

From mutual dependency to multiple dimensions: remarks on the DG analysis of “functional heads” in Hungarian

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Abstract

This paper addresses the question if the Focus₀ and Neg₀ functional heads posited by phrase structural, generative accounts of Hungarian should also be recognized in a dependency-based description of the language. It is argued that the “identificational focus” of a Hungarian clause indeed behaves like a “derived main predicate” (cf. É. Kiss 2007), as suggested by two-clause paraphrases and the fact that its assertion can be independently negated. In DG, Hudson’s (2003) “mutual dependency” based analysis of *wh*-questions provides a way of capturing this intuition; however, it does so by lifting the acyclicity constraint on dependency hierarchies (Nivre 2004: 9). To avoid this potentially problematic move, I propose an alternative whereby the primacy of the finite verb and the primacy of other (focussed, interrogative or negative) expressions can be linked to separate dimensions of description. The concept of dimensions adopted in the paper is formally similar to XDG’s related notion (Debusmann et al. 2004). In content, however, it is closer to Halliday’s (1994, 2004) understanding of the term.

1 Introduction

Under the influence of Tesnière (1959/2015) and Valency Theory, modern Dependency Grammar (DG) has characteristically taken a highly verb-centred approach to clause structure, in which the lexical verb plays an especially prominent role. Since the lexical verb evokes the “theatrical performance” whose “actants” and “circumstants” are expressed by other elements (Tesnière 1959/2015: 97), it is naturally viewed as the root of a dependency tree. Two concessions have been made, however, in many specific versions of DG. Firstly,

it is usual to regard finite auxiliaries as heads taking non-finite lexical verbs as complements (Mel’čuk 1988, Hudson 1990, Eroms 2000, Gross–Osborne 2009, etc.). Secondly, complementizers such as *that* or *if*, and even *wh*-elements, have been argued to be the roots of embedded clauses (cf. Osborne 2014, and references therein). These developments can be seen as signs of convergence toward modern phrase structure grammar (PSG), in which the functional projections IP and CP have been firmly established – in the wake of PSG’s convergence toward DG with its consistent elimination of exocentric structures (S, S’).

From the perspective of English grammar, no further concessions may seem necessary. For Hungarian, however, the phrase structural, generative tradition has introduced a range of functional projections beyond IP and CP, notably such phrases as FocusP and NegP (É. Kiss 2002: 86, 132). Given the “weak equivalence” between (specific kinds of) phrase structural and dependency-based representations (Gaifman 1965), this raises the question whether the functional heads Focus₀ and Neg₀ should be recognized in DG as well.

In the present paper, I will argue for the view that the finite verb is not invariably the highest-ranked element of a simple sentence, or at least not in every aspect of meaning and structure. More specifically, I will propose a multi-dimensional analysis whereby both the primacy of the verb and the primacy of other elements can be expressed simultaneously. The concept of dimension adopted in the paper is formally similar to XDG’s related notion (cf. Debusmann et al. 2004: 2). In content, however, it is closer to Halliday’s (1994, 2004) understanding of the term. In particular, the dimensions will be said to construe complementary aspects of clausal meaning such as i. the nature of the grounded process and its par-

ticipants and circumstances, and ii. illocutionary force and polarity.

The paper is structured as follows. I will first give a brief overview of the phenomena that have prompted Hungarian generative linguists to posit FocusP and NegP as functional projections on top of VP (section 2). Next I consider Hudson's (2003) unorthodox proposal within DG, according to which *wh*-elements are not only dominated by but also dominate finite verbs, with the two elements thus standing in "mutual dependency" (section 3). This will be followed in section 4 by my own analysis, which assigns the primacy of the verb and the primacy of interrogative (or other) elements to two separate dimensions. Finally, summary and conclusions follow in section 5.

2 The rationale for FocusP and NegP

In this section, I will look at some patterns of Hungarian that provide empirical support for the FocusP and NegP projections introduced by generative linguists. The presentation will proceed from basic to more complex patterns, and remain largely descriptive, glossing over many theory-internal details of generative grammar. This also applies to the evaluation of empirical evidence, which is to be as theory-neutral as possible, or to assume a DG perspective.

To begin, let us observe in (1) below a neutral positive declarative sentence which lacks both focusing and negation.¹

- (1) Mari meghívta Jánost.
 Mary.NOM PV.called.3SG.DEF John.ACC
 'Mary invited John.'

At the core of (1) is the predicate *meghívta*, which consists of the preverb (PV) *meg* and the inflected verb *hívta* 'called.3SG.DEF', where DEF stands for 'definite object'. The predicate as a whole has the idiomatic meaning 'invited.3SG.DEF'. Importantly, *meghívta* does not simply "evoke" an invitational event. Rather, it has all the functional ingredients of a schematic positive declarative clause expressing the occurrence of such an event. Thus, it can also be used by itself in appropriate contexts (cf. (2B)).

¹ In this context, the term "neutral" means that the clause replies to the question "What happened?" or "What is the situation?", presupposing no prior knowledge about the event denoted by the verb.

- (2)A: Mari meghívta Jánost?
 'Did Mary invite John?'
 B: Igen, meghívta.
 'Yes, she invited him.'²

Both participants of the event are coded morphologically by the predicate. As a special feature of Hungarian, the verb's inflection expresses not only the person and number of the subject but also the definiteness (contextual accessibility) of the object.³ In (1), the two participants are elaborated further by the dependents *Mari* 'Mary.NOM' and *Jánost* 'John.ACC'. This is a par excellence example of micro- and macro-valency at work (cf. László 1988, Ágel-Fischer 2010: 245).

By using (1), the speaker is stating that an invitational event took place with Mary and John as participants. Clauses with a different function include the following, in which the occurrence of the invitational event is presupposed (3) or denied (4) rather than stated. In both cases, the predicate appears in inverted order (verb + preverb).

- (3) JÁNOST hívta meg Mari.
 'It is John who Mary invited.'
- (4) Mari nem hívta meg Jánost.
 Mary.NOM not called.3SG.DEF PV John.ACC
 'Mary did not invite John.'

Sentence (3) expresses that out of a range of possible options, it was (none other than) John who Mary invited. Hence, a special function can be attributed to the accented preverbal element *JÁNOST*, which has been mostly referred to as "exhaustive identification" in the generative literature (É. Kiss 2002: 78). More specifically, É. Kiss (2007) suggests that this expression acts as a derived main predicate, which seems plausible given the following pseudo-cleft paraphrase:

- (3') Akit Mari meghívott, az János.
 whom M.NOM PV.called.3SG, that J.NOM
 'Whom Mary invited is John.'

² The idea that the Hungarian verbal predicate has the function of a schematic clause is proposed by Imrényi (2013a), following similar suggestions by Brassai (1863/2011: 102) and Havas (2003: 17). Here, it is offered as a descriptive generalization with strong support from data like (2B). Subsequent parts of the section follow more closely the generative tradition.

³ On the Hungarian "object conjugation", see also Tesnière (1959/2015: 136).

In generative analyses, the preverbal element performing exhaustive identification is usually assumed to occupy (move into) the Specifier of a Focus Phrase (FP), where “focus” is to be interpreted as “identificational focus” rather than “information focus”, cf. É. Kiss (1998). Some theorists have argued that focus movement into Spec-FP is accompanied by the movement of V into Focus₀ (Bródy 1990). To keep matters simpler, however, I adopt É. Kiss’s (2002: 86) proposal by which no head movement occurs, and only provide a maximally schematic representation:

(5)_{[FP JÁNOST [VP hívta meg Mari]]}.

É. Kiss (2002: 83–84) justifies the constituency [_{Focus} [V XP*]] by coordination and deletion tests, with no separate justification for the head–complement relation between Focus₀ and the VP. However, given the available theoretical options, it only seems natural to handle focusing by substitution rather than adjunction,⁴ given that VP-internal linear order is heavily influenced by the presence or absence of a focussed element. In addition, it seems correct to claim that (3) is a sharply different type of linguistic unit than (1), which is suitably expressed by its unique phrasal category label (FP as opposed to VP).

Although in its immediately preverbal use, the negative particle *nem* ‘not’ behaves very similarly to the identificational focus in Spec-FP, it is standardly assumed to project a NegP (see (6) below, cf. É. Kiss 2002: 132). One reason is that *nem* ‘not’ can intervene between the focus and the verb, which no other element is capable of (cf. (7)). Secondly, it may also have scope over the predication expressed by the focussed expression, as seen in (8). Theoretically, even two negations are grammatical, although patterns like (9) have a low likelihood of occurrence in real-world situations.

(6)_{[Mari [_{NegP} nem [_{VP} hívta meg Jánost]]]}.
‘Mary didn’t invite John.’

(7)_{[FP JÁNOST [_{NegP} nem [_{VP} hívta meg Mari]]]}.
‘It is John who Mary didn’t invite.’

(8)_{[_{NegP} Nem [_{FP} JÁNOST [_{VP} hívta meg Mari]]]}.
‘It is not John whom Mary invited.’

(9)_{[_{NegP} Nem [_{FP} JÁNOST [_{NegP} nem [_{VP} hívta meg Mari]]]]]}.

‘It is not John whom Mary didn’t invite.’

The behaviour of *nem* ‘not’ and the English translations strongly suggest that the “identificational focus” of a Hungarian clause is indeed a predicate ranked higher than the verb. Note especially the fact that the English equivalents of (7), (8) and (9) include two finite verbs, and thus two clauses, either of which can host negation. Hence, it is hard to avoid the conclusion that the *nem* of (8), and the first *nem* of (9), are directly related to the identificational focus rather than the verb – not only in terms of linear order but also with regard to hierarchical structure. In (9), it would be especially awkward to link two instances of *nem* directly to the verb.

Whereas (1) is a neutral sentence answering the question “What happened?”, (3) is a non-neutral one replying to “Who did Mary invite?”. In Hungarian, the latter question matches the structure of its answer, and the interrogative pronoun is also in Spec-FP under the standard generative analysis (cf. (10)). In this case, the unmarked English translation does not involve two clauses, although a marked two-clause option is also available.

(10) [_{FP} KIT [_{VP} hívott meg Mari]]?
whom called.3SG PV Mary.NOM
‘Who did Mary invite?’ /
‘Who is it that Mary invited?’

As additional support for the FP projection, note that it is the identificational focus and the interrogative pronoun to which their constructs can be reduced in appropriate contexts. The phenomenon illustrated in (12) is known in the literature as sluicing (Ross 1969).

(11) A: KIT hívott meg Mari?
‘Who did Mary invite?’

B: JÁNOST hívta meg.
‘John.’

(12) A: Mari meghívott valakit.
Mary.NOM PV.called.3SG somebody.ACC
‘Mary invited somebody.’

B: KIT hívott meg?
‘Whom?’

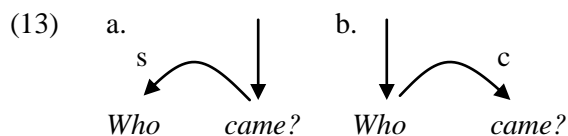
To conclude this section, Hungarian identificational foci do seem to act as predicates

⁴ The adjunction configuration would mean that the focussed expression attaches to the VP to derive another VP: [_{VP} JÁNOST [_{VP} hívta meg Mari]].

ranked higher than the finite verb. Without this assumption, it is hard to see how the structure and meaning of (9) could be explained. From a DG perspective, however, it is difficult to rank the identificational focus (or the interrogative pronoun) higher than the verb, as e.g. *JÁNOST* in (3) is clearly the object of *hívta meg*, expressing the INVITEE (PATIENT) participant of the invitational event. In what follows, I consider two proposals by which certain expressions may be both higher and lower than the verb in the sentence hierarchy. First I discuss Hudson’s (2003) account based on “mutual dependency” between *wh*-elements and verbs (section 3), then present my own approach relying on multiple dimensions (section 4).

3 Hudson’s (2003) analysis based on mutual dependency

In his 2003 paper, Hudson makes the unorthodox proposal that English *wh*-elements are not only dominated by finite verbs but also dominate them, in what he calls “mutual dependency” (henceforth MD). The following illustration is taken from Hudson (2003: 632, 633).



On the one hand, *who* is uncontroversially analysed as the subject of *came* (13a). On the other, Hudson also argues for a separate dependency going in the opposite direction, with *came* treated as the complement of *who* (13b). In this very specific respect, Hudson’s account is somewhat similar to generative models which assume that *wh*-elements are in Spec-CP in English (or Spec-FP in Hungarian). In particular, note that the latter approach entails a (possibly empty) functional head with an interrogative feature that takes the rest of the clause as its complement.

Ever since Tesnière (1959/2015: 198), dependency grammarians have been content with analyses that subordinate *wh*-elements to verbs. This may even seem self-evident, given that *wh*-elements carry the same grammatical functions (and are marked by the same cases in morphologically rich languages) as corresponding referential expressions. One would presume, therefore, that there must be compel-

ling reasons for any alternative, let alone one that goes far beyond the phenomenon itself, violating the acyclicity constraint of DG (cf. Nivre 2004: 9). In this section, I give an overview of Hudson’s key arguments for his proposal before turning to the more problematic aspects of his MD-based account.

Hudson’s first argument rests on the phenomenon of sluicing (Ross 1969), illustrated below.

- (14) a. *Pat*: I know he’s invited a friend. *Jo*:
Oh, who [has he invited]?
b. I know he’s invited a friend, but I’m
not sure who [he’s invited].

As Hudson remarks, “Taking the verb as the pronoun’s complement allows us to explain this pattern as an example of the more general anaphoric reconstruction of optional complements” (2003: 632), as exemplified by *I wanted to see her, and I tried [to see her], but I failed [to see her]*.

It is interesting to note that Osborne (2014) also employs sluicing as evidence for the root status of *wh*-elements in embedded clauses. As he puts it, “the sluiced (=elided) material of sluicing qualifies as a constituent (=a complete subtree) if the *wh*-word is taken to be the root of the embedded question” (286). At the same time, he rejects the root status of *wh*-elements in main clauses (Osborne, p.c.). One advantage of Hudson’s approach is that it provides a unified account of why sluicing works the same way in both contexts, also subsuming these under a more general phenomenon.

A second argument specifically concerns subordinate clauses. As Hudson observes, “The verb must depend on the pronoun in a subordinate clause because the pronoun is what is selected by the higher verb” (2003: 633), as demonstrated by (15).

- (15) a. I wonder *(who) came.
b. I am not sure *(what) happened.

One could question the force of this argument by pointing at independent differences between matrix and subordinate *wh*-clauses (e.g. with regard to word order), which may suggest that any evidence exclusive to subordinate clauses has little to no bearing on matrix ones. However, the word order difference between matrix and subordinate *wh*-clauses is far from universal (English and German attest it,

but not Hungarian or Italian, for example). From an evolutionary perspective, it seems more important that dependent *wh*-clauses evolve from independent ones, which implies that there are fundamental structural similarities between the two. Hudson’s account is more in line with this perspective, as it assigns analogous hierarchical structures to matrix and subordinate *wh*-questions, confining their differences to the linear axis.

Thirdly, as Hudson observes, “The pronoun selects the verb’s characteristics – its finiteness (tensed, infinitive with or without *to*) and whether or not it is inverted. The characteristics selected vary lexically from pronoun to pronoun, as one would expect if the verb was the pronoun’s complement” (2003: 633). The following data serve as illustrations.

- (16) a. Why/When are you glum?
b. Why/*When be glum?
- (17) a. Why are you so glum?
b. *Why you are so glum?
c. *How come are you so glum?
d. How come you are so glum?
- (18) I’m not sure what/who/when/*why to visit.

In conclusion, Hudson uses standard assumptions to motivate his non-standard analysis. Taken individually, some of the arguments may be contested; as pieces of converging evidence, however, they make a fairly strong case for the head status of *wh*-elements. The account also makes plausible generalizations, e.g. over sluicing and other kinds of ellipsis, or over matrix and subordinate *wh*-questions. Thus, it results in simplifications in certain areas of the grammar – at the cost of lifting a ban on dependency hierarchies.

Nevertheless, it seems fair to say that the proposal has attracted few followers in the broader DG community. One trivial reason may be that it presupposes Word Grammar-style diagrams; in approaches working with straight edges and different heights for heads and dependents, MD is impossible to render visually on a single representation. More importantly, the constraint that dependency hierarchies are directed acyclic graphs is central to DG, giving it both mathematical elegance and advantages in computational processing (constraining the number of possible analyses for a

sentence, and allowing for simpler parsing algorithms). As long as MD seems like an exceptional device to handle a special phenomenon, there is little incentive for DG linguists to abandon this constraint, since such a move may well create more problems than it solves.⁵

In the following section, however, I will show that the essence of Hudson’s proposal can be maintained with no violation of the acyclicity constraint. Further, I will use evidence from Hungarian to demonstrate that the configuration is not so exceptional as Hudson’s analysis might suggest. The proposal will also build bridges between DG and other frameworks, notably Construction Grammar and Halliday’s Functional Grammar.

4 A multi-dimensional account of “focusing” and negation

As seen in the previous section, Hudson’s (2003) proposal amounts to the lifting of a basic constraint on dependency structures. It implies that these structures need not take the form of directed acyclic graphs, since “loops” do occasionally occur. An alternative interpretation is also available, however. In particular, the links going in opposite directions may be assigned to two separate dimensions of description, with the result that each dimension may fully conform to the acyclicity constraint. In the present section, I first discuss the concept of dimensions on a theoretical plane, then propose a multi-dimensional account of the Hungarian phenomena reviewed in section 2. Due to space limitations, the presentation will be necessarily brief and programmatic. A detailed exposition is currently only available in Hungarian (Imrényi 2013a).

The notion that a single clause may have multiple syntactic representations (in parallel, rather than as steps of a serial derivation) is fairly common in modern grammatical theories. Perhaps the best known framework is Lexical Functional Grammar (Bresnan 2001). In the DG tradition, Functional Generative Description (Sgall et al. 1986) follows a similar path with its distinction between analytic and tectogrammatical layers of syntax. More recently, the concept has also surfaced in the form of Extensible Dependency Grammar (XDG), whose basic tenet is the following:

⁵ Computational linguists may also discard MD as superfluous from a practical perspective, since full parsing can be achieved without the extra link posited by Hudson.

An XDG grammar allows the characterisation of linguistic structure along several dimensions of description. Each dimension contains a separate graph, but all these graphs share the same set of nodes. Lexicon entries synchronise dimensions by specifying the properties of a node on all dimensions at once. (Debusmann et al. 2004: 2)

XDG adopts a componential model of language, whereby syntax and semantics are independent, albeit interfacing, modules. However, the above formulation is also compatible, at least in principle, with the view that dimensions are inherently symbolic, capturing complementary aspects of a clause's meaning and form.

Under these assumptions, link types on each dimension have both semantic and formal relevance, a familiar example being "subject", which associates semantic properties (participant roles as required by specific constructions⁶) with matching morphology or word order. More generally, dimensions may serve the purpose of separating sets of constructions (in the sense of Construction Grammar/CxG) whose workings are by and large independent. For example, CxG classifies a construct such as *What did you give Mary?* as instantiating the Ditransitive Construction (Goldberg 1995: 141) and the Nonsubject Wh-Interrogative Construction (Michaelis 2012: 35) at the same time. Under the present proposal, these constructions (accounting for different aspects of the above construct's meaning and form) belong to different dimensions, each of which takes the form of a graph.

The next issue to consider is the nature of complementary aspects of clausal meaning. At this point, it is worth recalling Halliday's approach to dimensions, which adopts a primarily semantic perspective. As Halliday (1994) puts it,

the clause is a composite entity. It is constituted not of one dimension of structure but of three, and each of the three construes a distinctive meaning. I have labelled these 'clause as message', 'clause as exchange' and 'clause as representation' (Halliday 1994: 35).

In brief, Halliday's first dimension concerns how the clause "fits in with, and contributes to, the flow of discourse" (Halliday 2004: 64) with its theme–rheme articulation. The second dimension addresses how the clause is "organized as an interactive event involving speaker, or writer, and audience" (2004: 106), and describes the clause in terms of the speech functions offer, command, statement and question. Finally, the third dimension highlights how the clause "construes a quantum of change as a figure, or configuration of a process, participants involved in it and any attendant circumstances" (Halliday 2004: 106).

In Imrényi (2013a), I proposed a similar account of Hungarian clause structure with three dimensions of description (D1, D2, D3) more or less corresponding to Halliday's ones in reversed order. For a verb-based construct, the following basic questions are at issue in each of the dimensions:

- D1: What grounded process is evoked by the clause? What are its participants and circumstances?⁷
- D2: What is the speaker doing by using the clause? What is the illocutionary force and polarity associated with the pattern?⁸
- D3: How is the information contextualized? What reference points (cf. Langacker 2001) or mental space builders (cf. Fauconnier 1985) "situate" or "frame" the information in order to aid its processing, interpretation and evaluation?

⁶ Langacker (e.g. 2005: 132) argues for a schematic conceptual definition of subjects across constructions. I side with Croft (2001: 170), however, and assume that the semantics of subjecthood must be defined construction-specifically. For example, the subject of a transitive verb will be the Agent or Experiencer, but that of a corresponding passive verb will be the Patient or Theme. The subjects of weather verbs and raising verbs need not be "meaningless" either (*contra* Hudson 2007: 131), as they can be seen as coding global aspects of constructional meaning (cf. Imrényi 2013b: 125).

⁷ I consider finite auxiliaries to dominate non-finite lexical verbs. It is their "catena" (Osborne–Gross 2012: 174) which is at the centre of D1, evoking the grounded process (for "grounding", see Langacker 2008, Chapter 9).

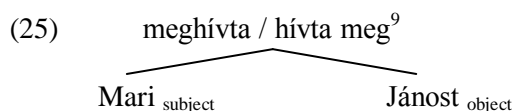
⁸ Although illocution and polarity may seem logically independent, Croft (1994) finds that "the positive/negative parameter (...) is comparable in typological significance to the declarative–interrogative–imperative speech act distinction" (466). One reason may be the central, prototypical status of positive declarative sentences, with respect to which both non-positive and non-declarative ones are interpreted as deviations, cf. Goldberg (2006: 179).

The three dimensions can be thought of as complementary layers of analysis with formal as well as semantic import (in Hungarian, D1 is primarily coded by morphology, while D2 and D3 by word order and prosody). Further, in contrast with Debusmann et al. (2004), the dimensions are conceived as overlapping rather than sharing precisely the same set of nodes. A given node may serve specific functions on more dimensions at once, or else its function may be restricted to just one of them. For example, as Halliday (2004: 60) suggests, interpersonal adjuncts such as *perhaps* “play no role in the clause as representation” (corresponding to my D1 dimension).

Let us now return to the data first presented in section 2, and see what a multi-dimensional approach has to offer.

- (19) Mari meghívta Jánost.
 ‘Mary invited John.’
 (20) JÁNOST hívta meg Mari.
 ‘It is John who Mary invited.’
 (21) Mari nem hívta meg Jánost.
 ‘Mary didn’t invite John.’
 (22) JÁNOST nem hívta meg Mari.
 ‘It is John who Mary didn’t invite.’
 (23) Nem JÁNOST hívta meg Mari.
 ‘It is not John whom Mary invited.’
 (24) Nem JÁNOST nem hívta meg Mari.
 ‘It is not John whom Mary didn’t invite.’

In each example above, the proposed analysis acknowledges the primacy of the verbal predicate in the ‘clause as representation’ (D1), as it is this element that evokes the grounded process whose participants are elaborated by *Mari* and *Jánost*. Thus, they all share the following schematic structure:



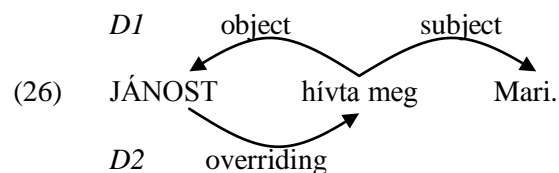
In D2, however, the verbal predicate is only central by default. As proposed above, this dimension is concerned with the clause’s illocutionary force and polarity. The neutral positive declarative clause in (19) has the function of stating the occurrence of an invitational event, and the same meaning is construed schematically by *meghívta* ‘he/she invited

⁹ In a more detailed analysis, *meghívta* would be represented as two nodes linked by a dependency, forming a “catena” in the sense of Osborne–Gross (2012: 174).

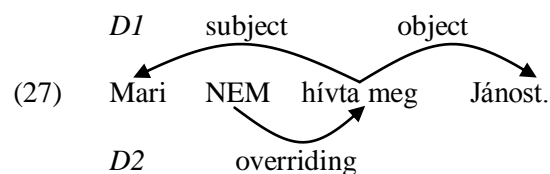
him/her’. Hence, the verbal predicate makes a key contribution to the clause not only in D1 (by evoking an invitational event) but also in D2 (by being crucial to the clause’s speech function as a positive statement expressing that event’s occurrence).

In (20), by contrast, the speech function of the clause is to identify a participant of an invitational event whose occurrence is presupposed. This function is an alternative to the previous one, as a single clause cannot be used to state the occurrence of an event and to identify a participant at the same time. I assume that the former function, viz. stating the occurrence of an event, is linked by default to the verbal predicate (cf. (19)). In cases like (20), this default function is overridden by a preverbal element which endows the clause with the function of identifying a participant. The overriding relation between *JÁNOST* and the verbal predicate is coded by word order (precedence, adjacency, inversion) and prosody (with the overrider receiving extra stress, and the overridden having its stress reduced or eliminated).

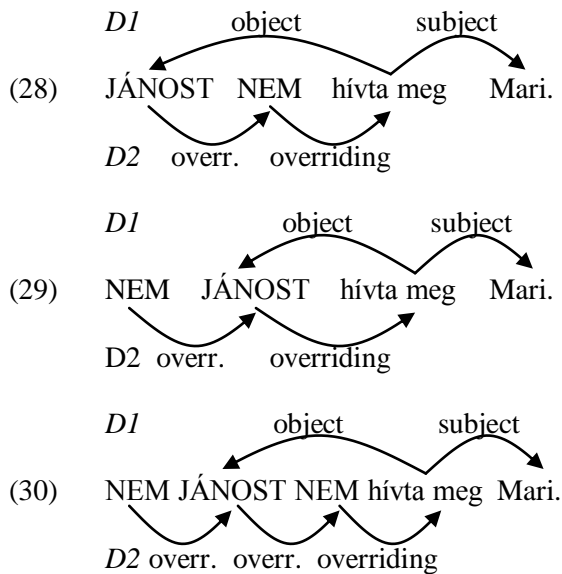
In the proposed representation, the links above and below the string of words belong to two different (acyclic) dimensions.



In (21), it is the negative particle *nem* ‘not’ which prevents the verbal predicate from determining the clause’s speech function. As suggested above, the predicate functions by default as a schematic positive declarative clause expressing the occurrence of an event (*meghívta* meaning ‘he/she invited him/her’). This interpretation cannot be “projected” to the clause level in the context of negation, as the negative particle overrides the default positive polarity associated with the predicate. I assume that *nem* ‘not’ only participates in the D2 dimension of the clause; it has no role in the ‘clause as representation’ (D1). In the diagrams, overriders are marked by capital letters.



Finally, (22), (23) and (24) feature chains of overriding relations.

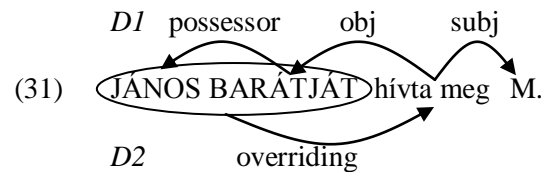


In (28), *nem* overrides the verbal predicate’s default positive polarity, and derives a pattern with the function of denying an invitational event’s occurrence (*nem hívta meg*). This in turn is overridden by *JÁNOST*, so that the function of the clause is not that of denying the invitational event’s occurrence but rather to identify the person who was not invited. In (29), *JÁNOST* overrides the default function of the verbal predicate, and derives a pattern with the function of identifying a participant (*JÁNOST hívta meg*). This identification is in turn overridden by negation. Finally, (30) involves a chain of three overriding relations.

Elements which are not characterized on D2 are regarded as elaborators corresponding to a schematic substructure of the predicate’s meaning (cf. Langacker 2008: 198). For example, *Mari* in the above examples corresponds to the schematic 3SG subject which is part of the predicate’s specification. Thus, when the predicate is overridden, any elaborators are also in the scope of this operation.

In a more detailed analysis, it can be shown that the overrides and overridden elements of D2 are not necessarily single words; rather they are catenae in terms of D1.¹⁰ For example, *JÁNOST hívta meg Mari* ‘It is John who Mary invited’ and *JÁNOS BARÁTJÁT hívta meg Mari* ‘It is John’s friend who Mary invited’ have analogous structures. Whereas in the

former, a single word fulfils an overriding role (cf. (26)), the latter sees a multi-word catena of D1, *János barátját* ‘John’s friend.ACC’ correspond to a single node of D2. In the diagram below, this node is represented as a bubble (cf. Kahane 1997).



Since single words also count as catenae, the following constraint may apply to mappings between D1 and D2:

(32) A D2 node is a catena of D1.

Finally, let us take stock, and see what advantages or disadvantages the new account has. A key advantage seems to be that it captures the intuition of Hudson (2003) while respecting the acyclicity constraint on dependency structures. Secondly, it has a principled basis in clausal semantics, drawing on Halliday’s (1994, 2004) insights in this area. Most importantly, though, it allows one to account for a range of complex patterns that would be difficult to handle with a single dimension. One pertinent example is (9), which contains two independent negations in the same clause, only one of which can be plausibly linked to the verbal predicate. Note also that the analysis provides a unified functional account of various inverting constructions of Hungarian. The negative particle *nem*, identificational foci and interrogative pronouns trigger inversion, overriding the verbal predicate’s default linearization (preverb + verb) as they are also overrides of its default function on D2.

The price paid for all this is the addition of an extra layer of structure. However, since the dimensions are analogous and simple (each taking the form of a graph), the complexity involved is still manageable. Overall, the account supports approaches to syntax which avoid cramming all information into a single representation, opting instead for interacting dimensions of meaning and structure.

5 Summary and conclusions

This paper has considered the question if the “functional heads” Focus₀ and Neg₀ should be accommodated in a DG analysis of Hungarian.

¹⁰ As defined by Osborne–Gross (2012: 174), “a catena is a word or a combination of words that is continuous with respect to dominance.”

It has been suggested that the “identificational focus” of a Hungarian clause should indeed be analysed as a derived main predicate, as proposed by É. Kiss (2007), in view of the fact that it can be independently negated. However, this requires a DG analysis whereby the focused expression is both higher and lower than the verb in the syntactic hierarchy.

While Hudson’s (2003) mutual dependency analysis is based on a fair amount of converging evidence, it lifts a ban on “loops” in dependency structures, which may raise theoretical and practical problems. Therefore, I have offered an alternative account by which the primacy of the finite verb and the primacy of identificational foci and other (e.g. interrogative and negative) expressions can be linked to separate dimensions of description. The concept of dimensions adopted in the paper is formally similar to XDG’s related notion (Debusmann et al. 2004). In content, however, it is rather different, with each dimension conceived as having symbolic (formal as well as semantic) import.

The D1 dimension is concerned with the question as to what grounded process is being evoked, and what its participants and circumstances are. Here, the central role is invariably played by the verb or a catena of verbal elements. The D2 dimension, for its part, addresses speech function (illocutionary force and polarity). Since the Hungarian verbal predicate does not merely “evoke” a process but rather functions as a schematic positive declarative clause by default, it is central to D2 as well, at least in a basic type of clauses. However, identificational foci and the negative particle *nem* ‘not’, among others, induce shifts in the speech function of the clause, overriding the verbal predicate’s dominance in D2. The proposal accounts for a variety of patterns on the left periphery of Hungarian clauses by means of chains of overriding relations. On the semantic side, it follows Halliday (1994), who distinguishes between the ‘clause as message’, the ‘clause as exchange’ and the ‘clause as representation’.

As a result of the close association between Valency Theory and Dependency Grammar, DG has traditionally focussed on the ‘clause as representation’, i.e. the question as to what process is being evoked by the verb, and what its participants and circumstances are. The present proposal has made the case for treating matters of speech function (illocutionary force

and polarity) as an equally important facet of clausal meaning, to be addressed in a separate structural dimension. The account invites more detailed explorations along these lines, and supports convergence between DG and other theories, notably Construction Grammar and Halliday’s Functional Grammar.

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