

28 The Existential Tense in Hungarian

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28.1 Introduction

In a certain respect, the tense system of Hungarian is remarkably straightforward. There are only two morphologically marked tenses, past and nonpast (the latter is known as the present tense in traditional descriptions). Reference to the future may be expressed analytically with the help of the nonpast tense form of the future auxiliary verb *fog* 'will' together with the infinitival form of the main verb. The following examples with *lakik* 'live, reside' illustrate the basic paradigm.

- (1) a. Réka *Varsóban* lakott.
Réka Warsaw-in live-PAST
'Réka lived in Warsaw.'
b. Réka *Varsóban* lakik.
Réka Warsaw-in live-NONPAST
'Réka lives in Warsaw.'
c. Réka *Varsóban* fog lakni.
Réka Warsaw-in will-NONPAST live-1NFIN
'Réka will live in Warsaw.'

Another way of referring to the future is with the help of the adverb *majd* 'then, later (on)' in combination with the nonpast tense.¹

- (2) Réka majd *Varsóban* lakik. (cf. (1b))
Réka later-on Warsaw-in live-NONPAST
'Réka will live in Warsaw.'

A characteristic syntactic feature of such constructions is that a "preverb" appears immediately before the finite verb. As an aid to those unfamiliar with Hungarian, I will italicize any preverbs in the examples. In (1) and (2), for example, the preverb is *Varsóban* 'in Warsaw'. In general, a verb may have at most one preverb, but it may also not have any preverb at all. To state the syntactic generalization more precisely, if a clause is affirmative, neutral (i.e., does not contain a focused constituent) and in a

Fr.: The Nature of the Word:
Studies in Honor of Paul Kiparsky,
ed. by Kristin Hanson and Sharon
Inkelas, pp. 655-674. The MIT
Press, 2009.

primary tense, then any preverb must appear immediately before the finite verb. For ease of reference, I will call this the ADJACENCY CONDITION.

- (3) If a verb has a preverb, then the preverb immediately precedes the finite verb in an affirmative, neutral clause in a primary tense. (ADJACENCY CONDITION)

If a clause does not satisfy the ADJACENCY CONDITION, then it is unacceptable on the intended (neutral) interpretation. The following variants of the sentences in (1) and (2), for example, are unacceptable because the ADJACENCY CONDITION is violated.

- (4) a. #Réka lakott *Varsóban*. (cf. (1a))
 b. #Réka lakik *Varsóban*. (cf. (1b))
 c. #Réka fog *Varsóban* lakni. (cf. (1c))
 d. #Réka majd lakik *Varsóban*. (cf. (2))

In (4), the preverb follows the finite verb, instead of preceding it as is required by the ADJACENCY CONDITION.²

If a verb lacks a preverb, for example, *lát* 'see', then the effect of the ADJACENCY CONDITION is witnessed only in the analytic future tense.

- (5) a. Réka látta a filmet.
 Réka see-PAST the film-ACC
 'Réka saw the film.'
 b. Réka gyakran látja a filmet.
 Réka often see-NONPAST the film-ACC
 'Réka often sees the film.'
 c. Réka *látni* fogja a filmet.
 Réka see-InfIN will the film-ACC
 'Réka will see the film.'
 d. Réka majd látja a filmet.
 Réka later-on see-NONPAST the film-ACC
 'Réka will see the film.'

As seen in (5c), if the main (infinitival) verb lacks a preverb of its own, then it acts as the preverb of the future auxiliary *fog* 'will'. (6) is thus unacceptable on the intended interpretation, because it violates the ADJACENCY CONDITION.³

- (6) #Réka fogja *látni* a filmet. (cf. (5c))

In the other examples in (5), there is no preverb to worry about, so the ADJACENCY CONDITION is vacuously satisfied.

Preverbs differ with respect to their syntactic category, and the oldest preverbs in Hungarian (e.g., *ki* 'out') are basically separable verbal prefixes. Such "traditional preverbs" are standardly written together with the verb that they belong to whenever they precede it, but for clarity I will deviate from this practice and employ a centered dot (·) to highlight the boundary between them.

- (7) a. Kati *ki*-ment a kertbe.
 Kati out-go-PAST the garden-into
 'Kati went out into the garden.'
 b. Kati gyakran *ki*-megy a kertbe.
 Kati often out-go-NONPAST the garden-into
 'Kati often goes out into the garden.'
 c. Kati *ki* fog menni a kertbe.
 Kati out will-NONPAST go-InfIN the garden-into
 'Kati will go out into the garden.'
 d. Kati majd *ki*-megy a kertbe.
 Kati later-on out-go-NONPAST the garden-into
 'Kati will go out into the garden.'

As expected, if *ki* 'out' were to follow the verb as in (8), in violation of the ADJACENCY CONDITION, the sentences would be unacceptable.

- (8) a. #Kati ment *ki* a kertbe. (cf. (7a))
 b. #Kati gyakran megy *ki* a kertbe. (cf. (7b))
 c. #Kati fog *ki*-menni a kertbe. (cf. (7c))
 d. #Kati majd megy *ki*. (cf. (7d))

As the formulation of the ADJACENCY CONDITION implies, there are three cases in which it fails to apply. The first is in negative clauses: the negative marker *nem* immediately precedes the finite verb and so forces a preverb to follow the verb. The second is in nonneutral clauses, that is, in clauses that involve focus: a focused constituent appears immediately before the finite verb and so likewise requires a preverb to follow the verb. These two cases are illustrated in (9) and (10), respectively. (Focused constituents are strongly stressed, and I will underline a word in order to indicate that it is strongly stressed, as shown in (10a). However, as we will see in connection with the existential tense below, not every strongly stressed constituent is necessarily focused.)

- (9) a. Réka nem lakott *Varsóban*. (cf. (1a))
 'Réka did not live in Warsaw.'
 b. #Réka nem *Varsóban* lakott.

- (10) a. Kati ment *ki* a kertbe. (cf. (7a), (8a))
 'It was Kati who went out into the garden.'
 b. *Kati *ki*-ment a kertbe.

However, of present interest is the third case in which the ADJACENCY CONDITION fails to apply, namely, when the tense is not primary. There is one nonprimary tense in Hungarian, which I will call the "existential tense" (or *egzisztenciális igeidő* in

Hungarian). The existential tense is characterized by two salient formal features, as illustrated in (11): first, the preverb (if there is one) follows the finite verb; and second, the finite verb is strongly stressed, here indicated by underlining as before, and any constituents following it are weakly stressed.

- (11) a. Réka lakott (már) *Varsóban*.
 Réka live-PAST (already) Warsaw-in
 'Réka has lived in Warsaw (before).'
 b. Kati ment (már) *ki a kertbe*.
 Kati go-PAST (already) out the garden-into
 'Kati has gone out into the garden (before).'

The existential tense is also typically (though not obligatorily) accompanied by one of the two adverbs *már* 'already' or *még* 'still', depending on whether the time referred to is past (*már*) or future (*még*). If used, the adverb generally appears between the finite verb and the preverb, as seen in (11).

If future time is referred to, then the existential tense may be expressed in two ways, depending on whether the future auxiliary *fog* 'will' is chosen or not, though in either case the morphological tense of the finite verb is nonpast.

- (12) a. Kati fog (még) *ki:menni a kertbe*.
 Kati will-NONPAST (still) out-go-INFIN the garden-into
 'Kati will go out into the garden (still).'
 b. Kati megy (még) *ki a kertbe*.
 Kati go-NONPAST (still) out the garden-into
 'Kati will go out into the garden (still).'

Recall that if future time is referred to, the optional adverb must be *még* 'still'.⁴ Moreover, *majd* 'then, later (on)' (see (2)) does not figure in the existential tense.

If the verb lacks a preverb, there is one less formal cue for the intended interpretation, so here the adverb is essential for distinguishing the existential tense from the case in which the finite verb is simply focused.

- (13) a. Réka látta (már) *a filmet*. (cf. (5a))
 Réka see-PAST (already) the film-ACC
 'Réka has seen the film (before).'
 b. Réka látta *a filmet*. (cf. (5a))
 Réka see-PAST the film-ACC
 'Réka did see the film.'
 (14) a. Réka fogja (még) *látni a filmet*. (cf. (6))
 Réka will-NONPAST (still) see-INFIN the film-ACC
 'Réka will see the film (still).'

- b. Réka fogja *látni a filmet*. (cf. (6))
 Réka will-NONPAST see-INFIN the film-ACC
 'Réka will see the film.'

The finite verbs in (13a) and (14a), although strongly stressed, are not necessarily focused. In this respect, they contrast with the finite verbs in (13b) and (14b), which must be focused. However, since the presence of a preverb allows the existential tense to be more easily controlled for, I will mostly keep to verbs that have a preverb in the remainder of the chapter.

In a sense to be made precise in section 28.4, the existential tense is really a composite tense consisting of an existential tense component and a primary tense component. The existential tense component may be either past or future, and I will speak of the "past existential tense" (as in (11)) or the "future existential tense" (as in (12)), accordingly. The primary tense component specifies the reference time, that is, the time with respect to which event time is located. The primary tense component is most typically present (as in (11) and (12)), thereby constraining the reference time to be the speech time, but in principle it may also be past in combination with the past existential tense component or future in combination with the future existential tense component.⁵ I will return to this composite character of the existential tense in section 28.3.

The free translations in (11) suggest that the existential tense corresponds to the English perfect. However, this is only partly true, as I will argue in the next section.

28.2 Relation to the Perfect

It is often said that the present perfect exhibits four types of meaning across languages (Comrie 1976, 56–61; Binnick 1991, 98–104). The first of these is known as the "perfect of persistent situation," or the "universal perfect."⁶ As Comrie (pg. 60) remarks, it is used "to describe a situation that started in the past but continues (persists) into the present, as in *we've lived here for ten years*." In Hungarian, the present tense and not the past existential tense is employed for the perfect of persistent situation, as the following contrast demonstrates.

- (15) a. Réka tavaly óta *Varsóban lakik*. (present)
 Réka last-year since Warsaw-in live-NONPAST
 'Réka has lived in Warsaw since last year.'
 b. #Réka tavaly óta *lakott* (már) *Varsóban*. (existential)
 Réka last-year since live-PAST (already) Warsaw-in

The second type of meaning is the "perfect of result," or the "stative perfect." In this use, the result of a past situation is said to hold at the present. For example, the

result of a particular arrival is that the person who arrived is still present. As the two answers in (17) to the question in (16) demonstrate, in Hungarian the past tense and not the past existential tense is used to express the perfect of result.

- (16) Kati már *itt* van?
Kati already here is
'Is Kati already here?'

- (17) a. Igen, *meg-érkezett*. (past)
yes PREV-arrive-PAST-sh
'Yes, she has arrived.'
b. #Igen, *érkezett* (már) *meg*. (existential)
yes arrive-PAST-sh (already) PREV

The third type of meaning is the "perfect of recent past," or the "hot news" perfect." This perfect is used to report recent situations of noteworthy present relevance—the standard diagnostic for this type of perfect is its natural co-occurrence with the adverb *just*. Again, as seen in (18), in Hungarian the past tense is used instead of the past existential tense for the perfect of recent result.

- (18) a. Éppen *meg-gyilkolták* az elnököt. (past)
just PREV-assassinate-PAST-they the president-ACC
'The president has just been assassinated.'
b. #Éppen *gyilkolták* (már) *meg* az elnököt. (existential)
just assassinate-PAST-they (already) PREV the president-ACC

Finally, the fourth type is the "experiential perfect," or the "existential perfect." According to Comrie (p. 58), the experiential perfect "indicates that a given situation has held at least once during some time in the past leading up to the present." At this point it comes as no surprise that the past existential tense has the function of the experiential perfect, as the examples in (19b)⁷ and (20b) show.

- (19) a. Réka *Lengyelországban* volt. (past)
Réka Poland-in be-PAST
'Réka was in Poland.'
b. Réka volt (már) *Lengyelországban*. (existential)
Réka be-PAST (already) Poland-in
'Réka has been to Poland (before).'

- (20) a. Anita *cápauszonyt* evett. (past)
Anita shark-fin-ACC eat-PAST
'Anita ate shark's fin.'
b. Anita evett (már) *cápauszonyt*. (existential)
Anita eat-PAST (already) shark-fin-ACC
'Anita has eaten shark's fin (before).'

Thus, of the four types of meaning that the present perfect exhibits across languages, only that of the experiential perfect is covered by the past existential tense. Consequently, the (past) existential tense is clearly a kind of perfect. Moreover, since the past existential tense corresponds to a single use of the present perfect, it offers empirical support for the view that the (present) perfect is in at least two ways ambiguous, as opposed to having a single meaning that is then contextually fleshed out in various ways. Recently, even authors only concerned with English have spoken in favor of an ambiguity hypothesis. For example, Mittwoch (1988, section 2) assigns the experiential perfect and the perfect of persistent situation different sets of truth conditions. Binnick (1991, 99) states that "the perfect properly speaking may be ambiguous only between stative and existential perfect, though it also has the meaning of universal perfect and in certain contexts that of relative past." Michaelis (1994, section 3) also explicitly argues for an ambiguity between the experiential perfect and the perfect of result. Finally, Kiparsky (2001) shows how three puzzles relating to the perfect can be solved if the experiential perfect is semantically distinguished from the perfect of result.⁸

Even so, it must be conceded that the correspondence between the existential tense and the experiential perfect is not perfect. The glitch is that although the *present* experiential perfect is best rendered by the *past* existential tense, as I have just argued, the *future* experiential perfect cannot be expressed by the *future* existential tense. In this connection, recall the pair of examples of the future existential tense in (12): neither sentence can mean 'Réka will have gone out into the garden (before)', but this is what these sentences would mean if the future existential tense corresponded to a future experiential perfect. Instead, the future existential tense is really a kind of future tense, with the event time following the reference time, where the reference time is the speech time if the primary tense component is present, as it is in (12).

28.3 Further Properties

In section 28.1 I stated that the existential tense is really a composite tense, consisting of a past or future existential tense component plus a primary tense component that constrains the reference time. Typically, and in the examples that we have considered so far, the primary tense component is present (and thus the reference time is the speech time). However, it is also feasible for both the past existential tense component to combine with a past tense component and the future existential tense component to combine with a future tense component.

- (21) a. Kati *ment* (már) *ki* a kertbe, *amikorra* Réka
Kati go-PAST (already) out the garden-into by-the-time Réka
meg-érkezett.
PREV-arrive-PAST
'Kati had gone out into the garden (before) by the time Réka arrived.'

- b. *Kati megy* (még) *ki a kertbe,* *amikor Réka*
Kati go-NONPAST (still) out the garden-into when *Réka*
meg-érkezik.
 PREV-arrive-NONPAST
 ‘Kati will go out into the garden (still) when Réka arrives.’

In (21a) the reference time is when Réka arrived, and Kati went out into the garden sometime before that. As seen from the free translation, this context would call for the past perfect. In (21b) the reference time is when Réka arrives, and Kati will go out into the garden sometime after that. Notice that this would not be an appropriate context for the future perfect in English. This is consistent with the claim in the previous section that the future existential tense does not correspond to the future experiential perfect.

It is not possible, however, for either the past existential tense component to combine with a future tense component or for the future existential tense component to combine with a past tense component.

- (22) a. **Kati ment* (már) *ki a kertbe,* *amikorra Réka*
Kati go-PAST (already) out the garden-into by-the-time *Réka*
meg-érkezik.
 PREV-arrive-NONPAST
 *‘Kati has gone out into the garden (before) by the time Réka arrives.’
 b. **Kati megy* (még) *ki a kertbe,* *amikor Réka meg-érkezett.*
Kati go-NONPAST (still) out the garden-into when *Réka PREV-arrive-PAST*
 *‘Kati will go out into the garden (still) when Réka arrived.’

Such examples indicate that just as the past existential tense requires the reference time to be no later than the speech time, the future existential tense constrains it to be no earlier than the speech time.

A central feature of the existential tense (whether past or future) is that it is subject to a “repeatability condition.” In brief, this means that in order for the use of existential tense to be acceptable, the kind of situation described should be repeatable. The use of a primary tense, in contrast, implies no such repeatability. To illustrate this condition, consider that unless we allow for the possibility of Réka’s rebirth, (23a) is unacceptable.

- (23) a. #*Réka született* (már) *Budapesten.*
Réka be-born-PAST (already) Budapest-in
 #‘Réka has been born in Budapest (before).’
 b. *Réka Budapesten született.*
Réka Budapest-in be-born-PAST
 ‘Réka was born in Budapest.’

Similarly, since it is impossible for someone to eat a particular apple more than once, (24a) is ruled out.

- (24) a. #*Kati ette* (már) *meg az almát.*
Kati eat-PAST (already) PREV the apple-ACC
 #‘Kati has eaten the apple (before).’
 b. *Kati meg-ette* az *almát.*
Kati PREV-eat-PAST the apple-ACC
 ‘Kati ate the apple.’

Finally, (25a) is unacceptable if Réka married Tamás once and is still married to him.

- (25) a. #*Réka ment* (már) *férjhez Tamáshoz.*
Réka go-PAST (already) husband-to Tamás-to
 #‘Réka has married Tamás (before).’
 b. *Réka férjhez ment Tamáshoz.*
Réka husband-to go-PAST Tamás-to
 ‘Réka married Tamás.’

The unacceptable sentences in (23)–(25), however, can all be made acceptable with a more judicious choice of NP in the relevant position (subject or object). If the relevant NPs are made indefinite (bare plurals or bare singulars), the sentences describe kinds of situations that are repeatable, as in (26).

- (26) a. *Születtek* (már) *Budapesten* *híres emberek.* (cf. (23a))
 be-born-PAST (already) Budapest-in famous people
 ‘Famous people have been born in Budapest (before).’
 b. *Kati evett* (már) *almát.* (cf. (24a))
Kati eat-PAST (already) apple-ACC
 ‘Kati has eaten an apple (before).’
 c. *Tamáshoz mentek* (már) *férjhez gazdag nők.* (cf. (25a))
Tamás-to go-PAST (already) husband-to wealthy women
 ‘Wealthy women have married Tamás (before).’

Note that the repeatability condition is not violated just because something happens to have happened only once. For instance, it may be that Réka has been to Poland only once or that Anita has eaten shark’s fin only once, but the acceptability of (19b) and (20b) is not affected by this. Such examples indicate that the repeatability condition is irreducibly modal, because it does not suffice to look at what has actually happened, but it is also necessary to consider what *could* (still) happen.

The idea that the repeatability condition is relativized to the reference time is supported by the unacceptability of examples in which one of the NP referents no longer

exists. For example, (27a) is unacceptable because Krzysztof Kieślowski, the well-known Polish film director, is no longer alive.

- (27) a. #Kieślowski lakott (már) *Varsóban*.
 Kieślowski live-PAST (already) Warsaw-in
 #‘Kieślowski has lived in Warsaw (before).’
 b. Kieślowski *Varsóban* lakott.
 Kieślowski Warsaw-in live-PAST
 ‘Kieślowski lived in Warsaw.’

Similarly, (28a) is unacceptable because the German Democratic Republic no longer exists.

- (28) a. #Anita tanult (már) *az NDK-ban*.
 Anita study-PAST (already) the GDR-in
 #‘Anita has studied in the GDR (before).’
 b. Anita *az NDK-ban* tanult.
 Anita the GDR-in study-PAST
 ‘Anita studied in the GDR.’

Strictly speaking, Kieślowski could have lived in Warsaw more than once in his life (with breaks in between), just as Anita could have studied in the GDR more than once—in this sense, repeatability would be satisfied. However, the difficulty is rather that Kieślowski cannot live in Warsaw again, just as Anita cannot study in the GDR again. The unacceptability of sentences like (27a) and (28a) can thus be subsumed under the repeatability condition once it is relativized to the reference time.

Note that the unacceptability of examples such as (27a) and (28a) cannot be reasonably attributed to the violation of any existence requirement on the NP referents, given the acceptability of the following sentences.⁹

- (29) a. Kieślowski ki tüntettek (már) *ki*.
 Kieślowski-ACC honor-PAST-they (already) PREV
 ‘Kieślowski has been honored (before).’
 b. Anita írt (már) *az NDK-ról*.
 Anita write-PAST (already) the GDR-about
 ‘Anita has written about the GDR (before).’

Just as Kieślowski need not be alive in order to be honored again, the GDR need not exist in order for Anita to write about it again. Once the repeatability condition is satisfied, it does not matter whether the NP referents exist at the reference time or not.

Another effect that the repeatability condition can also subsume is that although both of the following sentences are acceptable, they differ in meaning.

- (30) a. Anita tanult (már) *lengyelt vasárnap*.
 Anita study-PAST (already) Polish-ACC Sunday
 ‘Anita has studied Polish on Sunday (before).’
 b. Anita *lengyelt* tanult *vasárnap*.
 Anita Polish-ACC study-PAST Sunday
 ‘Anita studied Polish on Sunday.’

(30a) can only mean that Anita has studied Polish on some Sunday or other before—*vasárnap* ‘Sunday’ behaves like an indefinite NP in this context. In contrast, (30b) is normally understood to mean that Anita studied Polish last Sunday. Clearly, Anita cannot study Polish on (last) Sunday again, though she can certainly study Polish on some Sunday or other again. Thus, it seems plausible to attribute the lack of a specific reading of *vasárnap* in (30a) to the repeatability condition.

The repeatability condition also applies to the future existential tense, as the following contrast shows.

- (31) a. #Réka unokahúga születtek (még) *Budapesten*. (cf. (23a))
 Réka niece-poss be-born-NONPAST (still) Budapest-in
 #‘Réka’s niece will be born in Budapest (still).’
 b. Születnek (még) *Budapesten* *híres emberek*. (cf. (26a))
 be-born-NONPAST (still) Budapest-in famous people
 ‘Famous people will be born in Budapest (still).’

The sentence in (31a) seems to suggest that Réka’s niece could have been born in Budapest before, but since this is not possible, the example is unacceptable. If the repeatability condition “looks backward” in the case of the future existential tense, then it is not satisfied in such cases, precisely because the situation described is not repeatable prior to the reference time (which is the speech time in (31a)).

In sum, the repeatability condition takes one of two forms, depending on whether the past existential tense or the future existential tense is chosen. In the case of the past existential tense it implies that the kind of situation described may happen again, whereas in the case of the future existential tense it entails that the kind of situation described may have happened before.

28.4 An Analysis

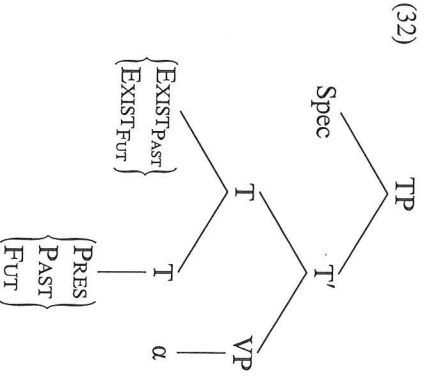
Although the existential tense is effectively ignored in traditional Hungarian grammars, I am not the first to comment on it in recent times. In fact, it goes by several names in the contemporary literature on Hungarian. Kálmán et al. (1989, section 3.2.4.2) invent for it the very original but unfortunately also somewhat misleading term *nyomatékos folyamatos beszédérték* ‘emphatic-continuous speech value’.¹⁰ Kiefer (1994, 444) calls it the “experiential reading,” while É. Kiss (1994, 49) and

Maleczki (2001, 178) refer to it as the “existential aspect” and the *egzisztenciális aspektus* (“existential aspect”), respectively. Wacha (1991, 89–90) coins the term *közlő aspektus* (“informing aspect”), which Szabolcsi (1992, 116) also adopts. I have chosen the term “existential tense” to suggest that the interpretation of this construction is more like that of a tense than an aspect, but nothing of import rests on this choice.

It is fair to say that although all of these authors are well aware of the existential tense and even mention some of its properties, none of them offers an explicit analysis of it—indeed, none of them is really even concerned with the existential tense per se. In an attempt to fill in this gap, I will have a go at an analysis in the next three sections.

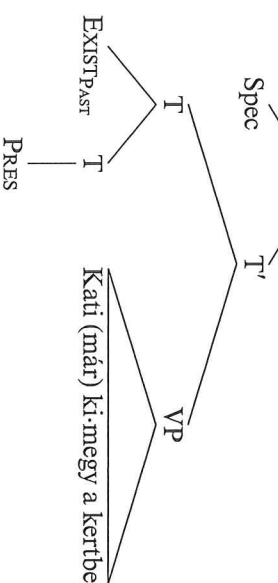
28.4.1 A Rudimentary Syntactic Analysis

Although a detailed syntactic analysis is beyond the scope of this chapter, I need, minimally, to say something about the form of the structures that are input to semantic interpretation. The idea is that the existential tense is represented by either a past existential tense operator *EXIST_{PAST}* or a future existential tense operator *EXIST_{FUT}* that first combines with a primary tense operator (which is *PRESENT*, *PAST*, or *FUT(URE)*) in *T* (the head of *TenseP*) and then combines with the *VP* (which includes the verb and its arguments as well as any *VP*-adjuncts).



Note that there is a discrepancy between such structures and the actual surface position of the verb, which precedes its preverb and is arguably outside of the *VP*. For example, in (33a) (repeated from (11b)) the (strongly stressed) verb *ment* ‘go-PAST’ obligatorily precedes its preverb *ki* ‘out’, whereas the two form a unit within the *VP* in the structure that I postulate is the input for semantic interpretation, as seen in (33b), where *megy* ‘go’ is taken to represent the untensed form of the verb.¹¹

- (33) a. *Kati ment* (már) *ki* a kertbe.
 Kati go-PAST (already) out the garden-into
 b.



In terms of a traditional generative framework, I take structures of the form in (32) to be (partial) LF representations that are the result of reconstructing the verb back into its base position. In order to account for the surface position of the verb, I suggest that the verb appears in (more precisely, is adjoined to) *T* at *S*-structure. Note that it is not crucial that the head position be *T* in (32) (as opposed to *ASP(ECT)* or a comparable head category), but *T* seems as natural a choice as any for the position of the existential tense operator.

É. Kiss (1994, section 7.2) proposes that the existential tense is represented by an aspectual operator “*EXIST*” that occupies the focus position, which is [*Spec*, *VP*] in her analysis. Since the (immediately preverbal) focus position is syntactically fixed in Hungarian, her account predicts that the existential tense and focus will be in complementary distribution. However, as seen in (34), this prediction is not borne out: the existential tense may indeed co-occur with a focused constituent.

- (34) a. *Ki* ment (már) *ki* a kertbe?
 who went (already) out the garden-into
 ‘Who has gone out into the garden before?’
 b. *Kati* ment (már) *ki* a kertbe.
 Kati went (already) out the garden-into
 ‘It is Kati who has gone out into the garden before.’

The NPs *ki* ‘who’ and *Kati* in (34a) and (34b), respectively, fill the focus position. Both NPs bear a strong stress that has the effect of removing the strong stress that the verb would normally carry in the existential tense. Since the presence of focus is compatible with the existential tense in such sentences, we must conclude that the existential tense operator does not occupy the focus position.

The main reason for thinking that the existential tense operator directly combines with a primary tense operator is that the existential tense arises only with tensed verb

forms—any context demanding an untensed verb form is incompatible with the existential tense. One such context is that of absolute clauses: as seen in the contrast between (35a) and (35b), if the verb is inflected as an adverbial participle, the *preverb* must appear before the verb, and the word order and stress pattern characteristic of the existential tense are ruled out.

- (35) a. Azt a tételt (már) *be-bizonývta*, Réka *el-nyerte*
 that-ACC the theorem-ACC (already) PREV-prove-PART Réka PREV-win-PAST
 a díjat.
 the prize-ACC
 ‘Having (already) proved that theorem, Réka won the prize.’
 b. *Azt a tételt bizonývta (már) *be*, Réka *el-nyerte*
 that-ACC the theorem-ACC prove-PART (already) PREV Réka PREV-win-PAST
 a díjat.
 the prize-ACC

If the existential tense operator directly combines with a primary tense operator, as in (32), then the primary tense operator is one of the existential tense operator’s (two) arguments, so it follows naturally that there is no existential tense without a primary tense.

A final point concerns the morphological tense of the verb in the existential tense. Here there are really only two choices, given that there are only two morphological tenses, past and nonpast (recall that the future auxiliary *fog* ‘will’ appears in the non-past tense, as in (1c)). Assuming the structure in (32), it is perhaps not surprising that the existential tense operator determines the morphological tense of the verb, independent of which primary tense operator it combines with.

- (36) a. T is morphologically realized as past.
 EXIST_{PAST} T
 T
 {PRES
 PAST}
 EXIST_{PAST} T
 T
 {PRES
 FUR}
- b. T is morphologically realized as nonpast.
 EXIST_{FUR} T
 T
 {PRES
 FUR}

Note, in particular, that the present tense operator in (36a) is not realized as nonpast, even though that tense is perfectly possible in the absence of the past existential tense operator (see (1b)).

28.4.2 A Formal Semantic Analysis

The semantics for the existential tense that I will present presupposes a universe of discourse that contains three sorts of individuals: “events” (e, e', \dots), “times” (t, t', \dots), and “ordinary individuals,” where the domain of events also includes processes and states and that of times includes both instants and periods. Variables for ordinary individuals are not explicitly introduced here only because I lack the space to detail the semantic derivation of VPs. Further notions that play a role are a “temporal trace” function (τ) that maps an event to its “run time,” both a “temporal precedence relation” (\prec) and an “immediate temporal precedence” relation (\ll) between events and/or times (these two relations are interdefinable),¹² a (mereological) “temporal overlap” relation (\circ) between times,¹³ and an “epistemic possibility” operator (\diamond). Strictly speaking, the possibility operator should be indexed with the “attitude holder,” that is, the person whose epistemic state the operator is relativized to (typically, the speaker), but for simplicity I will leave this index implicit.

As should be clear by now, there are two existential tense operators: a (relative) past operator and a (relative) future operator, where “relative” means relative to the reference time, the latter being fixed by the primary tense.¹⁴ In the two most common uses of the existential tense, the reference time is now (i.e., the speech time), which is specified by the present tense. In its two less common uses, the reference time is either prior to the speech time (in the case of the past existential tense in combination with the past tense operator—recall (21a)) or subsequent to it (in the case of the future existential tense in combination with the future tense operator—recall (21b)). I assume that the (untensed) VP in (32) is analyzed as a (one-place) predicate of events, which presupposes that verbs have an event argument, as is common in an event semantic framework. In what follows, I will illustrate the analysis by deriving both the past existential tense sentence in (33a) (= (11b)) and the corresponding future existential tense sentence in (12b). For simplicity, I will ignore the contribution of the (optional) adverbs *már* ‘already’ and *még* ‘still’.¹⁵

The analysis of the past existential tense operator EXIST_{PAST} is shown in (37), where P is a variable for (first-order) predicates of events and \mathcal{G} is a variable for (second-order) predicates of predicates of times.

- (37) EXIST_{PAST} $\rightsquigarrow \lambda e \lambda P [\mathcal{G} (\lambda t [\exists e' [P(e') \wedge e \prec t \wedge$
 $\neg(\text{now} \prec t) \wedge$
 $\exists t' [e \ll t' \wedge t' \prec t \wedge \neg \exists e'' [P(e'') \wedge t' \circ \tau(e'')]]]] \wedge$
 $\diamond \exists e'' [P(e'') \wedge t \prec e'']]]]]$
 $\stackrel{\text{def}}{=} \text{exist-past}$

In prose, the past existential tense operator applies first to \mathcal{F} , which stands for a primary tense operator representing the content of T, and then to P , which stands for the event predicate representing the content of the VP, and asserts that an event e of type P occurs sometime before t . t does not follow now (now is a constant denoting the speech time). There is a time t' immediately following e and preceding t that does not overlap with an event e' of type P , and it is (epistemically) possible for an event e'' of type P to occur sometime after t .

The three primary tense operators PRES, PAST, and FUT are represented in (38): each applies to a predicate Q of times and specifies the reference time t_i to be now, before now, or after now, accordingly.

- (38) a. $[\text{r PRES}] \rightsquigarrow \lambda Q[\mathcal{Q}(\text{now})]$
 b. $[\text{r PAST}] \rightsquigarrow \lambda Q[\mathcal{Q}(t_i) \wedge t_i < \text{now}]$
 c. $[\text{r FUT}] \rightsquigarrow \lambda Q[\mathcal{Q}(t_i) \wedge \text{now} < t_i]$

The result of applying the past existential tense operator in (37) to the present tense operator in (38a) is shown in (39), which represents the most common use of the past existential tense.

- (39) $[\text{r EXIST}_{\text{PAST}} [\text{r PRES}]] \rightsquigarrow \text{exist-past}(\lambda Q[\mathcal{Q}(\text{now})]) =$
 $\lambda P[\exists e[P(e) \wedge e < \text{now} \wedge$
 $\neg(\text{now} < \text{now}) \wedge$
 $\exists t'[e \ll t' \wedge t' < \text{now} \wedge \neg \exists e'[P(e') \wedge t' \circ \tau(e')]]] \wedge$
 $\diamond \exists e''[P(e'') \wedge \text{now} < e'']]$
 $\stackrel{\text{def}}{=} \text{exist-past[pres]}$

The (untensed) VP in (33b) is analyzed as follows.

- (40) $[\text{vp Kati ki-megy a kertbe}] \rightsquigarrow \lambda e[\text{kati-go-out-into-the-garden}(e)]$

Applying the composite past existential tense operator in (39) to the event predicate in (40), we obtain the result in (41), which represents the meaning of (33a).

- (41) $[\text{trp} [\text{r EXIST}_{\text{PAST}} [\text{r PRES}]] [\text{vp Kati ki-megy a kertbe}]] \rightsquigarrow$
 $\text{exist-past[pres]}(\lambda e[\text{kati-go-out-into-the-garden}(e)]) =$
 $\exists e[\text{kati-go-out-into-the-garden}(e) \wedge e < \text{now} \wedge$
 $\neg(\text{now} < \text{now}) \wedge$
 $\exists t'[e \ll t' \wedge t' < \text{now} \wedge$
 $\neg \exists e'[\text{kati-go-out-into-the-garden}(e') \wedge t' \circ \tau(e')]] \wedge$
 $\diamond \exists e''[\text{kati-go-out-into-the-garden}(e'') \wedge \text{now} < e'']]$

In prose, this formula asserts that there is an event e in which Kati goes out into the garden sometime before now, now does not follow now, there is a time t' immediately following e and preceding now that does not overlap with an event e' in which

Kati goes out into the garden, and it is (epistemically) possible for there to be an event e'' in which Kati goes out into the garden sometime after now.

The analysis of the future existential tense operator $\text{EXIST}_{\text{FUT}}$ is essentially the converse of that of the past existential tense operator, that is, the reference time t precedes an event e of type P , now does not follow t , there is a time t' following t and immediately preceding e that does not overlap with an event e' of type P , and it is (epistemically) possible for an event e'' of type P to occur sometime before t .

- (42) $\text{EXIST}_{\text{FUT}} \rightsquigarrow \lambda \mathcal{F} \lambda P[\mathcal{F}(\lambda e[\exists e[P(e) \wedge t < e \wedge$
 $\neg(t < \text{now}) \wedge$
 $\exists t'[t < t' \wedge t' \ll e \wedge \neg \exists e'[P(e') \wedge t' \circ \tau(e')]]] \wedge$
 $\diamond \exists e''[P(e'') \wedge e'' < t]]]$
 $\stackrel{\text{def}}{=} \text{exist-fut}$

Analogous to (39), the basic use of the future existential tense is represented by the application of the future existential operator in (42) to the present tense operator in (38a).

- (43) $[\text{r EXIST}_{\text{FUT}} [\text{r PRES}]] \rightsquigarrow \text{exist-fut}(\lambda P[P(\text{now})]) =$
 $\lambda P[\exists e[P(e) \wedge \text{now} < e \wedge$
 $\neg(\text{now} < \text{now}) \wedge$
 $\exists t'[\text{now} < t' \wedge t' \ll e \wedge \neg \exists e'[P(e') \wedge t' \circ \tau(e')]]] \wedge$
 $\diamond \exists e''[P(e'') \wedge e'' < \text{now}]]$
 $\stackrel{\text{def}}{=} \text{exist-fut[pres]}$

Finally, the representation of (12b) is obtained by applying the composite future existential tense operator in (43) to the event predicate in (40).

- (44) $[\text{trp} [\text{r EXIST}_{\text{FUT}} [\text{r PRES}]] [\text{vp Kati ki-megy a kertbe}]] \rightsquigarrow$
 $\text{exist-fut[pres]}(\lambda e[\text{kati-go-out-into-the-garden}(e)]) =$
 $\exists e[\text{kati-go-out-into-the-garden}(e) \wedge \text{now} < e \wedge$
 $\neg(\text{now} < \text{now}) \wedge$
 $\exists t'[\text{now} < t' \wedge t' \ll e \wedge$
 $\neg \exists e'[\text{kati-go-out-into-the-garden}(e') \wedge t' \circ \tau(e')]] \wedge$
 $\diamond \exists e''[\text{kati-go-out-into-the-garden}(e'') \wedge e'' < \text{now}]]$

This formula asserts that there is an event e in which Kati goes out into the garden sometime after now, now does not follow now, there is a time t' immediately preceding e and following now that does not overlap with an event e' in which Kati goes out into the garden, and it is (epistemically) possible for there to be an event e'' in which Kati goes out into the garden sometime before now.

Since it is now straightforward to derive the two less common uses of the existential tense, namely, the use of the past existential tense with a past reference time (see (21a)) and that of the future existential tense with a future reference time (see (21b)),

I will not provide these derivations. Evidently, the former involves the past tense operator *Past* (see (38b)), whereas the latter, the future tense operator *Fut* (see (38c)).

28.4.3 Consequences

Three points should be highlighted, in case they are not already apparent from the formulas in the previous section. The first is that the past existential tense's not allowing for a future reference time (22a) and the future existential tense's not allowing for a past reference time (22b) are ensured by the condition on the second line of the formulas in (37) and (42), respectively.

The second point is that the event asserted to exist cannot be a part of a larger continuous event of the same type that ends later (in the case of the past existential tense) or starts earlier (in the case of the future existential tense). Applying this to (11a), for example, if Réka has lived in Warsaw before, then she cannot still live in Warsaw now, although she may now live in Warsaw again. In other words, the past existential tense forces a discontinuity between the event asserted to exist and some time before the reference time, and the converse discontinuity holds for the future existential tense. This is guaranteed by the conditions on the third line of the formulas in (37) and (42), respectively.

Finally, the repeatability condition, relativized to the reference time, is captured by the fourth line of these formulas. In emphasizing that the repeatability condition involves epistemic possibility, I mean to say that there is nothing inherently semantically anomalous about existential tense sentences that violate it. Their anomaly stems from certain beliefs that we have about the world, for example, the impossibility of reincarnation. If we were to change these beliefs, then such sentences would become perfectly acceptable. Thus, if someone really believes that Réka could be born in Budapest again, then that person would not judge (23a) as unacceptable, precisely because the repeatability condition would be satisfied relative to his or her set of beliefs. Similarly, if someone believes that Anita could study in the GDR again, then that person would not judge (28a) as unacceptable. Since some beliefs are more plausible or easier to accommodate than others, existential tense sentences that violate the repeatability condition are predicted to vary in their intuitive acceptability, which seems indeed to be the case (e.g., (28a) is arguably more acceptable than (23a)).

Notes

This is a significantly revised version of a paper dating from 1996 and presented that and the following year at Université de Paris VII on 21 June 1996, Arbeitsgruppe Strukturelle Grammatik in Berlin on 24 July 1996, the University of Maryland on 13 Sept. 1996, the Research Institute for Linguistics in Budapest on 21 Oct. 1997, and Universität Köln on 30 Jan. 1998, and I am grateful to all of those audiences for their helpful input. I also wish to thank Cleo

Condoravdi and Anna Szabolcsi for their written comments on the original version and Cleo (again) for her additional comments on the present version. I discussed much of the data with Andrea Velich, who I thank as well. Naturally, I am solely responsible for any errors that remain. The preparation of the present version was supported by the German Science Foundation (SFB 282, *Teilprojekt D3*). Finally, I would like to thank Paul Kiparsky for his help and encouragement over the years.

The following abbreviations apply throughout the text: *PAST* = past tense; *NONPAST* = present tense; *ACC* = accusative; *INFIN* = infinitive; *PREV* = preverb; *PART* = participle.

1. In its use as a future marker, *maйд* 'then, later (on)' is practically obligatory with states (as in (2)) and activities but optional with accomplishments and achievements. (Here I use "state," "activity," "accomplishment," and "achievement" in the sense of Vendler (1967).)
2. Note that (4a)–(4c) would be acceptable if *Réka* were focused (hence strongly stressed), but then the *ADJACENCY CONDITION* would not apply (cf. (10)).
3. Again, if *Réka* were focused, then (6) would be acceptable (see also note 2).
4. The most appropriate English equivalents to *maй* 'already' and *még* 'still' in the existential tense seem to be the adverbs *before* and *still* placed in clause-final position and weakly stressed.
5. I use "reference time," "event time," and "speech time" in the sense of Reichenbach's (1947, section 51) "point of reference," "point of the event," and "point of speech," respectively.
6. The alternative terminology is due to McCawley (1971).
7. Comrie (p. 59) points out that although English generally lacks a distinct form for the experiential perfect, one place where it is overtly marked is in sentences like *Bill has been to America*. Comrie writes that "this sentence says that on at least one occasion (though possibly on more than one) Bill did in fact go to America."
8. See Kim (1998) for an interesting discussion of experiential sentences in Chinese, Japanese, and Korean.
9. Note that the verb *ír* 'write' in (29b) lacks a preverb.
10. To be fair, the term makes some sense in the system that Kálmán et al. introduce, but it is misleading because the semantics of the existential tense has arguably nothing to do with either emphasis or the continuous aspect.
11. Another discrepancy is the optional topicalization of *Kati* in (33a), which is also ignored in (33b).
12. Since events are (spatio)temporal objects, they are naturally temporally ordered with respect to times and other events. Consequently, it is not necessary to use the temporal trace function for the purpose of stating that an event temporally precedes or follows a time or another event.
13. Since times and events do not overlap mereologically (i.e., they do not share parts), the temporal trace function must be used for the purpose of asserting that a time and (the time of) an event overlap.
14. Technically, it would be possible to define a single existential tense operator, but this operator would need an additional (first) argument—the temporal precedence relation or its converse—in order to produce the past existential operator and the future existential operator, respectively. I do not define this more abstract existential tense operator here, because its linguistic significance is unclear to me.

15. To do justice to the role of *mar* 'already' and *még* 'still' would take me too far afield. If Löbner (1989) is right, then their semantic contribution is largely presuppositional, but for simplicity I am not assuming a presuppositional framework here. Löbner (p. 182) notes the compatibility of German *schon* 'already' with the experiential perfect, which is evidence for the latter's stative character (more precisely, its being a predicative perfect, which is evidence for the past existential tense to be stative in this way). For the record, I suspect that *még* 'still' in connection with the future existential tense is closer to Löbner's (section 4.1) *noch*₂ 'still' and therefore not a dual of *mar* 'already'. Löbner's main example is *Sie kommt noch* 'She'll come yet/eventually', about which he writes (pp. 199–200) that "*noch* is used to express that there is a certain development under way which (finally) leads to an event of the kind stated." Intuitively, *még* 'still' in connection with the future existential tense has this function.

V

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