular biological properties. Not every logically possible language is attested, and innate biocognitive constraints (“UG”) can explain observed limits on worldwide diversity, e.g. [Chomsky, Lasnik 1993].

Accordingly, we may want to distinguish competing approaches to human language: (i) structural linguistics, (ii) functional-adaptive linguistics, and (iii) biolinguistics, and indeed, “functionalism” and “generativism” are often treated as competing schools of thought, see, e.g. [Thomas 2020].

However, I argue here that these different approaches should not be thought of as “competing ideologies” or “schools”, but should rather be treated as (potentially and ideally) complementary. The notion of competition is useful for competing hypotheses (or competing claims), and perhaps for competing methods (though methods are often complementary, too), but not for competing ideologies let alone competing “camps”, as linguists sometimes call the different subcommunities of researchers, e.g. [Bošković 2022]. I focus on explanations in this paper because my main concern is with theoretical (or explanatory) linguistics, not with applied questions. Not only broader and deeper claims about Human Language can be thought of as explanatory, but each analysis of a linguistic pattern of a particular language is a kind of explanation, too, see [Haspelmath 2021b].

In §2–4 of this paper, I give concrete examples of different kinds of explanations, and then in §5 I will elaborate on why I think that they are not mutually incompatible. One recurring concrete topic of the paper is the salient phenomenon of differential object marking (see §6). In §7, I highlight the widespread conflation of structural and biocognitive linguistics, before concluding the paper in §8.

## **2. Structural explanations**

Structural explanations reduce apparent variety within a particular language to deeper regularities (or, in other words, more encompassing generalizations). My examples here come from vowel systems (§2.1), word order in German (§2.2), and differential object marking in Sakha (§2.3).

## 2.1. Example: Vowel systems

As is well-known, the most common type of vowel system in the world's languages is the one shown in Figure 1.

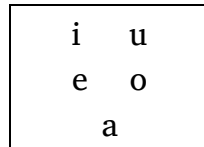


Figure 1. The most common vowel system

Such a system can be reduced to three binary features: [ $\pm$ high], [ $\pm$ low], [ $\pm$ back], as seen below:

i	[+high, -low, -back]
u	[+high, -low, +back]
e	[-high, -low, -back]
o	[-high, -low, +back]
a	[-high, +low, +back]

This kind of phonological analysis has been standard over the last few decades, and it has its roots in structuralist phonology [Trubetzkoy 1939].

## 2.2. German word order

A good example of an insightful structural analysis in syntax comes from German, whose word order options are confusing at first sight. Consider the examples in (1)–(5).

- (1) *Katja **singt** ein Lied.*  
 Katja sings a song  
 'Katya is singing a song.'
- (2) *Katja **hat** ein Lied **gesungen**.*  
 Katja has a song sung  
 'Katya has sung a song.'
- (3) ***Wenn** Katja ein Lied **singt**, ...*  
 when Katja a song sings  
 'When Katya sings a song...'
- (4) ***Wenn** Katja ein Lied **gesungen hat**, ...*  
 when Katja a song sung has  
 'When Katya has sung a song...'

- (5) *Heute singt Katja ein Lied.*  
 today sings Katja a song  
 ‘Today Katya is singing a song.’

Despite the seeming variability, the order is quite rigid and can be described by setting up the abstract template in Figure 2.

prefield — P1 — middle field — *nonfinite verb* — P2

Figure 2. The German word order template

With this abstract template, the number of rules that we need can be simplified: arguments (like *Katja*) or adverbials (like *heute*) can occur in the prefield or the middle field; subordinators occur in P1 and preclude a prefield; and the finite verb (*singt, hat*) occurs in P1 unless this field is filled by a subordinator, as in (3)–(4). Otherwise the finite verb occurs in P2, as in (3)–(4). (This “field template” goes back to structuralist work on German in the 1930s; see also [Zimmerling, Lyutikova 2015].<sup>1</sup>)

### 2.3. Example: Differential object marking in Sakha

In Sakha (a Turkic language), the patient object is accusative-marked (by the suffix *-y*), but only when it is definite [Baker 2015: 4–5], as seen in (6). The case marking of the object corresponds to a word order difference: a definite (and accusative-marked) object precedes an adverb, as seen in (7a). If the object lacks the accusative suffix *-y*, the adverb *türgennik* ‘quickly’ must precede the object (see 7b).

- (6) a. *Masha salamaat-y sie-te.*  
 Masha porridge-ACC eat-PST.3SG  
 ‘Masha ate the porridge.’
- b. *Masha salamaat sie-te.*  
 Masha porridge eat-PST.3SG  
 ‘Masha ate porridge.’

<sup>1</sup> For a brief overview of German word order, see [https://en.wikipedia.org/wiki/German\\_sentence\\_structure](https://en.wikipedia.org/wiki/German_sentence_structure).

(7) a. *Masha salamaat-y turgennik sie-te.*  
 Masha porridge-ACC quickly eat-PST.3SG  
 ‘Masha ate the porridge quickly.’

b. *Masha turgennik salamaat sie-te.*  
 Masha quickly porridge eat-PST.3SG  
 ‘Masha ate porridge quickly.’ (\**salamaat turgennik siete*)

Baker [2015: 126] explains this situation as follows (see also [Lyutikova 2017]): The domain for accusative case assignment is the TP, and when the object is not moved out of the VP in (7a), it is not accessible for case assignment. This is illustrated in Figure 3 (from Baker’s book). This kind of analysis may be seen as a “more modern” way of describing syntax than the German field template, but in its essence it is a kind of structural explanation that generalizes over certain facts by proposing an abstract pattern that is not apparent to inspection but requires the creation of abstract concepts and larger generalizations.

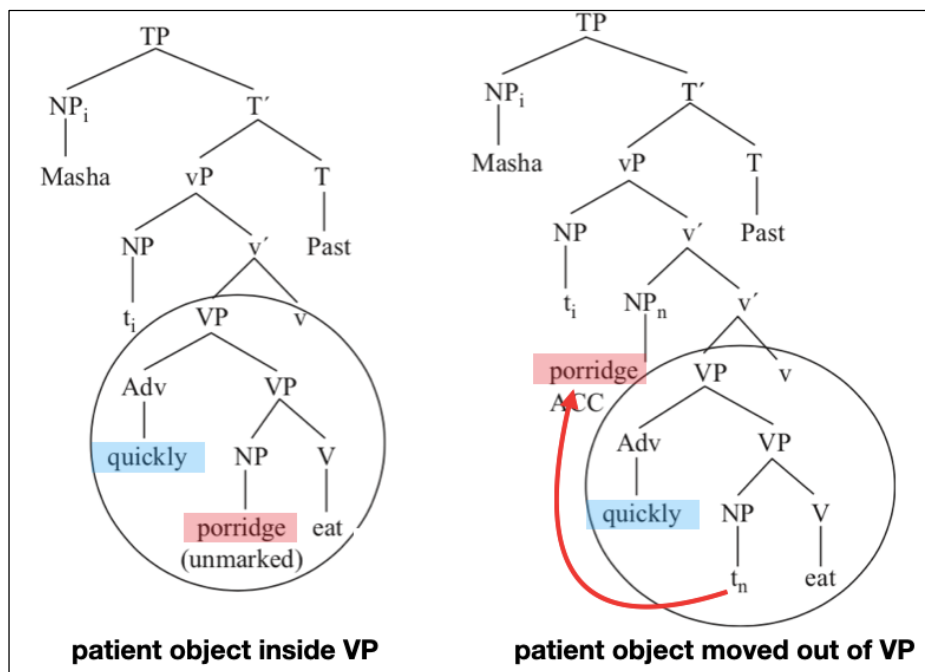


Figure 3. Tree structures for (7b) and (7a) (schematic)

### 3. Evolutionary explanations

Evolutionary explanations state that language systems are (to a significant extent) the product of evolutionary adaptation. Let us look at vowel systems and differential object marking again.

### 3.1. Example: Vowel systems

Symmetric triangular vowel systems can be explained as making optimal use of the vowel space (dispersion theory: [Liljencrants, Lindblom 1972; Gordon 2016]). Moreover, vowel systems are constantly recreated through diachronic change, as is illustrated by changes from Latin to French:

	Latin	French	
$u > y$	<i>mūrus</i>	[myR] <i>mur</i>	‘wall’
$a > \epsilon$	<i>carus</i>	[ʃεR] <i>cher</i>	‘dear’
$e > a$	<i>tectum</i>	[twa] <i>toit</i>	‘roof’
$o > u$	<i>collum</i>	[ku] <i>cou</i>	‘neck’
$e > i$	<i>lēctum</i>	[li] <i>lit</i>	‘read’

These changes tend to be of a kind that yields a well-dispersed vowel space, cf. [Martinet 1955]. In other words, the changes are adaptive, even though they cannot be said to have an inherent directionality.

### 3.2. Example: Differential object marking

Object marking of definite or animate objects can be explained as making optimal use of role-marking, because those types of nominals that are least likely to be objects are marked [Bossong 1991]. The changes are of a kind that yields such systems, e.g.

Latin <i>ad</i> ‘to’	>	Spanish <i>a</i>
Latin <i>per</i> ‘though’	>	Romanian <i>pe</i>
Russian <i>-a</i> (genitive)	>	<i>-a</i> (accusative)
German <i>-en</i> (stem marker)	>	<i>-en</i> (accusative), e.g. <i>den Linguist-en</i>
Chinese <i>bǎ</i> 把 ‘take’	>	<i>bǎ</i> (accusative preposition)

Again, we can say that the changes are adaptive. “Evolutionary explanations” have also been called “functional explanations”, but I prefer “evolutionary” or “adaptive”, because they operate at the level of language change (like biological evolution). There is no claim of synchronic language-particular “functionality”: Synchronically, languages often show nonfunctional or dysfunctional features. The functional-adaptive factors explain general trends, not necessarily language-particular features.

## 4. Biocognitive explanations

Innate biocognitive constraints can explain observed limits on worldwide diversity. More specifically, languages have been said to be constrained by formal universals (architectures of grammar and types of rules) and substantive universals (specific features and categories [Chomsky 1965]). These innate biocognitive structures have often been called “Universal Grammar”, e.g. [Holmberg 2017], and they are particularly associated with the generative approach. Biocognitive explanations of this type can again be illustrated by the three kinds of phenomena.

### 4.1. Example: Vowel systems

Vowel systems, as well as other phonological patterns, are possibly constrained by universal phonological features, as famously proposed by Chomsky, Halle [1968]. In this view, all phonological systems are said to be made up of a small set of innately given phonological features, as seen in the following quotation (emphasis added):

“That there must be a rich system of a priori properties — of essential linguistic universals — is fairly obvious... general linguistic theory might propose, as substantive universals, that the lexical items of any language are assigned to fixed categories such as noun, verb and adjective, and that phonetic transcriptions must make use of **a particular, fixed set of phonetic features**... We will be concerned with the theory of “universal phonetics,” that part of general linguistics that specifies the class of possible phonetic representations” (Chomsky, Halle 1968: 4)

For phonology, there are concrete sets of proposed innate features, and in fact many phonology textbooks present such sets of features. There is no universal agreement on the features, but the proposals for innate substantive features are much more concrete than any of the proposals in syntax.

### 4.2. Example: Differential object marking

Object case marking is possibly constrained by a substantive set of universally possible case assignment rules, as in Baker’s [2015] theory of “dependent case”. The rule formulations in (8) are very much simplified; see my discussion in Haspelmath [2018].

- (8) a. High case in TP (clause) is ergative.  
b. Low case in TP (clause) is accusative.



- c. High case in VP is dative.
- d. High case in NP is genitive (there is no low case in NP).
- e. Unmarked case is nominative-absolutive.

Sakha has rule (8b), and together with the movement operation seen in Figure 3, this explains the Sakha structures, and it accounts for cross-linguistic trends.

### 4.3. Example: German word order

The generative (or biocognitive) explanation of the German word order facts is illustrated in Figure 4. Again, word order is possibly constrained by universal functional hierarchies (CP — IP — VP) and constraints on movement, cf. [Haider 2010]. Then we can say that the German prefield is really the specifier of CP, and that the finite verb is in the C position (“complementizer”). The latter is an odd claim (because C is a category, not an abstract “position”), but this analysis has been widely proposed. The hope is thus that the general “CP — IP — VP” system is innate and thus explains both German word order and the cross-linguistic patterns.

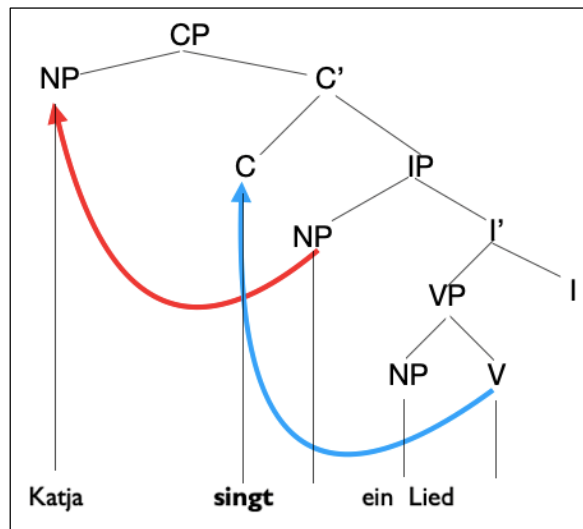


Figure 4. A movement analysis of German word order

## 5. Why these three types of explanations are not incompatible

After illustrating these three types of explanations, using three types of phenomena, I will now say why I do not regard them as mutually incompatible. What I mean by this is that some explanations could be valid for some phe-

nomena and others for other phenomena, or even that a phenomenon could have several explanations simultaneously. The latter situation would be hard to test, but it cannot be excluded.

### 5.1. Structural and biocognitive

In generative grammar, both types of explanation are pursued. Much of the notation of generative grammar was inherited from the earlier structuralist tradition, e.g. [Trubetzkoy 1939; Harris 1951], and generalizations at the level of particular languages are highly prized in generative community, too. What Chomsky [1965] added was the idea is that the structural building blocks are part of the innate grammar blueprint (“Universal Grammar”), so the main structuralist idea and the generative approach are evidently compatible. But they are logically independent of each other, as has become clear over the last two decades, as many generative linguists have no longer been willing to commit themselves to rich innate grammatical knowledge (especially since Chomsky [2005], who reversed his earlier position and no longer claims that the structural building blocks are innate; see [Fitch 2016; Haspelmath 2021b: §5.1]).

### 5.2. Structural and evolutionary

Structural description is not only compatible with evolutionary explanation, but the two are in fact obviously complementary. We need description before we can move on to evolutionary explanation. Consider vowel systems again: A vowel system like /i e a o u/ can be reduced to three binary features: [ $\pm$  high], [ $\pm$  low], [ $\pm$  back], as I noted in §2.1. One can propose an elegant description in terms of binary features, and at the same time advance an evolutionary explanation. The same applies to differential object marking (§2.3 above), which also represents a broadly cross-linguistic tendency. But I do not know any evolutionary explanation of German word order; this is simply one of the many random patterns that languages exhibit.

A structural explanation answers the question: Why do speakers talk the way they do? (answer: because they have internalized a certain language system). An evolutionary explanation answers the question: Why are grammatical systems the way they are? (answer: because certain systems are optimal, and adaptive change favours optimal systems). These are why questions at different, complementary levels, and neither of the two is sufficient on its own.

Moreover, both questions are explanatory or theoretical: The first leads us to propose particular theories (p-theories), and the second leads us to general theories (g-theories)<sup>2</sup>. Each grammatical description is a theory of the language (“A grammar of the language L is essentially a theory of L” [Chomsky 1957: 49]). Thus, it makes no sense to contrast *theoretical* with *descriptive* linguistics — descriptive linguistics (which describes language structures) is usually a theoretical enterprise (unless it has applied goals).

### 5.3. Evolutionary and biocognitive

Finally, I claim that functional-evolutionary and biocognitive explanations are compatible. Many authors have framed the approaches taken by different linguists in terms of “functionalism” vs. “formalism” (e.g. [Newmeyer 1998; Thomas 2020]) and indeed, we observe almost disjoint communities of scholars, with different conferences, journals, and so on. However, I would like to claim that these groups of scholars are primarily divided by habits: by different notations and scientific styles, as well as different “hunches” concerning the most promising methodology.

The approaches taken by the two groups of linguists would be conceptually incompatible if they were committed to radical positions, e.g. if “functionalists” insisted that all general aspects of language structures can be explained by functional-adaptive forces, and that the difference between humans and other species has nothing to do with domain-specific capacities. Or if the “generativists” presupposed that all general aspects of language structures can be explained by innate grammatical knowledge, and that functional-adaptive forces play no role in language structures.

But these are extreme caricatures, and in reality, most functionalists do accept that we are quite far away from explaining everything in functional-adaptive terms (and many of them also use complex formalisms). In addition, all generativists do accept that some structural properties of languages are functionally motivated (and many of them even think that very little is innate [Chomsky 2005]). Thus, in each domain, it is an empirical question what the best explanation is, innate knowledge or functional-adaptive forces.

In fact, we find very similar complementarities in biology and linguistics. In biology, some properties of organisms are explained by the makeup of DNA (its discovery was a major breakthrough), but this has not made evolutionary-

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<sup>2</sup> These abbreviations were introduced in [Haspelmath 2021b].

adaptive explanations superfluous: Organisms are constrained both by DNA and by evolutionary adaptation.

In linguistics, some properties of languages may well be explained by innate knowledge (UG), but this would not make evolutionary-adaptive explanations superfluous. Quite probably, languages are constrained both by UG and by functional adaptation. We will only find out if we consider both explanations simultaneously.

## 6. Competing claims: Differential object marking again

I said earlier that there should be no competing ideologies or “camps” (because we are all scientists), but there can of course be competing claims (= competing hypotheses).

For example, there are (at least) two competing possibilities for explaining the general trends of differential object marking patterns, like those in (9)–(11).

### (9) Sakha

a. *Masha salamaat-y sie-te.*

Masha porridge-ACC eat-PST.3SG

‘Masha ate the porridge.’

b. *Masha salamaat sie-te.*

Masha porridge eat-PST.3SG

‘Masha ate porridge.’ [Baker 2015: 125]

### (10) Mandarin Chinese

a. 我把饺子吃了。

*Wǒ bǎ jiǎozi chī-le.*

I ACC dumpling eat-PFV

‘I ate the dumplings.’

b. 我吃饺子了

*Wǒ chī-le jiǎozi.*

I eat-PFV dumpling

‘I ate dumplings.’

### (11) Spanish

a. *Vi a la niña.*

I.saw ACC the girl

‘I saw the girl.’

b. *Vi la casa.*

I.saw the house

‘I saw the house.’

A functional-adaptive hypothesis says that object marking occurs when it is most needed, namely with definite and/or animate nominals (which are less likely to be on object position).<sup>3</sup> A biocognitive explanation (Baker’s “dependent case” theory mentioned above) says that accusative case is assigned when the object NP is “close enough” (in a specific way) to the subject NP. Thus, in Sakha and Chinese, the object moves out of the VP and hence gets “closer” to the subject NP, so that it can be assigned case.

The functional-adaptive explanation actually has a much wider scope and allows us to understand the universal finding in (12), see [Haspelmath 2021a].

#### (12) Differential object marking universal

If a language has an asymmetric split in object marking depending on some prominence scale, then the special marker occurs on the referentially prominent P-argument.

This applies to six different prominence scales (animate > inanimate, definite > indefinite, 1<sup>st</sup>/2<sup>nd</sup> > 3<sup>rd</sup>, and so on), and it is based on the general observation that in language use, referentially prominent arguments tend to be agents, while nonprominent arguments tend to be patients.

The biocognitive (generative) explanation [Baker 2015] also has wider scope because it allows us to understand why definite nominals show differential accusative case when they occur in a different position from indefinite nominal, cf. Sakha in (6)–(7) above, and Chinese in (10). However, there are several ways in which this theory is more limited: (i) Baker [2015] does not extend his explanation to Chinese — he wants to limit it to “case marking”, not to all kinds of markers that flag nominals (for reasons that are not clear to me). (ii) When the differential marking is conditioned by animacy (as in Spanish), Baker’s biocognitive explanation does not seem to make any prediction. (iii) Even when differential object marking is conditioned by definiteness, it may not be associated with a clear positional difference, as in Hebrew:

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<sup>3</sup> This explanation was formulated clearly by Bossong [1991], building on earlier work. For a more comprehensive account of argument coding splits, see Haspelmath [2021a].

## (13) Hebrew

a. *David kara et ha-sefer.*

David read ACC the-book

‘David read the book.’

b. *David kara sefer.*

David read book

‘David read a book.’

I conclude that the evolutionary-functional explanation has much better empirical coverage than the biocognitive-generative explanation, and moreover, it appeals to highly general explanatory factors: efficiency of coding (“marking occurs where it is most needed”) is merely a special case of efficiency of action. I elaborate on this in [Haspelmath 2021c].

In general, functional-adaptive explanations typically seem superior to me, and I have often asked myself why linguists keep looking for biocognitive explanations of the generative type. After thinking about it for a long time, I would like to suggest an answer here: Because they do not always distinguish properly between structural and biocognitive linguistics. The problem is not that they reject functional-adaptive explanations for ideological reasons — the problem is that they do not distinguish clearly between structural explanations (p-linguistics) and general explanations (g-linguistics) of the biocognitive type. I elaborate on this in the next section.

## 7. The conflation of structural and biocognitive linguistics

To recapitulate in a simplified way: I have said above that (i) structural explanations explain speaker behaviour (“language description”); (ii) evolutionary explanations explain general trends (“why languages are the way they are”); and (iii) biocognitive explanations explain the differences between species (“why chimpanzees don’t talk”).

These differences seem fairly clear, but many linguists conflate structural and biocognitive explanations, assuming that structural explanations must make use of universal building blocks. For example, Aissen [2003: 439] says in her famous paper on differential object marking (emphasis added):

“Optimality Theory (OT) provides a way, I believe, to reconcile the underlying impulse of generative grammar to model syntax in a precise and rigorous fashion with a conception of differential object marking (DOM) which is based on prominence scales.

The purpose of the present paper is to develop an approach to this phenomenon within OT which is formal and at the same time expresses the functional-typological understanding of DOM.”

What does Aissen mean in this passage by (i) “modeling syntax” (ii) in a “precise and rigorous fashion” and (iii) with a “formal approach”? She focuses on providing a “formal framework” that is the same for all languages, i.e. the sort of notation that is often taught in syntax textbooks. But such a framework can be the same for all languages only if it is thought to be innate, and if it is innate, then it also provides an explanation for some of the limits on languages (this is the Principles & Parameters framework, e.g. [Roberts 1996; Baker 2001; Ledgeway, Roberts 2017]).

We can see this very clearly in Aissen’s Optimality Theory notation in Figure 6, which is highly technical but merely says that the accusative marker *et* (seen in (13) above) only occurs with definite objects, but not with objects that are merely specific or even nonspecific (this is indicated by the asterisk in the third column).

ROLE: PATIENT DEF: SPECIFIC, INDEFINITE	*OJ/DEF & *∅ <sub>C</sub>	*STRUC <sub>C</sub>	*OJ/SPEC & *∅ <sub>C</sub>	*OJ/SPEC & *∅ <sub>C</sub>
GF: OJ DEF: SPECIFIC, INDEFINITE CASE: ACC		*!		
☞ GF: OJ DEF: SPECIFIC, INDEFINITE CASE:			*	

Figure 5. Aissen’s [2003] tableau for Hebrew

The notation consists of constraints, constraint rankings, candidates and constraint violations, and all the constraints and many of the constraint rankings are thought to be innate. This makes it possible to both describe all languages in the same framework, and to offer this framework as an explanation (because part of the constraint rankings are innate).

However, even though Aissen’s approach is typical of widespread practice in the generative community, there are very good reasons why one cannot (or should not) conflate structural frameworks and claims about innateness in this way. First, it is biologically implausible that rich descriptive frameworks should

be innate [Chomsky 2005; Berwick, Chomsky 2016]. Second, Aissen [2003] wants to “capture” the insights of efficiency explanations, but in her conflating approach, there is no link between economy/efficiency and the invariant constraint rankings<sup>4</sup>. Third, while different languages often show intriguing similarities, there are often many differences in detail, e.g. “definiteness” is subtly different in Sakha, Chinese and Hebrew. These differences need to be described anyway, and the coarse-grained general categories are not sufficient for this. We need fine-grained language-particular detail anyway, which makes the constraint tableaux redundant. And fourth, functional-evolutionary explanations often have a disparate range of effects; for example, efficiency of argument coding affects objects, subjects, recipients, patients, and a range of different prominence scales [Haspelmath 2021a]. These cannot possibly be captured by a single innate framework.

## 8. Concluding remarks

We all agree that linguists must describe (or “model”) the structures of languages in a “precise and rigorous fashion”. In this sense, we are all structuralists.<sup>5</sup> And unless we concentrate on applied goals, we are all theoretical linguists [Haspelmath 2021b].

In addition, we all agree that formal methods of different kinds are often useful for linguistics. But due to a complicated sociological process, the term *formal* has become associated with Chomskyan generative linguistics.<sup>6</sup> Finally, we all agree that (i) some aspects of language structures are due to efficiency, e.g. abbreviations such as “MPI” for “Max Planck Institute”, and (ii) human minds and chimpanzee minds differ in ways that give humans the capacity for language.

Thus, we really all agree that we need (i) structural explanations (formal models of syntax); (ii) evolutionary explanations (adaptive accounts of efficiency effects), and (iii) biocognitive explanations (explanations of species differences); and that these three must be mutually compatible. So is there a basis for an ideological difference between a functionalist and a generativist? I do not see such a basis, so I think that the difference primarily consists in scholarly traditions, as well as in methodological “hunches”. The functionalist’s

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<sup>4</sup> I discussed this briefly in §4.5 of [Haspelmath 2008].

<sup>5</sup> See also blogpost: <https://dlc.hypotheses.org/2356>.

<sup>6</sup> See also this blogpost: <https://dlc.hypotheses.org/1698>.



hunch is that the precise nature of the formal description is probably not very important for understanding grammar. The generativist's hunch is that considerations of functional efficiency are probably not very important for understanding grammar.

For differential object marking, I have argued that functional efficiency is very important, because it explains many cross-linguistic tendencies [Haspelmath 2021a]. But I do not have any particular "commitments" or "tenets" [Lakoff 1991]; I do not "subscribe to" any particular framework [Haspelmath 2010]; and I do not say that "linguistics is about languages" [Comrie 1978] rather than about universal cognition [Hornstein 2019]. Linguistics is about both of these, and about more.

Given that scholars are humans, and humans live in traditions, we will probably continue to work in such traditions and social communities. But we should not confuse our communities and methodological hunches with mutually incompatible ideologies.

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## Abbreviations

3 — 3<sup>rd</sup> person; ACC — accusative; PFV — perfective; PST — past tense; SG — singular.

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