Tibor Laczkó (University of Debrecen, Hungary)

On a realistic LFG treatment of the periphrastic *irrealis* mood in Hungarian

1. Introduction. Consider Table 1 showing the 2SG indefinite and definite parts of the conditional and irrealis mood paradigms in Hungarian.

CONDITIONAL, INDEF. 'would see' + Oid	**CONDITIONAL, DEF.** 'would see' + Od	**IRREALIS, INDEF.** 'would have seen' + Oid	**IRREALIS, DEF.** 'would have seen' + Od
lát-ná-l	*lát-ná-d*	*lát-t-ál vol-na*	*lát-t-ad vol-na*
see-COND-2SG	see-COND-2SG	see-PAST-2SG be-COND	see-PAST-2SG be-COND

Table 1

As these examples demonstrate, conditional verb forms are synthetic and irrealis verb forms are systematically analytic (= periphrastic). The latter use the following two-word pattern: the first word is the conjugated past tense form of the lexical verb and the second verb is the combination of one of the stems of the copula *van* 'be' (*vol-*) and the conditional marker (*-na*) invariably. In other words, Hungarian encodes irrealis mood periphrastically via the combination of two morphosyntactic features: PAST and CONDITIONAL.

Bartos (2000) shows that *volna* is an independent syntactic atom, see his examples in (1-4).

(1) *%vár-t is volna*
wait-PAST.3SG too VOLNA
'he would also have waited'

(2) *%vár-t-ál csak volna*
wait-PAST-2SG only VOLNA
'you would only have waited'

(3) *%vár-t-ál-e volna?*
wait-PAST-2SG-QM VOLNA
'would you have waited?'

(4) *én megsüt-ött-em, te pedig mege-tt-ed volna*
I fry-PAST-1SG.DEF you by.contrast eat-PAST-2SG.DEF VOLNA
'I would have fried and you, in turn, would have eaten (it)'

For a considerable number of speakers (but not for all speakers, hence the % symbol), the two verbal elements can be separated by unquestionably independent words (*is* 'too' and *csak* 'only', as in (1) and (2), respectively), and by the yes/no question marker (*-e*), as in (3), which, under normal circumstances, attaches to finite, fully conjugated verb forms (e.g. *vár-t-ál-e tegnap?* wait-PAST-2SG.INDEF-QM yesterday 'did you wait yesterday?). For the other speakers, these three elements have to follow *volna* immediately. Moreover, these forms can produce right-node-raising effects, as in (4). This construction is acceptable for all speakers.

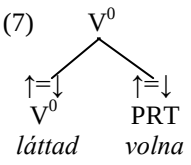
The challenge then is the development of an appropriate and explicit treatment of this fully and invariably periphrastic irrealis mood paradigm. In the paper, first we will outline an account using the technical apparatus of classical LFG and then we will show how the inferential-realizational approach to paradigms (also containing periphrastic forms) advocated by Ackerman & Stump (2004) and Ackerman et al. (2011) can be formally accommodated in this model.

2. Two possible LFG analyses. It is a crucial and shared syntactic aspect of both accounts to be presented below, that, inspired by Laczkó & Rákosi's (2011) treatment of Hungarian non-compositional particle verb constructions, PVCs, we assume a non-projecting syntactic category: PRT (particle) and claim that, in addition to preverbs (particles) in Hungarian PVCs, *volna* is another PRT in its use in the paradigm under investigation.

2.1. A classical LFG solution. This account is morpheme-based. It employs two distinct lexical entries for *volna* (PRT) and the finite, past-tense-marked verb form conjugated for subject agreement and definiteness. Consider the following lexical and syntactic representations in (5)-(7). (5) is the familiar lexical entry for this particular past tense verb form except for the MOOD annotational disjunction: in the regular past tense use, this form contributes the indicative value for the mood feature, or, alternatively, it constrains the mood to be irrealis. The non-projecting word, *volna*, contributes the specification for irrealis mood, at the same time constraining the tense form of the inflected lexical verb to encode past tense, see (6). PRT, being non-projecting, is head-adjoined to the verbal head (and the two elements are functional co-heads, each making its own contribution to the f-structure of the sentence), see (7).

(5) *láttál*, V 'see <(↑SUBJ) (↑OBJ)>'
(↑TENSE)= PAST
(↑SUBJ PERS)= 2
(↑SUBJ NUM)= SG { (↑MOOD)= INDICATIVE
(↑OBJ DEF)= – | (↑MOOD) =$_c$ IRREALIS }

(6) *volna*, PRT
(↑TENSE)=$_c$ PAST
(↑MOOD)= IRREALIS

(7)


2.2. An inferential-realizational paradigmatic LFG treatment. The basic idea here is that a finite (lexical) verb form like (5) has two, more radically different lexical entries (contra the previous approach), because it is involved in two distinct paradigms: in the regular past tense paradigm and in the irrealis mood paradigm.

(8) *láttál,* V ‘see <(↑SUBJ) (↑OBJ)>’

a. (↑TENSE)= PAST
(↑MOOD)= INDICATIVE
(↑SUBJ PERS)= 2
(↑SUBJ NUM)= SG
(↑OBJ DEF)= –

b. (↑MOOD) = IRREALIS
(↑SUBJ PERS)= 2
(↑SUBJ NUM)= SG
(↑OBJ DEF)= –
(↑PRT FORM)=$_c$ VOLNA

(9) *volna*, PRT
(↑PRT FORM)= VOLNA

(8a) is a single, synthetic form encoding a particular (finite, past tense) paradigmatic slot. (8b) is the crucial lexical form from our current perspective. It is one of the two elements of a periphrastic (analytic) mode of expressing a particular irrealis mood paradigmatic slot. Notice that **all** the relevant features characterizing this slot are encoded in this lexical entry, see the first four equations **and** it also constrains that this form has to co-occur with the *volna* PRT. At the same time, the lexical entry for *volna* in (9), the second analytic element of this periphrastic expression, has been “impoverished”: it no longer contributes any morphosyntactic features or constraints; instead, it only has a FORM feature with the VOLNA value (just like idiom chunks in the classical LFG treatment). The functional co-head annotations of V^0 and PRT remain the same as in (7). In Table 2 we present the c-structure and f-structure analysis of the sentence in (10) implemented in an XLE Hungarian grammar in this inferential-realizational paradigmatic approach.

(10) *Te* *lát-t-ál* *volna* *két* *lány-t.*
you see-PAST-2SG.INDEF VOLNA two girl-ACC
‘You would have seen two girls.’

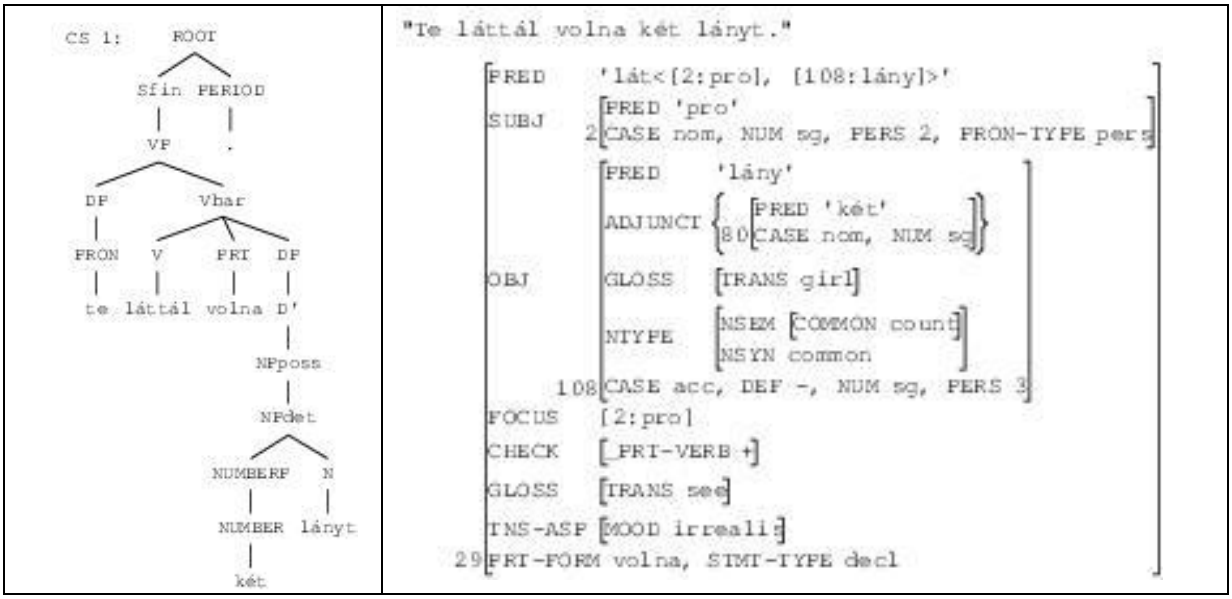


Table 2

This approach has the following **advantages**. **(1)** It spells out the general and programmatic paradigmatic (inferential-realizational) approach to periphrasis advocated by Ackerman & Stump (2004) and Ackerman et al. (2011) in an LFG framework. **(2)** It leaves the classical view of lexical encoding in LFG intact: by using an appropriate checking and cross-referencing mechanism in the relevant lexical forms, it can avoid recourse to multiple word lexical entries, which would pose rather severe problems for LFG’s general morphological assumptions as well as for implementation. **(3)** The devices it employs can be argued to be motivated and justified independently, again, see Laczkó & Rákosi (2011) for the treatment of derivational processes in the case of non-compositional PVCs.

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