THE HUNGARIAN CONDITIONAL:
NON-DEICTIC COUNTERFACTUALITY

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1. Introduction

This paper argues that counterfactuals in Hungarian include past tense semantics, even though they do not always transparently bear past tense morphology. Hungarian counterfactuals are thus morphosyntactically and semantically similar to those in other languages, discussed by Iatridou (2000), Hall (2001), and Ippolito (2006). The proposed analysis explains why Hungarian conditionals are non-deictic in the same way that the Hungarian past tense is—i.e., they exhibit relative tense. More generally, it contributes to a feature-geometric Distributed Morphology account of the Hungarian tense and mood paradigm as a whole.

2. Theoretical context: Counterfactuals, tense, and exclusion

In many languages, counterfactuals are expressed using past tense morphology; various authors have proposed analyses in which counterfactuality and past tense are also linked semantically. Iatridou (2000) argues that counterfactuality and past tense are both based on an exclusion function Excl(x), where x ranges over times or worlds. When x represents a time, the time of the sentence excludes the utterance time, giving past tense. When it represents a world, the world of the sentence excludes the world of the speaker, giving a counterfactual. Hall (2001, 2005) provides an analysis of English modals in which counterfactual situations are alternative continuations from prior times, with the past morphology establishing the prior time. For Ippolito (2006), counterfactuals are alternative continuations of “historically accessible” worlds—i.e., worlds which were possible at some interval ending at the reference time.

Nevins (2002) shows that all the counterfactuals discussed by these authors belong to one of two quite distinct types of counterfactuals, with systematically different properties. This first type, which Nevins labels EM (for Exclusion Morphology), is, in his analysis, semantically based on Iatridou’s Excl(x), and its counterfactuality is implicated, not presupposed. The falsehood of the counterfactual in such constructions is thus cancellable, as can be seen in (1).

(1) a. COUNTERFACTUAL:
   If the patient had eaten poisonous mushrooms, he would be exhibiting symptoms.

*We are very grateful to Michael Szamosi for providing us with Hungarian data, and especially for his good-humoured patience with and careful consideration of sentences like (18). Thanks also to the members of the University of Toronto Syntax and Semantics Project for their comments on an earlier version of the presentation.
b. COUNTERFACTUAL IMPLICATURE CANCELLED:
   *If the patient had eaten poisonous mushrooms, he would be exhibiting precisely the symptoms he is showing now. Therefore, he probably ate poisonous mushrooms.*

The other type of counterfactual construction Nevins describes is found in Mandarin, Tagalog, Slovenian, Hebrew, and Turkish. In these constructions, which he calls non-EM counterfactuals, the falsehood of the counterfactual is presupposed (as argued by Su (2008)) rather than implicated, and is therefore not cancellable. The other relevant property of these counterfactuals is that they are not based on past-tense morphology; rather, they are marked by special complementizers. The Mandarin examples in (2) are taken from Su (2008).

(2) Yaobushi ta mei you fengzhen, tade pifu shang hui you bao.
   Yaobushi (s)he not have measles her/his skin surface will have bump
   ‘If (s)he had the measles, (s)he would have bumps on her/his skin.’
   (COUNTERFACTUAL)

   # Qishi, yinwei tade pifu xianzai you zhei-yang de bao, ta
   actually since her/his skin now have those-kind de bump (s)he
   ‘Actually since (s)he does have that kind of bumps on her/his skin now, (s)he appears to have the measles.’ (INFELICITOUS ATTEMPT TO CANCEL COUNTERFACTUALITY)

3. Tense and counterfactuals in Hungarian

3.1 The conditional mood

Hungarian counterfactuals are expressed by the conditional form of the verb, which is not morphologically related to the past tense in any obvious way. In a counterfactual, both the antecedent and the consequent are in the conditional, as illustrated in (3), from Bartos (2006: 233).

(3) a. Ha esne az eső, hazaindulnánk.
   if fall.cond.3sg the rain home.start.cond.1pl
   ‘If it were raining, we would head home.’

b. Ha esett volna az eső, hazaindultunk
   if fall.past.3sg vol..cond.3sg the rain home.start.past.1pl
   volna.
   vol..cond.3sg
   ‘If it had been raining, we would have headed home.’
The present conditional is morphologically synthetic, as can be seen in (3a), while the past conditional, shown in (3b), consists of a verb in the past indicative with an invariant auxiliary volna, which is the third-person singular conditional form of ‘be.’

If Nevins’s (2002) typology is correct, it is not immediately clear from data such as (3) where the Hungarian conditional belongs in it, since it is neither transparently related to tense like the cancellable English counterfactual in (1), nor transparently separate from tense like the non-cancellable Mandarin complementizer yaobushi in (2). Bartos (2006), discussed in §3.3, argues that Hungarian conditionals are not tense-based, but that they nonetheless make use of Iatridou’s (2000) exclusion function. We argue in §4 that they are based on tense, and show in §5 that this makes accurate predictions not only about their cancellability, but about their semantic behaviour more generally.

3.2 Relative tense

Tense in Hungarian is relative, rather than deictic—i.e., the time reference of an embedded clause is calculated with respect to the time reference of the clause containing it, rather than with respect to the moment of speech, as illustrated in (4), from Bartos (2006: 244).

(4)  a. Péter azt mondtatta, hogy Mari alszik.
    Peter it.acc say.past.3sg that Marie sleep.pres.3sg
    ‘Peter said that Marie was asleep.’

   b. Péter azt mondtatta, hogy Mari aludt.
    Peter it.acc say.past.3sg that Marie sleep.past.3sg
    ‘Peter said that Marie had been asleep.’

In (4a), the present tense marking on alszik indicates that Marie’s sleeping was contemporaneous with Peter’s saying, which was prior to the moment of speech (as indicated by the past tense on mondtatta). Marking ‘sleep’ for past tense, as in (4b), produces a reading equivalent to the English past perfect, in which the sleeping preceded the saying.

3.3 Bartos’s analysis

Bartos (2006) claims, in effect, that Hungarian has no tense at all. Because past ‘tense’ is relative rather than absolute, Bartos proposes that it marks aspect rather than tense, following É. Kiss (2004, 2005), who notes that the Hungarian past tense marker was historically a perfective aspect marker, and Eszes (2004), who analyzes it as such synchronically. According to Bartos, the conditional mood denotes Excl(w)—Iatridou’s exclusion function applied to worlds—which excludes the utterance world, but which has no connection to the past tense. There is in Bartos’s analysis of Hungarian nothing that grammatically encodes Excl(t), the exclusion function operating on times.
4. An alternative analysis

We propose instead that the past tense in Hungarian does indeed spell out a tense feature, and that the same tense feature is also part of the meaning of the conditional mood. Specifically, the past tense realizes the tense feature Precedence, and the conditional mood spells out Precedence and Modality. What is absent from the Hungarian tense and mood system is the feature Deixis, and this absence accounts for the non-deictic semantics of both the past tense and the conditional mood.

4.1 Tense and mood features and their organization in Hungarian

The tense and mood features used by Hungarian are shown in (5). The features are based on Cowper and Hall (1999), Cowper (1999, 2005), and Hall (2001); their geometric organization in (5) is adapted from those works to account for the Hungarian facts.

(5)

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      Infl
        └── Finite
            └── Proposition
                └── Modality
                └── Precedence
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The contributions of the features shown in (5) are as follows:

- **Finite** is a purely syntactic feature corresponding to the ability to agree with, and assign nominative Case to, a subject. It makes no direct contribution to the semantics of a clause, but its position in the dependency structure accounts for the fact that all propositional clauses in Hungarian are finite.

- **Proposition** marks a clause as denoting a proposition (something that can be evaluated as true or false), as opposed to a bare state or event.

- **Modality** indicates that the proposition denoted by a clause represents a possible or necessary continuation of the realis situation, rather than a part of the realis situation (see Cowper and Hall 2007).

- **Precedence** indicates that the time reference of a clause precedes its temporal anchor.

The feature Deixis, which is not used in Hungarian, identifies the temporal anchor of a clause as the moment of speech (see Cowper 2005). In the absence of the explicit identification of an anchor by this feature, the temporal anchor of a clause is determined by the context in which it appears.
4.2 Tense, not aspect

In rejecting Bartos’s (2006) claim that past tense in Hungarian is really perfective aspect, we are using the term tense to refer to grammatical elements that identify the temporal location of a clause with respect to some temporal anchor, while aspect refers to internal temporal properties of a clause, such as whether it is stative or eventive, whether it has duration, whether it has an inherent endpoint, and so on. For us, relative tense is distinguished from deictic tense by the presence or absence of the feature Deixis in Infl. Both relative and deictic tense involve locating the clause with respect to a temporal anchor; the difference between the two is solely in how that anchor is identified.

If we are correct in analyzing the Hungarian past as a true tense, then we should expect it to be independent of the internal temporal structure of the verb phrases with which it combines. This prediction is borne out by the data in (6)–(11), in which the Hungarian present and past tenses freely combine with stative clauses (in (6)), with both perfective and imperfective eventive clauses (in (7) and (8)), and with verb phrases of all aspectual types (in (6) and (9)–(11)). Under Bartos’s (2006) view of past tense as perfective aspect, this cross-classification is unexpected; for example, we might expect the past tense either to impose an endpoint on, or simply to be incompatible with, the imperfective activities in (7) and (11).

(6) **Stative**
   a. *Judit szereti a gombapaprikást.*
      Judith like.pres.3sg.def the mushroom.paprikas.acc
      ‘Judith likes mushroom paprikas.’
   b. *Nagypapa szerette a csirkelevest.*
      Grandfather like.pst.3sg.def the chicken.soup.acc
      ‘Grandfather liked chicken soup.’

(7) **Imperfective event**
   a. *Panni olvassa a könyvet.*
      Annie read.pres.3sg.def the book.acc
      ‘Annie is reading the book.’
   b. *Panni olvasta a könyvet.*
      Annie read.pst.3sg.def the book.acc
      ‘Annie was reading the book.’

(8) **Perfective event**
   a. *Géza megjavítja a rádiót.*
      Géza pv.repair.pres.3sg.def the radio.acc
      ‘Géza repairs the radio.’
   b. *Géza megjavította a rádiót.*
      Géza pv.repair.pst.3sg.def the radio.acc
      ‘Géza repaired the radio.’
(9) **Achievement**

a. *A vonat háromkor érkezik.*
   the train 3.time arrive.pres.3sg
   ‘The train is arriving at 3 o’clock.’

b. *A vonat háromkor érkezett.*
   the train 3.time arrive.pst.3sg
   ‘The train arrived at 3 o’clock.’

(10) **Accomplishment**

a. *Dávid javítja a falat.*
   David repair.pres.3sg.def the wall.acc
   ‘David is repairing the wall.’

b. *Dávid javította a falat.*
   David repair.pst.3sg.def the wall.acc
   ‘David was repairing the wall.’

(11) **Activity**

a. *Misi dolgozik.*
   Michael work.pres.3sg
   ‘Michael is working.’

b. *Misi dolgozott.*
   Michael work.pst.3sg
   ‘Michael was working.’

We conclude from this that Hungarian past tense is tense, not aspect. It encodes the feature Precedence, just as the English past tense does. The English past tense form also spells out the feature Deixis, unambiguously identifying the temporal anchor of the clause as the utterance time. Since Deixis is not part of the Hungarian tense system, a Hungarian clause is temporally anchored by the clause containing it, if there is one, or by the utterance time if no other anchor is available.

4.3 **The features of the conditional**

The second part of our proposal about Hungarian is that the conditional mood spells out the tense feature Precedence and the mood feature Modality. These same features are attributed by Cowper (2005) to conditional verb forms in French and Spanish. In these languages, the conditional is morphologically transparent, consisting of the stem used in the future form (spelling out Modality) and the endings of the imperfective past (spelling out Precedence).

Semantically, counterfactual clauses are alternative continuations of earlier situations (Hall 2001), as shown schematically in (12). From the moment of speech, at the end of the realis timeline, Precedence moves the time reference back to an earlier point, which serves as a temporal nexus (Cowper 1996); from
this nexus, Modality indicates a possible (but not actual) continuation, which is thus a counterfactual situation parallel to the realis situation at the moment of speech.

\[(12)\]

\[
\text{nexus} \quad \text{moment of speech} \quad \text{counterfactual}
\]

The Hungarian conditional works in the same way as those of Spanish and French. The fact that it is morphologically opaque is a morphological accident. Within the framework of Distributed Morphology (Halle and Marantz 1993), we can say simply that Hungarian has a single vocabulary item, -na, that spells out both Precedence and Modality. When both of these features are present in a representation to be spelled out, -na will win the competition for insertion over vocabulary items that spell out only one or the other of them.

Past tense morphology appears overtly in the Hungarian past conditional, shown in (3b), repeated here in (13).

\[(13)\] \textit{Ha esett volna az eső, hazaindultunk volna.}  
if \textit{fall.past.3sg vol.3sg the rain home.start.past.1pl vol.3sg}  
‘If it had been raining, we would have headed home.’

There are two instances of Precedence in each of the clauses in (13). The one that is realized as regular past tense morphology on the main verb establishes a topic time that precedes the moment of speech. The second instance of Precedence, together with Modality, is spelled out as volna;\(^1\) these features identify a nexus precedent to the topic time, and look forward from that nexus along a formerly possible continuation to the counterfactual eventuality, as schematized in (14).

\[(14)\]

\[
\text{nexus} \quad \text{topic time} \quad \text{moment of speech} \quad \text{counterfactual}
\]

The sentence is thus counterfactual with respect to the situation at a point in the past, and not necessarily with respect to the time of utterance.

\(^{1}\)More precisely, the conditional suffix -\textit{na} spells out these features, and the auxiliary verb 'be' is inserted to provide a host for the suffix.
5. Consequences

5.1 Hungarian counterfactuals are cancellable

If the Hungarian conditional mood contains past tense semantics, and if Nevins’s (2002) generalization is correct, then we expect it to behave like other tense-based counterfactuals, rather than like the counterfactual complementizers of Mandarin, Tagalog, and Slovenian. In particular, we expect the counterfactuality to be cancellable, as it is in English. This prediction is borne out by examples such as (15), which parallels the cancellable counterfactual in the English example in (1).

(15) a. counterfactual:  
\[ Ha \ a \ beteg \ mérge \ gombát \ evett \]
if the patient poisonous mushroom.acc eat.pst.3sg.indef
\[ volna, \ mutatná \ tüniteit. \]
vol.cond.3sg show.pres.cond.3sg.def symptom.pl.acc.3sg.poss
‘If the patient had eaten poisonous mushrooms, (s)he would be exhibiting the symptoms of it.’

b. counterfactual implicature cancelled:  
\[ Ha \ a \ beteg \ mérge \ gombát \ evett \]
if the patient poisonous mushroom.acc eat.pst.3sg.indef
\[ volna, \ ugyanolyan \ tünetekelet \ mutatna, \]
vol.cond.3sg selfsame symptom.pl.acc show.pres.cond.3sg.indef
\[ mint \ amiket \ mutat. \]
\[ as \ which.pl.acc show.pres.3sg.indef \]
‘If the patient had eaten poisonous mushrooms, (s)he would exhibit the same symptoms as (what) (s)he is exhibiting.’
\[ Tehát \ mérge \ gombát \ evett. \]
therefore poisonous mushroom.acc eat.pst.3sg.indef
‘Therefore (s)he ate poisonous mushrooms.’

5.2 Hungarian counterfactuals are non-deictic

If the Hungarian tense system lacks the feature Deixis, and if Hungarian counterfactuals are tense-based, then we predict that the conditional mood will be relative in exactly the same sense in which the past tense is relative. As we saw in §3.2, an embedded past tense clause in Hungarian is precedent with respect to the time reference of the clause that contains it, not necessarily to the moment of speech. Analogously, we predict that an embedded counterfactual conditional clause in Hungarian should be counterfactual relative to the situation described by the clause that contains it, and not necessarily to the realis situation of the utterance.

It should thus be possible to use the conditional mood to talk about situations that are false with respect to a set of affairs described in a higher clause, even if they are true in the real world—as in the example in (16):
Context: János is a chemist who is in the early stages of Alzheimer’s disease. He expects that he will eventually forget the formula for nitrous oxide. When that happens...

Azt fogja gondolni, hogy ha tudná a képletét, akkor a saját konyhájában gyártathatná.

‘He will think that if he knew the formula for it, he would be able to make it in his kitchen.’

Under Bartos’s analysis, in which the conditional mood denotes an exclusion function Excl(\(w\)) that excludes the real world, the conditional morphology on \(tudná\) in (16) is unexpected, because the clause describes a situation that is true in the real world at the moment of speech.

However, according to Nevins (2002), the counterfactuality introduced by any Excl(\(x\)) function is always a cancellable implicature, so the possibility of using the conditional in (16) does not necessarily falsify Bartos’s claim that the conditional denotes Excl(\(w\)). One might argue, for example, that the counterfactuality in (16) has been somehow cancelled. However, taking this tack would wrongly predict that the conditional in (16) should be optional.

In a context such as (15), where the implicature of counterfactuality is not only cancellable, but is in fact cancelled, the conditional mood is optional: (15b) can be paraphrased using the indicative mood as in (17).

Ha a beteg mérgez gombát evett, ugyanolyan tünétek kell hogy mutasson mint amiket symptom.pl.acc should.3sg. that show.sbj.3sg.indef as what.pl.acc mutat.

‘If the patient ate poisonous mushrooms, then (s)he should exhibit the same symptoms (s)he is exhibiting.’ (cf. von Fintel 1998: 37)

In (16), however, the conditional is obligatory, because the counterfactuality is not, in fact, cancelled; it is simply computed relative to a situation that has not yet been realized—the situation denoted by the clause in which the conditional is embedded.

It must be noted here that even in English, counterfactual conditional clauses are less clearly deictic than indicative clauses. The English translation of (16) also uses Precedence (\(knew\)) to signal counterfactuality relative to a situation that has not yet been realized, though as we have seen, English finite tenses are Deictic and thus anchored by the utterance time. See Cowper (1996) for a discussion of the use of past tense morphology in similar cases. The example in (16) thus does not provide strong evidence that Hungarian counterfactuals are crucially non-deictic,
and that this lack of deixis is due to the absence of the feature Deixis in the inflectional system of the language.

Stronger evidence for a featural difference between Hungarian relative counterfactuals and English deictic counterfactuals can be seen in examples such as (18):

(18) Context: Suppose that Augusta, the elder sister of King George III, said in 1759, the year before the death of their grandfather King George II, “If I were a man, then I would become king when my grandfather dies.”

A present-day Hungarian speaker could report that speech event using indirect discourse as follows:

Augusza azt mondta, hogy ha férfi lenne, lett Augusta it.acc say.past.3sg that if man [be.cond.3sg, be.past.3sg volna], δ [lenne, *lett volna] a király mikor vol..cond] (s)he [be.cond.3sg, *be.past.3sg vol..cond] the king when nagyapja meghal.
grandfather perf.die.pres.3sg

‘Augusta said that if she had been a man, she would have become king when her grandfather died.’
(ttr.: ‘Augusta said that if she were, had been a man, she would become king when her grandfather dies.’)

The present conditional in the consequent of (18) exactly parallels the use of the present indicative in (4a), repeated here as (19):

(19) Péter azt mondta, hogy Mari alszik.
Peter it.acc say.past.3sg that Marie sleep.pres.3sg

‘Peter said that Marie was asleep.’

In Hungarian, both for conditionals and for ordinary indicatives, each embedded clause is temporally anchored by the clause it is embedded in, while in English, the embedded clauses are temporally deictic—i.e., temporally anchored by the utterance time. Thus English has she would have become king in the consequent of (18), where Hungarian has the present conditional, and English uses the past tense in (19), where Hungarian uses the present.

We conclude from this that both indicatives and conditionals in Hungarian are relative, not deictic, as expected if both are characterized by features of the tense system.

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2Michael Szamosi (p.c.) informs us that the possibility of the past conditional in the antecedent here corresponds to a meaning along the lines of ‘if she had been born a man,’ in which the counterfactual event is prior to the time of the saying. Crucially, the past conditional is not possible in the consequent.
5.3 A paradigm gap explained

In Hungarian, the future is formed with the auxiliary fogni, followed by the infinitival form of the verb, as shown in (20a). The auxiliary is homophonous with a main verb fogni, meaning 'hold', which is illustrated in (20b).

(20) a. Panni fogja a bort hozni.
   Annie rog.pres.3sg.def the wine.acc bring.inf
   'Annie will bring the wine.'

   b. Panni fogja a bort.
   Annie hold.pres.3sg.def the wine.acc
   'Annie is holding the wine.'

   The ambiguity of fogni disappears, however, when it appears in a past-tense form. Then, it can only be a main verb, as in (21a). Attempts to force a future-in-the-past reading result in ungrammaticality, as shown in (21b). Under the proposed analysis, this result is exactly as expected. The auxiliary verb fogni spells out the feature Modality, and the past tense morphology spells out Precedence. Since both of these features are spelled out by the conditional morphology, as shown in (21c), we expect that the conditional form will always block the insertion of auxiliary fog- + past. The blocking is shown in (22).

(21) a. Panni fogta a bort.
   Annie hold.past.3sg.def the wine.acc
   'Annie was holding the wine.'

   b. *Panni fogta a bort hozni.
   Annie rog.pst.3sg.def the wine.acc bring.inf
   'Annie was holding the wine bring.'
   (Target: 'Annie would bring the wine.')

   c. Panni hozná a bort.
   Annie bring.cond.3sg.def the wine.acc
   'Annie would bring the wine.'
In (22) both Modality and Precedence appear in Infl, and are spelled out by 
-na, which blocks the insertion of the auxiliary verb fog- and the past tense marker 
-t-. Since -na is a suffix, the main verb hoz- undergoes PF movement leftwards, 
giving the sequence hoz+na+a, which surfaces as hozná.3 If the auxiliary fog- had 
been inserted, hoz- would have been spelled out in situ with the default infinitival 
suffix -ni, as in (20a).

For us, the impossibility of inflecting futurate fogni for past tense results from 
morphological blocking, not from any semantic incompatibility. In fact, 
nothing prevents fogni from receiving a future-under-past interpretation when it 
is embedded in (and thus temporally anchored by) a past-tense clause, as in (23). 
Of course, since Hungarian has relative tense, fogni in this situation bears present-
tense morphology, signalling that it is to be interpreted as simultaneous with the 
time of the higher clause. As shown in (24), fog- is inserted to spell out Modality 
in the embedded clause.

(23) Nem tudtam, hogy hat hónap múlva fogok venni 
not know.pst.1sg.def that six months later fog.pres.1sg.indef buy.inf 
egy autót. 
a car.acc 
‘I didn’t know that in six months I was going to buy a car.’ 
(ltr.: ‘I didn’t know that in six months I am going to buy a car.’)

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3We are assuming PF movement here for expository purposes only. The details of Hungarian word 
order are beyond the scope of this paper.
6. Conclusion

Although the conditional in Hungarian does not contain the past tense morphologically, as it does in French and Spanish, we have seen that it does contain the semantics of past tense, and that it thus unsurprisingly patterns with other languages of the “EM” type in Nevins’s typology.

The superficial differences between Hungarian and French or Spanish follow automatically from two things: first, that Hungarian makes no use of the inflectional feature Deixis, while the other two languages use it, and second, that Hungarian has a single vocabulary item which spells out both Modality and Precedence, while the other two languages lack such a morpheme and thus use the same vocabulary items as are found in the past tense and the future.

References


