



---

## ***Inversion in English and Hungarian: Comparison from a Cognitive Perspective***

---

Copyright © 2012  
Selected Papers from UK-CLA Meetings  
<http://uk-cla.org.uk/proceedings>  
Vol 1: 209 – 228

ANDRÁS IMRÉNYI

Eötvös Loránd University  
imrenyi.andras@gmail.com

*This paper compares inverting constructions in English and Hungarian, arguing for a unified treatment from a cognitive perspective. Three largely consonant accounts (Goldberg 2006, Langacker 2010, and Imrényi 2009/2010) are presented with the aim of assessing their cross-linguistic appeal. In the final analysis, inversion is seen as a way of signalling departure from a conceptual “baseline”, operating in the “existential core” of the finite clause (both terms are introduced in Langacker 2010). Elements external to the core are said to function as either elaborators or restrictors, depending on whether they respect or override the baseline properties of the core.*

**Keywords:** inversion, existential core, baseline, elaboration, restriction

### ***1. Introduction***

English subject-auxiliary inversion (SAI) is found in a number of utterance types which at first sight appear to lack functional coherence. These include wh-questions, counterfactual conditionals, and sentences with initial negative adverbs:

- (1) Where did she go?
- (2) Had she gone, they would be here by now.
- (3) Seldom had she gone there...

(Goldberg 2006: 166)

Building on the symbolic thesis of cognitive linguistics, Goldberg (2006: 166–182) argues that these and other uses of SAI do in fact form a coherent functional category, based on divergent paths of deviation from prototypical sentences. Doing so, she explicitly rejects the formalist view that sees SAI as evidence for purely syntactic generalizations or autonomous syntax (Newmeyer 2000).<sup>ii</sup>

In the present paper, my aim is to explore a related phenomenon from Hungarian, and investigate its possible implications for the analysis of English. In Hungarian, it is not the subject and the auxiliary that invert in non-prototypical sentences, but the contexts in which inversion occurs are strikingly similar. Whereas verb modifiers like *meg* (grammaticalized from

adverbs) precede (are prefixed to) their verbs in simple positive declarative clauses (cf. (4)), they follow them in utterance types including those illustrated above with English examples (cf. (5–7)).<sup>iii</sup>

- (4) Zsuzsi tegnap meghívta Marit.  
Sue-nom yesterday vm-called-3sg-def.obj Mary-acc  
'Sue invited Mary yesterday'
- (5) Kit hívott meg Zsuzsi?  
whom called-3sg vm Sue-nom  
'Whom did Sue invite?'
- (6) Hívta volna meg Marit, ...  
called-3sg-def.obj cond vm Mary-acc  
'Had he/she invited Mary,...' (+ main clause)
- (7) Zsuzsi ritkán hívja meg Marit.  
Sue-nom rarely calls-def.obj vm Mary-acc  
'Sue rarely invites Mary'

From a cognitive perspective, these data confirm the hypothesis that there must be some functional motivation behind inversion. However, they also call for a schematization of the analysis by suggesting that the notions of subject and auxiliary need not figure centrally in an account of inversion on a cross-linguistic basis. Therefore, the more specific goal I pursue here is to arrive at an analysis that can accommodate the relevant facts in both languages.

The paper is structured as follows. In Section 2, I begin by presenting and classifying data. In Section 3, I review Goldberg's (2006) account of English and attempt to apply it to Hungarian, pointing out some of its limitations. In Section 4, I follow the same script with a proposal by Langacker (2010). In Section 5, the "source" and "target" languages change: I first present a new account of Hungarian (Imrényi 2009, 2010), then consider its implications for the analysis of English. Finally, summary and conclusions follow in Section 6.

## **2. Data Presentation and Classification**

A useful point for starting is to consider the range of constructions with SAI. The following sample from Goldberg (2006: 166) covers most of the uses of SAI in present-day English.

- |  |                             |
|--|-----------------------------|
| (8) Did she go?                              | Y/N questions               |
| Where did she go?                            | (Non-subject) wh-questions  |
| (9) Had she gone, they would be here by now. | Counterfactual conditionals |
| (10) Seldom had she gone there...            | Initial negative adverbs    |
| (11) May a million fleas infest his armpits! | Wishes/Curses               |
| (12) Boy did she go!                         | Exclamatives                |
| (13) He was faster at it than was she.       | Comparatives                |

- (14) Neither do they vote. Negative conjunct  
 (15) So does he. Positive rejoinder

In addition, it may be recalled that in an archaic register (mostly restricted to Biblical passages), initial **positive** adverbs can also be followed by SAI, as in (16), in which *early* and *often* seem to be highlighted in a contrastive way. Furthermore, when the subject appears in prohibitive clauses with the negative auxiliary *don't*, it generally follows the auxiliary (17).

- (16) "Early and often did the Lord, the God of their fathers, send his messengers to them, for he had compassion on his people and his dwelling place."<sup>iv</sup>

- (17) Don't you go there!

Turning now to Hungarian, we find that the inversion of verb modifier and verb occurs in the utterance types exemplified below.

- |      |   |  |
|------|---|--|
| (18) | Kit hívott meg Zsuzsi?<br>whom called-3sg vm Sue-nom<br>'Whom did Sue invite?'                                      | Wh-questions                             |
| (19) | Marit hívta meg Zsuzsi.<br>Mary-acc called-3sg vm Sue-nom<br>'It was Mary that Sue invited'                         | Identificational focus / Contrast        |
| (20) | Zsuzsi ritkán hívja meg Marit.<br>Sue-nom rarely calls-def.obj. vm Mary-acc<br>'Sue rarely invites Mary'            | Negative adverbs                         |
| (21) | Zsuzsi nem hívta meg Marit.<br>Sue-nom not called-3sg-def.obj. vm Mary-acc<br>'Sue did not invite Mary'             | Sentential negation                      |
| (22) | Hívta volna meg Marit, ...<br>called-3sg-def.obj. cond vm Mary-acc<br>'Had he/she invited Mary,...' (+ main clause) | Counterfactual conditionals <sup>v</sup> |
| (23) | Hívd meg Marit!<br>call-imp-2sg-def.obj vm Mary-acc<br>'Invite Mary!'   | Imperatives                              |

Although neither the English nor the Hungarian sample is fully exhaustive, a quick comparison reveals two significant and rather surprising facts.

Firstly, both languages have inversion in a very heterogeneous range of utterance types. Hence, it is only natural that linguists tend to question the possibility of a unified functional account. For English, Goldberg (2006) cites Green (1985), Newmeyer (2000) and (with a tone of surprise) Fillmore (1999) as proponents of this view. For Hungarian, it is telling that while the truth-conditional meaning and logical structure of sentences with identificational focus have been popular topics of generative linguists since Szabolcsi (1981), much less attention has been paid to the possible semantic reasons behind the word order parallels in (18–23).

Secondly, however, as we map the Hungarian system onto the English one, we find that all of the Hungarian inverting constructions listed above have a close or distant relative in English. Regarding the more problematic cases, I assume (perhaps with some bias) that (16) has affinities with the identificational focus construction ('it was early and often that the Lord...'). Moreover, I take the prohibitive clause in (17) as evidence for a latent tendency to have SAI in English imperatives,<sup>vi</sup> latent because 1) the dominant schema precludes the analytic expression of the subject, 2) the range of auxiliaries it permits is highly restricted.<sup>vii</sup> Finally, the weakest parallel concerns the expression of sentential negation in the two languages (with *not* never triggering inversion in English), but even here *neither* supplies a distant match.

	<b>Hungarian</b>	<b>English</b>
Wh-interrogatives	+ (18)	+ (8)
Identificational focus	+ (19)	? (16)
(Initial) negative adverbs	+ (20)	+ (10)
Sentential negation	+ (21)	?? (14)
Counterfactual conditionals	+ (22)	+ (9)
Imperatives	+ (23)	? (17)

Table 1. Hungarian inverting constructions compared with English

Simplifying as the presentation may be, this pattern cannot be dismissed as accidental. Rather, the data strongly suggest that inversion has a principled basis, for it must make sense in some way for two genetically and typologically distinct languages to treat these utterance types similarly. Unless we want to invoke Universal Grammar, and look for abstract formal principles that might account for the parallels, we need to assume that the distribution of inversion is motivated by the fundamental iconic tendency in language toward expressing similar meanings in similar ways.<sup>viii</sup>

In what follows, I will (for the most part) limit the scope of the investigation to the utterance types listed in Table 1, first reviewing Goldberg (2006), then proceeding to a discussion of Langacker (2010) and Imrényi (2009, 2010).

### **3. Goldberg (2006) and its Application to Hungarian**

Goldberg's basic premise is that "all levels of grammatical analysis involve constructions: learned pairings of form with semantic or discourse function" (2006: 5). At the level of utterance types, SAI is of course not a single construction *per se* but rather a property of a range of constructions; still, the natural assumption from a cognitive perspective is that it is not purely formal in character but rather symbolic. Importantly, its function need not be a unique feature or set of features that all SAI constructions share. Instead, "there are attributes that hold of the prototypical case, and conventional extensions of the prototype systematically differ from the prototype in

displaying only a subset of the relevant attributes. [...] [I]t is suggested that the dominant attribute of SAI is **non-positive**; this attribute of SAI constructions serves to motivate the form of the construction” (Goldberg 2006: 170).

When a more complete picture emerges, two alternative analyses are proposed. In the first (shown in Figure 1 below), the network of SAI constructions is organized around a prototype called “non-prototypical sentence”, characterized by the properties non-positive, non-predicate focus, non-assertive, dependent, and non-declarative. Each SAI construction is an extension from this prototype, displaying some but not all of its attributes. This is considered to be analogous to the way the meanings of lexical items are organized: e.g. the prototype for ‘baby’ includes the attributes ‘small, cute, emotionally immature’, etc., not all of which are salient in expressions like *baby carrot* (Goldberg 2006: 170).

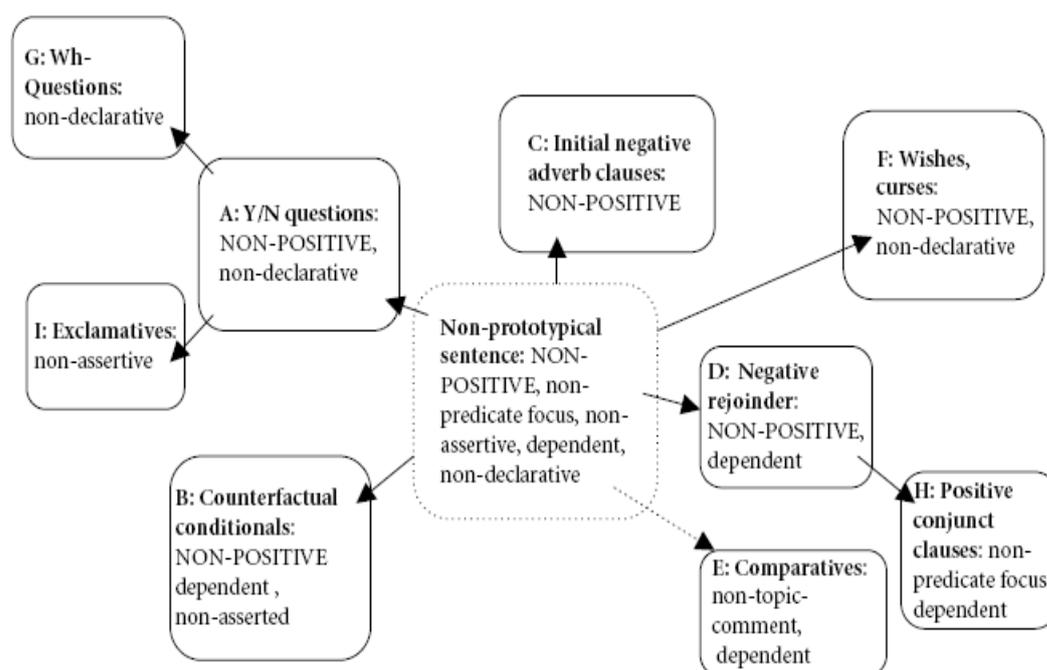


Figure 1. Functional category of SAI constructions with “non-prototypical sentence” as its prototype (Goldberg 2006: 177)

One problematic aspect of this approach is that the category “non-prototypical sentence” has a dubious cognitive/experiential status: as Goldberg concedes, “while we frequently encounter prototypical sentences, we do not encounter “non-prototypical sentences” as instances of a non-prototypical sentence category” (2006: 176–178). Moreover, it seems odd to have negative properties define a prototype as though they were conceptual primitives, with no explicit status in the network for the positive values they depend on.

For these reasons, I consider the alternative proposal preferable (see Figure 2), which is “to reconstrue the category of SAI as a halo of constructions that

stand in **contrast** to prototypical sentences. The systematic difference in form (subject–auxiliary inversion) signals a systematic difference in function (a distinction from prototypical sentences). This analysis recognizes an additional link-type to those suggested in Goldberg (1995): a markedness link, indicated by a curved link” (2006: 178).

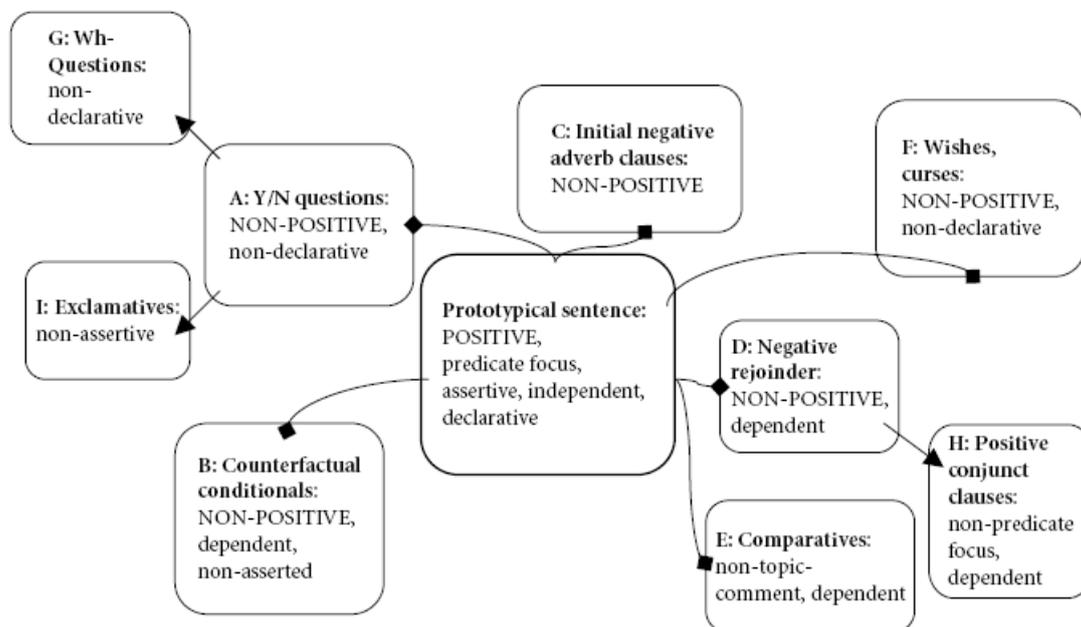


Figure 2. Functional category of SAI constructions with prototypical sentence as its prototype and markedness links motivating each of the extensions from the prototype (Goldberg 2006: 179)

The next question to address is how Goldberg’s (2006) analysis fares when it comes to explaining inversion in Hungarian. Counterfactual conditionals are unproblematic as they fit into the Hungarian system just as well as their English counterparts do in Figure 2, being non-positive,<sup>ix</sup> dependent, and non-asserted. Patterns with a negative adverb like (20) are also readily accounted for, as they are non-positive. Although imperatives are absent from Figure 2, they are easy to make room for, given their non-declarative nature. Finally, a possible reason why sentences with identificational foci display inversion is that they are non-predicate focus. For example, while (19) is positive, assertive, independent, and declarative, it does not assert the invitational event’s realization in time but rather serves to identify a participant.

One aspect of Goldberg’s account that Hungarian seems to cast doubt on is that in Figure 2, wh-questions are only indirectly related to the prototype via yes/no questions, being derived from them by extension (as the arrow link suggests). This cannot be maintained for Hungarian, in which ordinary yes/no questions like (24) do not display inversion, although wh-questions do.

- (24) a. <sup>^</sup>Meghívtad Marit?  
 vm-called-2sg-def.obj Mary-acc  
 'Did you invite Mary?'  
 b. Meghívtad -e Marit?  
 vm-called-2sg-def.obj Q Mary-acc  
 'Did you invite Mary?'

There are two factors that seem crucial to the explanation of (24). Firstly, it has to be recognized (in line with Goldberg 2006: 181) that deviations from prototypical sentences can be signalled not only by word order but also by prosody or the presence of extra segmental material. This is indeed what we find here, with (24a) showing a special intonation contour (a gradual rise followed by a sharp fall, distributed over the full clause), and (24b) the cliticized interrogative particle *-e*. Secondly, however, one would still want to motivate why the use of prosody or the interrogative particle is favoured over inversion.<sup>x</sup> I believe that the answer lies with Croft's following remarks on the typology and function of questions:

Biased questions often take the form of a declarative plus a tag particle or phrase [...]. In many languages, unbiased interrogatives take the form of a declarative plus an interrogative particle, often sentence-final. Thus, interrogatives, biased or unbiased, are structurally often quite similar to declaratives, which are distinguished because they are unmarked. On the function side, biased questions are as much hedged assertions as questions: mutual agreement on the truth of the proposition is hedged until the addressee provides confirmation. In other words, functionally there is a continuum between declaratives, which firmly assert the speaker's belief and expect assent (or at least acknowledgement) from the addressee in response; biased questions, which more weakly assert the speaker's belief and invite explicit assent from the addressee; and neutral questions, which do not assert a speaker's belief and expect a 'filling' in of the indeterminate information from the addressee. (Croft 1994: 467)

In short, yes-no questions like (24) may lack inversion in Hungarian because they are "hedged assertions", and this way they resemble declaratives (the form of the assertion they negotiate) more. By contrast, *wh*-questions cannot be so regarded; hence, their deviation from the prototype is both functionally more significant and more saliently encoded. At any rate, if Hungarian data are deemed relevant at all, it seems preferable to have a direct markedness link from the prototype to *wh*-questions in Figure 2 rather than having the two only indirectly related via yes/no questions.

Finally, two areas can be detected where Goldberg's analysis may need improvement. Firstly, her exclusive focus on English results in too heavy an emphasis on the role of the subject and the auxiliary. She is presumably correct in claiming that "the use of subject–auxiliary inversion to indicate a non-prototypical sentence is rare cross-linguistically" (2006: 181). However, it may be more revealing to take a flexible approach to inversion: so long as two core elements get reversed to signal a non-prototypical sentence, it is of only secondary importance precisely what these elements are. Secondly, Goldberg

seems to be chiefly concerned with constructions as wholes, paying less attention to their internal structure. It is these two areas where the following sections may have something to contribute.

#### **4. Langacker (2010) and its Application to Hungarian**

Langacker (2010) proposes a new analysis of English finite clauses that he regards to be consonant with Goldberg (2006).<sup>xi</sup> In his terminology, the contrast is not between “prototypical” and “non-prototypical” sentences but rather between (the expression of) **baseline** conceptions (of lesser complexity) and departures from the baseline which are more complex and depend on it for their characterization. For example, positive polarity represents the baseline against which negative is **derivative**, and a similar relationship holds between declarative and interrogative clauses. Crucially, derivative patterns are closely associated with their baselines, “being obtained from [them] through some conceptual operation, as well as a formal operation serving to symbolize it” (Langacker 2010: 7).

I think this terminology is better suited to the analysis of SAI, implying that a derivative pattern will draw on its baseline in a very material sense. For instance, a (non-reduced) negative clause will typically preserve most of the material which is used to express its positive counterpart. Note that the same implication is not made by the contrast between “prototypical” and “non-prototypical” sentences (cf. *My leg hurts* vs. *Ouch!*). To the extent that SAI is seen as formally and functionally dependent on the existence and high level of entrenchment of a subject + auxiliary order (as well as the functions it has come to indicate), Langacker’s notions guide the analysis better.

Another significant improvement is that Langacker puts more emphasis on the internal structure of the patterns concerned. According to the proposal, English finite clauses are organized on the core : periphery principle, also displaying “a **fractal** arrangement, whereby analogous configurations occur at multiple levels of organization” (Langacker 2010: 31). Early in the paper, Langacker suggests that “a clause pivots on an existential predication concerning the occurrence (manifestation through time) of some relationship. Tense pertains specifically to this existential predication and is marked on the verb expressing it, which can thus be called the **existential verb**” (2010: 13).<sup>xii</sup> This is an important category from my perspective as it helps generalize over finite lexical verbs and auxiliaries. Since Hungarian lexical verbs readily participate in inversion with their verb modifiers, the benefit for a cross-linguistic study should be immediately apparent.

In generative descriptions of English, the finite verb or auxiliary usually does not (by itself) form a constituent with its subject. By contrast, Langacker (2010) does attach special grammatical status to the subject + existential verb sequence. “Basic to the analysis is a functional grouping that I refer to as the **existential core** of a finite clause. The core includes the subject, the existential verb, polarity, and illocutionary force. Semantically, the core provides a **schematic representation** of the proposition being negotiated. It can thus be used anaphorically, for instance in response to questions, as in

[25]” (2010: 29).

- (25) a. **A:** The president shouldn't be lying to us, should he? **B:** No, he shouldn't.  
b. **A:** You've finished your homework, have you? **B:** Yes, I have.  
c. **A:** The students are still complaining, aren't they? **B:** Yes, they are.  
d. **A:** He DID fix the computer, didn't he? **B:** No, he didn't, actually.

Let me put in a remark at this point. It is noteworthy that while some elaborate English clauses include an existential core to which the whole pattern can be reduced (e.g. *I have lost my key* can be reduced to *I have* in answer to a question), others do not: e.g. *I lost* cannot be understood as a reduced version of *I lost my key yesterday*. *I lost* is still the existential core here, but it is unavailable for purposes of reduction. This contrasts English with Hungarian, where finite lexical verbs are capable of expressing a reduced statement on their own when the participants are contextually recoverable (cf. *Meghívta* 'He/she invited him/her' vis-à-vis *Zsuzsi meghívta Marit* 'Sue invited Mary').

Apart from the existential core, the other key category in Langacker's analysis of SAI is anchoring, which "can be understood as the general notion with respect to which **topic** represents a special case. An **anchor** is an instruction to interpret a proposition with respect to a particular domain of knowledge or a certain aspect of the situation described. Thus it "frames" the proposition and serves as initial point of access for presenting or apprehending the situation" (Langacker 2010: 31). Anchors come in three types: participant, circumstantial, and existential. It is suggested that within the existential core, the baseline is for the subject to be the anchor. Marked word order, notably SAI is a consequence of a **non-default choice of anchor**, as the last six examples illustrate in Table 2 below (Langacker 2010: 32). In *Did she not wait for you?* and *Hasn't she ever waited for you?* "the verb functions as anchor because a polarity question, by its very nature, frames the proposition in terms of the existential predication – existence vs. non-existence is precisely what is being negotiated" (Langacker 2010: 34).

It is now time to take stock and assess the applicability of Langacker's account to Hungarian. The new term with possibly the greatest significance is the "existential core", along with the idea that it can have a baseline realization (subject participant anchor + existential verb + optional remainder) and various departures from it (e.g. negative circumstantial anchor + existential verb + subject as remainder). In effect, this means that the contrast that Goldberg (2006) links to the **clause** level (prototypical vs. non-prototypical) can now be relegated to the level of a **core** component which "schematically represents the proposition as a whole" (Langacker 2010: 31). Needless to say, whatever happens at the core level has strong repercussions for the status of the entire clause as well.

Clause			
Anchor/Existential Core			Remainder
Anchor	V <sub>3</sub>	Remainder	
<i>She</i>	<i>waited</i>		<i>for you.</i>
<i>She</i>	<i>didn't</i>		<i>wait for you.</i>
<i>She</i>	<i>is</i>		<i>waiting for you.</i>
<i>She</i>	<i>may</i>	<i>not ever</i>	<i>wait for you.</i>
<i>She</i>	<i>hasn't</i>	<i>ever</i>	<i>waited for you.</i>
<i>Never</i>	<i>has</i>	<i>she</i>	<i>waited for you.</i>
<i>Seldom</i>	<i>did</i>	<i>she</i>	<i>wait for you.</i>
<i>Only then</i>	<i>will</i>	<i>she</i>	<i>wait for you.</i>
<i>What</i>	<i>is</i>	<i>she</i>	<i>waiting for?</i>
<i>Did</i>		<i>she not</i>	<i>wait for you?</i>
<i>Hasn't</i>		<i>she ever</i>	<i>waited for you?</i>

Table 2. The internal structure of English clauses in Langacker 's analysis

Anticipating the analysis in Section 4, I assume that Hungarian complex verb forms such as *meghívta* 'he/she invited him/her' may also be analysed as baseline realizations of the existential core, so that the following generalizations hold in both languages:

- i. The domain in which inversion operates is the existential core.
- ii. A pair of elements in the existential core have a fixed default order associated with a cluster of baseline values (e.g. positive polarity and declarative illocutionary force). The inversion of these elements is one possible way (interacting with prosody, morphology, etc.) for signalling departure from the baseline.

On the other hand, I doubt that the notion of anchoring can be fruitfully applied to verb modifiers, despite the fact that their distribution in baseline and derivative patterns is formally analogous to that of the English subject. Although verb modifiers like *meg* have been grammaticalized from adverbs (e.g. *meg* comes from *mögé* 'behind', and the primary locative meaning of *fel* 'up' in *felhívta* 'he/she called him/her up' is still active across constructions), they are now simply the prefixes of complex verbs in their preverbal use, and their individual meaning may be completely opaque (with *meg* having no discernible locative meaning at all). Synchronically, it is unthinkable to treat *meg* as a circumstantial anchor; much rather, it forms an integral part of the existential verb.

Relatedly, it would seem wrong to assume that the prefixed verb modifier of a baseline clause (cf. (4)) "fills" the same position as an interrogative or negative element (cf. (18,20)) in departures from the baseline, contrary to what the direct application of Table 2 to Hungarian might suggest. Although a similar



when there is one) has the default function of a **proto-statement** (a schematic positive declarative clause) in Hungarian. In Langacker's terms, this can be regarded as the combination of two concepts: that of the existential core, and that of baseline values. Put simply, by viewing the finite verb as a proto-statement by default, I consider it to be an existential core whose baseline function is to serve as a schematic positive declarative clause. Since the core tends to be a single morphological word (in the absence of a *vm*, or when it is prefixed to the verb), we can also say that in Hungarian baseline clauses like (26), the existential verb and the existential core are coextensive.

Note that the person and number of the subject are marked by verbal morphology in Hungarian, so there is no need for subject pronouns to express paradigmatic contrasts. This brings the conceptual complexity of Hungarian verbal predicates more or less on a par with English subject + finite lexical verb sequences, with the difference that 1) Hungarian has a way of signalling the definiteness (contextual recoverability) of the object, 2) Hungarian finite lexical verbs form existential cores to which more elaborate patterns can be reduced (cf. (28)). The rich system of verb modifiers (cf. the infinitives *hívni* 'to call', *meghívni* 'to invite', *felhívni* 'to call up', *áthívni* 'to call over', etc.) can be thought of as a way of forming complex existential verbs, just as the particles of phrasal verbs derive new lexical items in English.

From this point on, though, my approach is rather different from Langacker (2010). Instead of bringing verb modifiers and inversion-triggering items (interrogative, identificational, or negative, cf. (18–21)) under the same umbrella term, analogously to what the notion of anchoring achieves in Langacker's system, I begin to explore the ways in which external elements relate to the existential core, respecting or overriding its baseline properties.

Dependents of the verbal predicate are traditionally classified into subjects, objects, and adverbials. However, these categories are mostly irrelevant for Hungarian word order. For example, interrogative pronouns can serve as subjects (*ki* 'who'), objects (*kit* 'whom') or adverbials (*hol* 'where') in a given sentence; however, it is not their grammatical function that marks them out for special word order behaviour but rather their interrogative meaning. Therefore, a second **dimension** of description is needed which allows for classifying the relationships of dependents to the predicate from a different perspective.

To return to the original example, I suggest that the dependents of the existential verb *meghívta* 'he/she invited him/her' in (26) all fall into the category of **elaborators**, despite their difference in grammatical function. That is to say, they serve to "characterize in finer-grained detail" (Langacker 2008: 198) aspects of information which are schematically encoded by the existential verb fulfilling its baseline role as a proto-statement. The speaker of (26) reports on the occurrence of an invitational event in the past involving two participants, neither of whom is involved in the speech event. All this is schematically expressed by *meghívta*, which has a way of signalling 1) the nature of the process type by the stem *meghív-* (invitation as opposed to other actions), 2) past tense by the *-t* suffix, 3) the person/number of the subject as well as the recoverability (but absence from the speech event) of the object

participant by the *-a* ending. What each dependent does is elaborate a certain aspect (or “substructure”, cf. Langacker 1987: 304) of the predicate’s meaning: *Zsuzsi* ‘Sue-nom’ elaborates the subject, *Marit* ‘Mary-acc’ the object, and *tegnap* ‘yesterday’ the time reference indicated by the past tense morpheme. None of these modify in any substantial way the context for the predicate’s interpretation, or its status as **profile determinant** (cf. Langacker 1987: 289) for the full clause: *meghívta* ‘he/she invited him/her’ represents the component structure from which *Zsuzsi tegnap meghívta Marit* ‘Sue invited Mary yesterday’ inherits its profile.

As I see it, elaboration from one perspective is **reduction** from another. On the one hand, (30a) can be perceived as a reduced version of (30d); on the other, the latter can be treated as a more elaborate construal of what the former conveys. The bottom line, of course, is that (30a–d) all instantiate the same sentence type regardless of the presence and number of elaborators. In other words, I view elaboration as a **type-preserving** operation.<sup>xiv</sup>

- |   |  |
|---|--|
| <p>(30) a. Meghívta.<br/>               ‘He/she invited him/her’<br/>         b. Meghívta Marit.<br/>               ‘He/she invited Mary’<br/>         c. Tegnap meghívta Marit.<br/>               ‘He/she invited Mary yesterday’<br/>         d. Zsuzsi tegnap meghívta Marit.<br/>               ‘Sue invited Mary yesterday’</p> |  |
|---|--|

Elaboration is a symbolic category: corresponding to the semantic characterization given above are the formal indicators that make a dependent’s status as elaborator recognizable. These include highly flexible word order and prosodic neutrality. By the latter I mean that elaborators have no effect on the prosodic prominence of each other or the predicate.<sup>xv</sup> In a clause like (26), which contains only elaborators for dependents, each element has the same degree of word-initial stress, minor phonetic details aside. In other types of construction, as we shall see, the presence of a special element overrides this prosodic pattern, but elaborators are only **affected by** prosodically non-neutral expressions, they themselves never **affect** others.

Essentially, inversion in Hungarian can be motivated in examples like (31–33) by a **departure from the baseline that elaboration represents** regarding types of relation to the complex existential verb. The crucial property of the preverbal elements here is that they are not elaborators of a proto-statement; on the contrary, they contextualize the existential verb in such a way that it cannot be interpreted as a schematic positive declarative clause determining the profile of the clause as a whole. As a result, these examples cannot be reduced to a mere proto-statement: for example, in no context could *Meghívta* ‘He/she invited him/her’ serve as a reduced form of *Marit hívta meg* ‘It is Mary that he/she invited’.

- (31) Kit hívott meg Zsuzsi?  
whom called-3sg vm Sue-nom  
'Whom did Sue invite?'
- (32) Marit hívta meg Zsuzsi.  
Mary-acc called-3sg vm Sue-nom  
'It was Mary that Sue invited'
- (33) Zsuzsi ritkán hívja meg Marit.  
Sue-nom rarely calls-def.obj vm Mary-acc  
'Sue rarely invites Mary'

The apparent heterogeneity of preverbal elements triggering inversion follows from the fact that they represent three different paths of deviation from the elaborative relation. Interrogative pronouns are not elaborators because it is precisely the absence of elaboration that they mark. By uttering (31), the speaker indicates that she cannot elaborate the object of the existential verb (as applied to the situation at hand), and requires the hearer to assist her. In (32), a possible response to (31), the invitational event's prior realization in time is presupposed rather than asserted, and Mary is identified as the only relevant person invited by Sue. Hence, *Marit* 'Mary-acc' is more like a derived main predicate here (expressing identification) than an elaborator of the existential verb, as the near-equivalent English cleft construction also suggests. Finally, *ritkán* 'rarely' departs from elaboration by virtue of its negative meaning, which contextually overrides the default positive polarity associated with *meghívja* 'he/she invites him/her'.

Collectively, I refer to interrogative, identificational and negative elements as **restrictors**. Although in (31–32), they combine with the segmental material that displays the vm + verb order in its more entrenched use and has the default function of a proto-statement, they impose restrictions on both the meaning and the form of this functional grouping, being both semantically and prosodically non-neutral. On the semantic pole, they restrict the existential verb's capacity to function as a schematic positive declarative clause, and a profile determinant for the construction. This is symbolized phonologically by the inverted order of vm and verb, and the reduction or elimination of stress on the predicate. Restrictors tend to be prosodically highly prominent, with elements in their wake having their stress reduced or eliminated (a phenomenon called, rather ominously, stress "eradication" by Kálmán et al. 1989).

It is of course possible that even without a restrictor in the clause, the existential verb fails to express a proto-statement. Such is the case with counterfactual conditionals (22) and imperative clauses (23), in which departure from the baseline is signalled by the existential verb itself. In other words, departure from the baseline may either be a matter of two expressions interacting semantically and phonologically (e.g. in the context of *ritkán* 'rarely' or *nem* 'not', the default positive polarity of *meghívja* 'he/she invites him/her' is overridden), or a matter of the existential verb alone.

Although there is also a third major group of elements (apart from elaborators and restrictors) which are halfway between the two both semantically and phonologically, this is no time for introducing a wealth of new data, and therefore I leave them out of this paper (but see Imrényi (2009, 2010) for details). Instead, let us now consider what implications this line of analysis may have for an account of English SAI.

To begin with, my comparative approach lends support to the view that inversion is sensitive to a functional grouping that Langacker (2010) calls the existential core. However, **the extent of this core** may be somewhat different from what Langacker proposes, only including the subject and the existential verb, along with the baseline value for illocutionary force, and a possibility for either positive or negative polarity, cf. *I have* vs. *I haven't*.<sup>xvi</sup> Sentence-initial *never* and *what* in Table 2 above may not be parts of the existential core but rather external elements modifying its context for interpretation. Whereas *she has*, *I will* and the like represent the baseline realization of the existential core, associated with positive polarity and declarative illocutionary force, *never* and *what* contextually override the former and the latter, respectively. In other words, they functionally restrict the existential core, preventing it from “living up to” its baseline potential and serving as profile determinant for the clause.

Under the proposal, *never* is classified on two independent dimensions as an adverbial of frequency and as a restrictor. Therefore, in principle, English grammar may have **conflicting schemas** governing its word order behaviour, and indeed this seems to be the case. The use of *never* in (34a) below is motivated by its status as a restrictor. However, English also has a schema for the placement of adverbials of frequency (whether of a restricting character or not, cf. *I have never/always/sometimes invited her*) which may prove stronger, as the more usual pattern in (34b) attests. Semantically, *never* is still a restrictor here but it is distinguished from elaborators only by prosody.

- (34) a. Never have I invited her.  
b. I have never invited her.

An interesting question that the account allows to be raised concerns the interaction of subjecthood with the elaborator : restrictor opposition in English. In Hungarian, analytically expressed subjects are not part of the existential core; hence, the two dimensions of description are free to combine. Subjects, objects, and adverbials are all external to the existential core and may assume a restricting role signalled by word order and prosody. By contrast, the subject is internal to the existential core in English, which is the likely reason why no SAI occurs when the wh-word is the subject.

- (35) Who invited her?

Since the subject is within the existential core, it cannot be a restrictor of the functional grouping of which it is a part, at least not from the perspective of word order. Quite simply, it cannot be both inside and outside of the existential core (serving as **text** and **context** at the same time), therefore, it

“stays” inside and gets marked by prosody alone. \**Invited who her?* and \**Did who invite her?* would of course still be possible under these assumptions, but English lexical verbs do not participate in inversion (for reasons beyond the scope of this paper), and there is strong analogical pressure for the *wh*-word to precede the existential verb regardless of its grammatical function.

English minimal clauses (consisting only of a subject and an auxiliary) seem to form a special system of their own. When both elements are maximally schematic (i.e. when the subject is pronominal), the **baseline information structure** is that the subject is discourse-old and the auxiliary discourse-new (a microcosmic reflection of topic–comment articulation). This is signalled by heavier stress on the latter, marked by <"> in (36). Departure from the baseline is typically indicated by changing the relative prominence of the two elements (37); a kind of “prosodic inversion” (Lambrecht 1994: 320), often associated with more specific construal of the subject. Such narrow focus on the subject is also the likely motivating factor for SAI in comparative and positive rejoinder constructions, as Goldberg (2006: 175–176) already proposes, cf. (38). Here, both syntactic and prosodic inversion occur.

- (36) **A:** Have you finished your homework? **B:** I "have.  
 (37) **A:** Who has broken the window? **B:** "I have. / "John has.  
 (38) a. He was faster at it than was "she / than was "Mary.  
       b. So does "he. / So does "John.

Thus, the overall picture is that the subject’s discourse prominence over the auxiliary may be signalled in three ways: 1) heavier stress, 2) more specific construal, 3) Aux S order. Comparative and positive rejoinder clauses are among the few constructions to exploit all of these.

To conclude, Imrényi’s (2009, 2010) account of Hungarian may have the following implications for English. Firstly, it supports Langacker (2010) regarding the postulation of an existential core. Secondly, however, it calls for a re-assessment of the extent of this core, so that only the subject and the existential verb (possibly with a negative particle) are included in it. Thirdly and as a corollary, a new dimension of description is introduced for elements external to the core. In particular, elaborators (preserving the status of the existential core as profile determinant, and specifying aspects of its meaning in greater detail) appear to stand in contrast with restrictors (contextually overriding baseline values of the existential core). Whereas in Hungarian, the elaborator : restrictor contrast, marked by word order and prosody, applies equally to any dependent irrespective of grammatical function, English has peculiar characteristics (notably in *wh*-questions) which follow from the subject’s inclusion in the core.

## **6. Summary and Conclusions**

In this paper, an attempt has been made to analyse Hungarian and English inverting constructions in an analogous way. The account follows Goldberg (2006) in assuming that inversion signals contrast vis-à-vis prototypical sentences, although the term “prototypical” has been replaced by Langacker’s

(2010) notion of “baseline” values. From my perspective, the major insight in Langacker’s paper is that the contrast just mentioned can be studied not only at the clause level but also at the level of a functional grouping which he calls the existential core. However, in view of my recent analyses of Hungarian (Imrényi 2009, 2010), I have suggested that the core has a more limited extent: *I have* and *I haven’t* count as existential cores but strings like *what have you* or *never have I* do not.

Under the new proposal, negative adverbials and non-subject wh-words appear in SAI constructions because they are restrictors of the existential core, preventing it from assuming its baseline values (positive polarity, declarative illocutionary force) and serving as profile determinant for the clause. Restriction is seen as a way of departing from elaboration, so that contrasts between baseline and derivative patterns obtain at three levels: 1) at the level of the clause as a whole, 2) at the level of the existential core, 3) at the level of relationships between the core and elements external to it. Given the interrelatedness of these levels, inversion may be linked to more of them at the same time. In the context of restrictors (representing a peculiar relationship), the existential core necessarily departs from its baseline interpretation, with major implications for the function of the clause as a whole.

Of course, several simplifications and omissions have been made, which necessitates (in a mutually reinforcing way) both the refinement of the theoretical apparatus and its testing on corpora. However, I hope to have made a strong case for treating inversion in Hungarian and English similarly despite wide genetic and typological gaps between the two languages.

## **Notes**

- i The research reported in this paper, including the author's participation at UK-CLC3, was supported by the Hungarian Scientific Research Fund (grant no. K 76878), which is hereby gratefully acknowledged.
- ii For a defence of this position, and a critique of Goldberg (2006), see Borsley and Newmeyer (2009).
- iii Although verb modifiers (VM) are often said to be aspectual markers (cf. É. Kiss 2002, Chapter 3), it is clear that their contribution is much more complex than that. VM + V sequences are typically lexicalized as complex verbs, and often have an idiomatic meaning, as the glosses in (4) suggest. Note further the capacity of Hungarian verbs to signal not only the person and number of the subject but also the definiteness (contextual recoverability) of the object. *Meghívta* signals a definite, *meghívott* (or *hívott meg*) an indefinite object.
- iv 2 Chronicles 36: 15 in *The Catholic Youth Bible* (edited by Brian Singer-Towns; Saint Mary's Press, 2005).
- v In Hungarian, as in English, it is more usual to introduce conditional subclauses with a special-purpose “mental space builder” (*ha* in Hungarian, *if* in English), cf.

- Fauconnier (1985). In such cases, no inversion occurs. In a tentative vein, I would motivate this by the fact that once the hypothetical status of a mental space has been specified, it has conceptual and processing benefits to treat possible or even counterfactual scenarios within it like facts (with tense/mood distinctions reflecting distance from the ground, cf. Langacker 2008: 272). This is conceptually advantageous because the assessment of factuality by the speaker is in fact a matter of degree. On the processing front, it saves effort to avoid overspecification: *if* pre-empts SAI because in its context, the latter would have no functional contribution.
- vi Haiman (2010: 549) notes that “the sentence-initial position of negative imperative *don't* (...) cannot be accommodated or explained by the standard English rule of subject-verb inversion.” However, his argument rests on the assumption that inversion is an (invariant) movement rule with an input and an output, to which various constraints apply. Under the alternative view, SAI is simply a marked configuration, and prohibitive clauses can be justifiably said to display it.
- vii *May* as used in (11) might be plausibly analysed from a diachronic viewpoint as an imperative clause with a modal auxiliary (and note that it does have inversion). Synchronically, however, it most probably instantiates a construction of its own, as no other modal can be used in this way.
- viii See e.g. Wierzbicka’s formulation: “similarity of form reflects similarity of meaning, and difference of form reflects difference of meaning” (1995: 224).
- ix For Goldberg, *non-positive* means ‘neither presupposing nor asserting the truth of a proposition’ (cf. Goldberg 2006: 171). On this account, yes-no questions and counterfactual conditionals are invariably non-positive. This seems to blur the distinction between illocutionary force and polarity, which may be better kept separate. For example, yes/no questions can also be either positively or negatively construed, cf. *Meghívtad?* ‘Did you invite him/her?’ (cf. (27)) vs. *Nem hívtad meg?* ‘Did you not invite him/her?’. If we regarded both members of such pairs as non-positive, the usefulness of the term for an account of inversion would be questionable.
- x A possible implicational universal might hypothesize that if yes/no questions show obligatory inversion in a language, so do wh-questions, which is not true the other way round.
- xi I thank Ronald Langacker for making the manuscript available to me. Most of the ideas presented in it are also discussed in Langacker (2009), Chapter 8.
- xii Langacker’s use of the term to mean ‘verb expressing the occurrence of some relationship’ needs to be distinguished from the more usual meaning ‘verb expressing existence’ (see e.g. Croft 1991: 7).
- xiii Goldberg (2006: 190) proposes a universal pragmatic principle to the effect that “any semantic participants in the event being conveyed that are relevant and non-recoverable from context must be overtly indicated”. Hungarian conforms to this principle, as it is recoverable or irrelevant participants/circumstances that systematically lack analytic expression.
- xiv This is a more limited use of the term than is customary in Cognitive Grammar. For example, according to Langacker (2009: 247), “elaborated existential cores” may include such elements as *never* (as in **he never has** *been a problem*). Obviously, such elaborated cores cannot be reduced without loss of information in any context. I

suggest that we distinguish between the notions “more elaborate” and “more complex”: increased complexity may result not only from elaboration in the strict sense but also from other kinds of operation.

- xv This is parallel to what could be called their semantic neutrality, i.e. their tendency not to modify the predicate’s context for interpretation substantially.
- xvi Positive polarity **is** the baseline but a departure from it can be signalled at the core level by the negative particle without inversion.

## References

- Borsley, R.D. and F.J. Newmeyer (2009). On Subject-Auxiliary Inversion and the notion “purely formal generalization”. *Cognitive Linguistics* 20 (1): 135–143
- Croft, W. (1991). The evolution of negation. *Journal of Linguistics* 27 (1): 1–27.
- Croft, W. (1994). Speech act classification, language typology and cognition. In S.L. Tsohatzidis (ed.), *Foundations of Speech Act Theory: Philosophical and Linguistic Perspectives*. London & New York: Routledge. pp. 460–77.
- É. Kiss, K. (2002). *The syntax of Hungarian*. Cambridge: Cambridge University Press.
- É. Kiss, K. (2006). Focussing as predication. In V. Molnar and S. Winkler (eds.), *The Architecture of Focus*. Berlin & New York: Mouton de Gruyter. pp. 169–193.
- Fauconnier, G. (1985). *Mental Spaces: Aspects of Meaning Construction in Natural Language*. Cambridge, Mass.: MIT Press.
- Fillmore, C.J. (1999). Inversion and constructional inheritance. In G. Webelhuth, J. Koenig and A. Kathol (eds.), *Lexical and Constructional Aspects of Linguistic Explanation*. Stanford, CA: CSLI Publications. pp. 113–128.
- Goldberg, A.E. (1995). *Constructions: A Construction Grammar Approach to Argument Structure*. Chicago: University of Chicago Press.
- Goldberg, A.E. (2006). *Constructions at Work. The Nature of Generalization in Language*. Oxford: Oxford University Press.
- Green, G.M. (1985). The description of inversions in generalized phrase structure grammar. Paper presented at the 11<sup>th</sup> Annual Meeting of the Berkeley Linguistics Society.
- Haiman, J. (2010). The creation of new words. *Linguistics* 48 (3): 547–572.
- Imrényi, A. (2009). Toward a unified functional account of structural focus and negation in Hungarian. *Acta Linguistica Hungarica* 56 (4): 342–374.
- Imrényi, A. (2010). A dependency-based account of Hungarian structural focus. *Jezikoslovlje* 11 (1): 1–23.
- Kálmán C., Gy., L. Kálmán, Á. Nádasdy and G. Prószéky (1989). A magyar segédigék rendszere [The system of Hungarian auxiliaries]. *Általános Nyelvészeti Tanulmányok* 17: 49–103.
- Lambrecht, K. (1994). *Information Structure and Sentence Form*. Cambridge: Cambridge University Press.

- Langacker, R.W. (1987). *Foundations of Cognitive Grammar, Vol. 1. Theoretical Prerequisites*. Stanford: Stanford University Press.
- Langacker, R.W. (2000). A dynamic usage-based model. In M. Barlow and S. Kemmer (eds.), *Usage-based Models of Language*. Stanford: CSLI Publications. pp. 1–63.
- Langacker, R.W. (2008). *Cognitive Grammar: A Basic Introduction*. Oxford: Oxford University Press.
- Langacker, R.W. (2009). *Investigations in Cognitive Grammar*. Berlin & New York: Walter de Gruyter.
- Langacker, R.W. (2010). *Substrate, System, and Expression: Aspects of the Functional Organization of English Finite Clauses*. To appear.
- Newmeyer, F. (2000). *Language Form and Language Function*. Cambridge, Mass.: MIT Press.
- Szabolcsi, A. (1981). The semantics of topic–focus articulation. In J. Groenendijk, T. Janssen and M. Stokhof (eds.), *Formal Methods in the Study of Language*. Amsterdam: Mathematisch Centrum. pp. 513–540.
- Wierzbicka, A. (1995). Adjectives vs. verbs: The iconicity of part-of-speech membership. In M.E. Landsberg (ed.), *Syntactic Iconicity and Linguistic Freezes*. Berlin: Walter de Gruyter. pp. 223–245.