

Presupposition and the syntax of negation in Hungarian

Christopher J. Piñón
Stanford University

This study analyzes and brings together two seemingly unrelated phenomena in the grammar of Hungarian.¹ The first is the meaning and the syntax of negation; the second is the meaning of the temporal connective *amíg* 'while'. Relating these two phenomena in an explicit way provides insights for the solution of a particularly puzzling problem in the syntax/semantics interface of Hungarian grammar.

The problem to be investigated, however, is of more general theoretical interest. The central issue is about how a language lacking a highly functional lexical item (in this case, the temporal connective *until*) utilizes other available resources to express this concept. The requirements of *amíg* 'while', the syntax and meaning of negation, and the expression of aspect all converge to yield a dual function for a single connective in Hungarian.

The problem can be sketched as follows. Hungarian grammarians (e.g., Lotz (1988/1939: 263)) have long observed that Hungarian has two distinct syntactic correlates of sentential negation, the one reflecting ordinary negation, and the other, 'emphatic' negation. The distinction is apparent only when the verb has a preverb (PV): in this case, the preverb obligatorily FOLLOWS its verb under ordinary negation and obligatorily PRECEDES the negation marker *nem* under 'emphatic' negation, as exemplified in (1):

- (1) a. *Nem megyek be a lakásba.*
NEG go.I PV the flat.into
'I won't go into the flat' ordinary negation
- b. *Be nem megyek a lakásba.*
PV NEG go.I the flat.into
'I WON'T go into the flat' 'emphatic' negation

Indicative of 'emphasis' in (1b) is the heavy stress which the preverb receives. The English equivalent of (1b) also employs heavy stress to this end (but on the auxiliary), thereby distinguishing the two types of negation phonologically.

If the semantic difference between (1a, b) is indeed one of 'emphasis', a characterization which is both intuitively and demonstrably correct, then it is puzzling why the 'emphatic' order should appear in another context in which no apparent 'emphasis' is at stake. This context is the *amíg*-clause:

- (2) *Addig vártam, amíg János be nem ment a lakásba.*
that.till waited.I while John PV NEG went the flat.into
'I waited until John went into the flat'

Standard Hungarian grammars (e.g., Rácz (1971: 385-386)) make it clear that the preverb should precede *nem* 'NEG' in *amíg*-clauses, though it remains very unclear why this should be so. No obvious 'emphasis' is at work here, neither intuitively nor in the form of a heavy stress on the preverb, strongly suggesting that any

postulation of *amíg*-clauses as 'emphatic' contexts would be unmotivated. Yet if there is no 'emphasis', then why the syntax of 'emphatic' negation? To get a grip on this question, the meaning of both 'emphasis' and *amíg* has to be more carefully investigated.

The paper is organized into three parts. In the first I examine the syntax and meaning of negation in Hungarian, yielding a characterization of the difference between ordinary and 'emphatic' negation. In the second I tackle the meaning of *amíg* 'while', arguing that it takes two sentences as arguments, with the added requirement that the predicate of its first argument appear in the imperfective aspect. Finally, in the third and final section I bring the results of the first two sections together to propose that broken order in Hungarian does not derive from emphasis alone, but rather has an additional source in meaning of *amíg*.

1. Syntax and meaning of negation

Hungarian has a rich set of separable preverbs: *meg* (completive marker) *be* 'in', *ki* 'out', *el* 'away', *fel* 'up', *bele* 'into', *le* 'down', etc. These combine with a great many verbs to form both semantically compositional and non-compositional units, the latter case obtaining whenever the original concrete adverbial sense of the preverb has been lost. A bare verb is one without a preverb; a complex verb is one with a preverb. The following are some examples of complex verbs:¹

- (3) *meg-néz* 'look at', *be-jön* 'come in', *be-csap* 'cheat', *ki-oszt* 'distribute', *el-megy* 'go away', *fel-mászlik* 'climb up', *bele-szeret* 'fall in love', etc.

The preverb normally appears immediately in front of its host verb, yet under definite syntactic conditions it cannot. I now review these conditions.

1.1. Preverb after the verb

The preverb is said to appear in **postverbal order** whenever it follows its host verb. This happens if a certain type of element must itself appear in immediate preverbal position. I exemplify the relevant cases in (4):

- (4) a. *János be-ment a lakásba.*
John PV-went the flat.into
normal (preverbal) order
- a'. **János ment be a lakásba.*
John NEG went PV the flat.into
sentential negation (cf. (1a))
- b. *János nem ment be a lakásba.*
John didn't go into the flat
[bad as sentential negation]
- c. *CSAK János ment be a lakásba.*
only John went PV the flat.into
csak-focus predication
- c'. **CSAK János be-ment a lakásba.*
only John went into the flat
[exhaustive listing-
focus predication]
- d. *MARI ment be a lakásba.*
'It is MARY who went into the flat'
- d'. **MARI be-ment a lakásba.*

- e. Ki ment be a lakásba?
'Who went into the flat?'
e'. *Ki be-ment a lakásba?
- Wh-questions

(4b-e) give four contexts in which the postverbal order of the preverb must be instantiated.³ These contexts reflect the generalization that the focussed constituent in Hungarian must appear in immediate preverbal position, thereby preempting the preverb from occurring there as well.⁴

1.2. The syntax of negation

As was noted in (1), Hungarian has two distinct syntactic reflexes of the semantic difference between ordinary and 'emphatic' negation. The same point is exemplified again in (5):

- (5) a. Senki *nem* öltém meg.
nobody.ACC NEG killed.I PV
'I didn't kill anyone'
b. Senki meg *nem* öltém.
'I DIDN'T kill anyone'
- ordinary negation 'emphatic' negation

The correspondence between the semantics and the syntax here is one-to-one: the postverbal order of the preverb in (5a) supports only the unemphatic interpretation, whereas the pre-*nem* order of the preverb in (5b) supports only the 'emphatic' one. Whenever *nem* 'breaks' the PV-verb order as in (5b), this I will call **broken order**. The same pattern is observed in the imperative, where the weaker prohibitory command correlates with postverbal order and the stronger one with broken order (*ne* is prohibitory NEG):

- (6) a. *Ne* menj be a lakásba!
NEG go.IMP PV the flat.into
'Don't go into the flat!'
b. Be *ne* menj a lakásba!
'DON'T (you dare) go into the flat!'
- ordinary prohibition 'emphatic' prohibition

(6) suggests that the account of negation we seek has to be general enough to include both declaratives and imperatives as particular cases.

Hungarian has a single syntactically determined focus position which is preverbal (cf. E. Kiss 1987). If the propositions expressed by sentences like (1b, 5b, 6b) are indeed 'emphatic', then potential syntactic evidence for their 'emphatic' character would be that the preverb in broken order is actually in this focus position. Yet if the preverb occupies the focus position, then no other element can occur in that position, and therefore the focus contexts illustrated in (4c-e) for postverbal order should be incompatible with 'emphatic' negation. This expectation is borne out:⁵

- (7) a. Mari be *nem* ment a lakásba.
Mary PV NEG went the flat.into
'Mary DIDN'T go into the flat'
- 'emphatic' negation

- b. *CSAK Mari be *nem* ment a lakásba.
'Only Mary DIDN'T go into the flat'
c. *MARI be *nem* ment a lakásba.
'It is MARY who DIDN'T go into the flat'
d. *KI be *nem* ment a lakásba?
'Who DIDN'T go into the flat?'
- (cf. (4c)) (cf. (4d)) (cf. (4e))

The ungrammaticality of (7b-d) is explained if the preverb is in the focus position. In exactly this case no other focussed constituent is possible.

On the other hand, there should be no compatibility problem with ordinary negation (cf. (1a, 5a, 6a)), for here the preverb surely does not occupy the focus position.⁶

- (8) a. Mari *nem* ment be a lakásba.
Mary NEG went PV the flat.into
'Mary didn't go into the flat'
b. CSAK Mari *nem* ment be a lakásba.
'Only Mary didn't go into the flat'
c. MARI *nem* ment be a lakásba.
'It was MARY who didn't go into the flat'
d. KI *nem* ment be a lakásba?
'Who didn't go into the flat?'
- ordinary negation (cf. (4c)) (cf. (4d)) (cf. (4e))

(8) verifies the expectation that the focus position is free to be filled by another constituent whenever the sentence expresses ordinary negation.

The facts in (7, 8) offer a telling syntactic argument in support of the hypothesis that the preverb occupies the focus position in sentences expressing 'emphatic' negation, whereas it does not in those expressing ordinary negation. This in turn lends credence to the idea that a significant semantic difference is at work in these two types of negation.

1.3. The meaning of emphasis

One thing to keep in mind about 'emphasis' is that it is not restricted to negation: affirmation can also be 'emphatic', though here the syntax makes no apparent distinction:

- (9) a. Mari FEL-hívtá Jánost tegnap.
Mary PV-called John.ACC yesterday
'Mary DID call up John yesterday'
b. COMPARE: Mari fel-hívtá Jánost tegnap.
'Mary called up John yesterday'
- 'emphatic' affirmation (strong stress on *fel*) ordinary affirmation

Thus, our characterization of 'emphasis' will have to be general enough to include both negation and affirmation as particular cases.

In the literature on Hungarian, Kálman *et al.* (1989: 69) provide an informal characterization of emphasis: "it's not true that not p; indeed p." The task is to tease apart this characterization, thereby rendering its components more salient. In particular, I argue that this characterization actually consists of three parts, described as follows: given ϕ as a metavariable over proposition variables (e.g., p, q), the first part is the truth-conditional meaning ϕ , the second is the context

proposition $\sim\phi$, and the third ('indeed p ') is the speaker's intention that the truth of ϕ be satisfied. I discuss each of these parts in turn.

The first claim is that an emphatic proposition shares with its corresponding unemphatic proposition its truth-conditional meaning. Thus, emphatic affirmation is derived as a particular case just when $\phi = p$, while emphatic negation results when $\phi = \sim p$. There is no reason to think that emphatic propositions are distinguished from unemphatic propositions in their truth-conditional content.

Unlike an ordinary proposition, however, an emphatic proposition requires support from a context proposition, here represented as $\sim\phi$. I accept Horn's (1989: 73; p.c.) view that the notion 'pragmatic presupposition' (a.k.a. 'conventional implicature') is too strong to accurately characterize the sort of proposition involved. For example, it is not the case that the speaker, in uttering a sentence expressing an emphatic proposition $\sim p$, actually accepts or believes in the truth of p (she cannot, for she rejects it with $\sim p$). Nor need the speaker take it for granted that the hearer actually agrees to the truth of p . Rather, the appropriate notion seems to be that of 'context proposition', introduced for independent reasons in Fillmore *et al.* 1988. A context proposition is a previously posed proposition which is part of either the spoken or unspoken, pragmatically given and shared context and a proposition which the speaker can either explicitly accept or reject in the course of the discourse (cf. Fillmore *et al.* (1988: 513-514, 532)). The use of emphasis invariably conveys a rejection of a particular context proposition.

The third and final component of emphasis involves the speaker's intention that the truth of the emphatic proposition hold. This component is not constitutive of ordinary negation. One way of elaborating this claim is to say that the speaker, in uttering a sentence expressing an emphatic proposition, intends for the converted condition (cf. Katz (1977: 120-122)) of the proposition to be satisfied. Every illocutionary type of a proposition has a certain 'converted condition'—really an abstraction covering particular conditions—which determines how the illocutionary type in question is to be 'successful'. For example, a truth condition tells us what must hold in order for an assertive to be true, a compliance condition tells us what actions count as complying with a requestive, a fulfillment condition tells us what counts as fulfilling a promissory, etc. Every proposition has a converted condition; emphatic propositions require, in addition, that the speaker intend for the converted condition to be satisfied.

I sum up my characterization of emphasis before adducing arguments in favor of it:

(10) The meaning of emphasis

Truth-conditional meaning: ϕ

Context proposition: $\sim\phi$

Speaker intention: Speaker intends for the converted condition of the illocutionary type of ϕ to be satisfied.

The two components of (10) that need some argument are the 'context proposition' and the 'speaker intention' parts.

First, it can be shown that the discourse context is sensitive to the context proposition p of emphatic negation, whereas ordinary negation does not require any such context proposition:

- (11) a. A: Hallottam, hogy nem utazol el holnap.
heard.I COMP NEG travel.you PV tomorrow
I heard that you are not leaving tomorrow.
B: Igen, nem utazol el.
Yes NEG travel.I PV
Yes, I'm not leaving.
b. A: Hallottam, hogy nem utazol el holnap.
heard.I COMP NEG travel.you PV tomorrow
I heard that you are not leaving tomorrow.
B: #Igen, el nem utazol.
Yes PV NEG travel.I
#Yes, I WON'T leave.
emphatic negation

The contrast between (11a) and (11b) is one of discourse coherence. B's reply in (11a) is perfectly natural—she simply reaffirms what A already assumes or has reason to believe. Ordinary negation is therefore perfectly felicitous here. In comparison, B's reply in (11b) is at best bizarre, if not simply incoherent in the given context. The analysis in (10) sheds light on this incoherence in that B's emphatic reply $\sim p$ (*her not leaving*) would require the context proposition p (*her leaving*) in order to be felicitous. But the given context does not support p , for A assumes or at least has good reason to think that $\sim p$, as is clear from her statement. This difference between (11a) and (11b), then, constitutes an argument in favor of the context proposition requirement for emphasis.

A second argument in support of a meaning difference between ordinary and emphatic negation derives from the following contrast:

- (12) a. Vagy ki-megyek, vagy nem megyek ki.
or PV-go.I or NEG go.I PV
'Either I go out or I don't go out.'
b. *Vagy ki-megyek, vagy ki nem megyek.
'Either I go out or I WON'T go out'

(12a) is a tautology—it is necessarily true. In contrast, (12b) is neither tautological nor felicitous. Although the exact reason for the infelicity and bizarre nature of (12b) is not obvious, I suspect that explicitly mentioning the context proposition as a distinct possibility in the first disjunct and then emphatically negating it in the second disjunct leads in part to the bizarre reading, for the context proposition in emphasis usually does not stem from the speaker herself. Rather, it is typically a contextually available proposition which the speaker makes implicit reference to.

The bizarreness of (12b) probably also derives from the third component of (10)—from the fact that the speaker intends for the truth conditions of the second disjunct of (12b) (*her not going out*) to be satisfied. If such is the speaker's intention, then again it is puzzling why she should mention the first disjunct (*her going out*) as a distinct possibility. Whatever the exact explanation for (12b), the fundamental point is that the ordinary negation in (12a) is subject to neither the context proposition nor the speaker intention requirement, and hence (12a) is perfectly felicitous.⁷

Third and finally, there is an interesting restriction on emphatic negation that is explained by the speaker intention requirement. The restriction is that propositions expressing emphatic negation cannot be used as yes/no questions:

- (13) a. *Ma ki-mész?*
 today PV-go.you
 'Are you going out today?'
 ordinary negation
 b. *Ma nem mész ki?*
 'Are you not going out today?'
 c. **Ma ki nem mész?*
 'WON'T you go out today?'
 emphatic negation

Questions of the sort in (13c) are systematically ruled out, whereas those with ordinary negation are perfectly good. I suggest that this is due to an incompatibility between the meaning of emphasis and the pragmatics of questions. By (10) the speaker, in uttering (13c), must intend for the truth conditions of the negated proposition to be satisfied. Yet having this intention is incompatible with her asking whether she has that intention, and so (13c) is infelicitous.

Note, incidentally, that in statements the speaker and the subject of the clause need not be identified:

- (14) *Ma ki nem mész.*
 'You WON'T go out today'
 emphatic negation

Independent of the intentions of the hearer, in uttering such a sentence the speaker clearly intends for the hearer's not going out to hold for the period of today.

I believe that the previous three arguments constitute firm grounds for accepting the essential correctness of (10) as the meaning of emphasis in Hungarian (and presumably more generally as well). Since emphatic negation has the syntactic correlate of broken order, a reasonable guess would be that broken order is possible in any syntactic context compatible with the meaning of emphasis. Consider the following subordinate contexts in this light:

- (15) a. *Ha nem fejezed be a munkát,* ...
 if NEG finish.you PV the work.ACC
 ... nem fizetek semmit.
 NEG pay.I nothing.ACC
 'If you don't finish the work, I'm not paying anything'
 b. **Miután Mari nem érkezett meg,* ki-mentem meg-keresni.
 after Mary NEG arrived PV PV-went.I PV-look-for.INF
 'After Mary didn't arrive, I went out to look for her'
 c. **Miután Mari meg nem érkezett,* ki-mentem meg-keresni.
 emphatic

It is straightforward to see that the meanings of both *if*- and *after*-clauses are incompatible with meaning of emphatic negation as given in (10). The conditional in a sentence like (15a) expresses (but does not assert) a future possibility (one among others), and hence by its very nature cannot deny any context proposition or express the speaker's intention that the truth conditions of the said proposition be satisfied. Analogously, the proposition expressed by the *after*-clause in (15b) is semantically presupposed, and so clearly it cannot be used at the same time to deny a context proposition or to express the speaker's intention that its truth hold.

Not all subordinate contexts, however, are incompatible with the meaning of emphasis:

- (16) a. *Ki-jelentetem,* hogy nem megyek ki a szobából.
 PV-declare.I COMP NEG go.I PV the room.out-of
 'I declared that I wasn't going out of the room'
 b. *Ki-jelentetem,* hogy ki nem megyek a szobából.
 'I declared that I WOULD'N'T go out of the room'
 emphatic

In (16b) there is no semantic incompatibility between emphasis and the propositional argument of *declare*. Both the context proposition and the speaker intention requirements for emphasis are maintained in this embedded context. Thus, broken order is not ruled out altogether in subordinate clauses.

Nonetheless, there is one subordinate context in which the appearance of broken order is puzzling. We now examine this context.

2. Syntax and meaning of *amíg* 'while'

As was stated at the outset of this paper, an unsolved problem in Hungarian grammar is that the syntax of emphatic negation shows up in a subordinate context where no apparent emphasis is at stake. This is the *amíg*-clause.⁹

- (17) a. *(Addig) olvastam,* amíg János le nem fektült.
 that.till read(PST).I while John PV NEG lay
 'I read until John lay down to sleep'
 b. *(Addig) beszélgettünk,* amíg Mari fel nem hívott.
 that.till talked.we while Mary PV NEG called
 'We talked until Mary called us up'

Sentences like (17a, b) are perfectly good and the propositions expressed by the subordinate clauses neither deny any apparent context proposition nor implicate the speaker's intention with respect to John's lying down or Mary's calling up, respectively. They simply describe a temporal relation between two eventualities. Hungarian grammars (e.g., Rácz 1971: 385-386) stipulate that the broken order PV-NEG-V is required in such clauses, leaving us to wonder why the much more usual postverbal order NEG-V-PV should be ruled out.

2.1. Temporality

One thing to notice about (2, 17a, b) is that although the English renderings employ the temporal connective *until*, the Hungarian sentences do not. In fact, Hungarian lacks the (linguistic) equivalent of the temporal connective *until*, employing *amíg* 'while' instead for this purpose. (*addig* in (17) is an optional case-inflected determiner: *az* 'that' + *-ig* 'till'; it anticipates the *amíg*-type of subordinate clause.) (18) gives the more literal though nevertheless still grammatical English renderings of (17):

- (18) a. 'I read while John was not lying down to sleep'
 b. 'We talked while Mary was not calling us up'

(18a, b) are odd for the very reason that there is a more direct and parsimonious way in English of expressing their meanings, namely with the connective *until*.

Such utterances would therefore constitute Gricean manner violations. In contrast, (2, 17a, b) are completely natural in Hungarian, for the absence of the equivalent of the temporal connective *until* excludes the possibility of there being a more direct way of expressing the intended sense.

We might ask whether postverbal order is even possible in *amiġ*-clauses: Hungarian grammars (e.g., Rácz 1971), by stipulating broken order in this construction and not even mentioning the possibility of postverbal order, would have us believe that postverbal order should be bad in this context. Yet this is not quite so, though there is a subtle difference in meaning (cf. (17a, b)):

- (19) a. (Addiġ) olvastam, amiġ János nem fektült le.
that till read(PST).I while John NEG lay PV
'I read while John was not lying down to sleep [i.e., while he was still up]'
- b. (Addiġ) beszélgetünk, amiġ Mari nem hívott fel.
that till talked we while Mary NEG called PV
'We talked while Mary was not calling us up [though we expected her to call at any moment]'

The basic idea about the precise difference between (17) and (19) is this: the *amiġ*-clause in (17a, b) focuses on the endpoint of the interval denoted by the predicate in the main clause, i.e., the endpoint is when John lies down to sleep. Mary calls us up, respectively, whereas the same clause in (19a, b) describes another interval (John's not lying down, Mary's not calling us up, respectively) which is contemporaneous with the interval denoted by the predicate in the main clause. In other words, broken order in the *amiġ*-clause yields the reading best rendered by *until*, whereas postverbal order results in the reading best rendered by *while*.

Evidence that this is a real distinction comes from the interaction with quantifiers. The syntactic difference between (17) and (19) indeed correlates with a semantic difference:

- (20) a. *Addiġ vāram, amiġ senki le nem fektült.
that till waited.I while nobody PV NEG lay
'I waited until nobody lay down to sleep'
- a'. Addiġ vāram, amiġ senki nem fektült le.
'I waited while nobody was lying down to sleep [i.e., while everyone was still up]'
- b. Addiġ vāram, amiġ mindenki le nem fektült.
that till waited.I while everyone PV NEG lay
'I waited until everyone lay down to sleep'
- b'. Addiġ vāram, amiġ mindenki nem fektült le.¹⁰
'I waited while everyone was not lying down to sleep'

Why the contrast between (20a) and (20a')? If, as I have informally suggested, *amiġ* + PV-NEG-V really denotes an endpoint for the interval denoted by the predicate in the main clause, then the description of this endpoint must be informative enough to enable us to pick out the relevant endpoint. The difficulty in (20a), then, is that the description of nobody lying down to sleep is not sufficient to pick out such an endpoint. The waiting interval ends when nobody lies down to

sleep, yet there are too many points compatible with this description: we cannot determine which point is the relevant one. The description in (20a') gets around this difficulty precisely because the postverbal order in the *amiġ*-clause describes an interval—not a point—contemporaneous with the one described by the main clause. Unlike the point description, the interval description is informative enough to enable us to pick it out.

(20b, b') pose no special problem; they are included because they strongly contrast with each other in regard to their meanings. (20b) describes an interval of waiting bounded by the endpoint of everyone lying down to sleep. (20b'), on the other hand, describes an interval of waiting contemporaneous with the interval of everyone not lying down to sleep. The universal quantifier makes these readings more salient than with referring NPs.

Thus far, I have established that *amiġ*-clauses allow the syntax of both emphatic and ordinary negation, though the former pattern is by all means the most prevalent. These two syntactic patterns differ semantically in a way analogous to the meaning of *until*-clauses and *while*-clauses, respectively. I informally characterized this difference as one between supplying an endpoint for the interval denoted by the predicate in the main clause and describing an interval contemporaneous with that interval, respectively. This characterization, however, remains to be sharpened.¹¹

2.2. The syntax of negation in *amiġ*-clauses

In this section I show that the two syntactic patterns of negation found in *amiġ*-clauses are really the same two patterns exemplified earlier in main clauses.

Consider (21a), a sentence with the syntactic pattern *amiġ* + PV-NEG-V. As before, we expect that the preverb should occupy the focus position (cf. (7)) and indeed the focus tests (cf. (4c-e)) indicate that it does:

- (21) a. Olvastam, amiġ Mari fel nem hívott.
read(PST).I while Mary PV NEG called
'I read until Mary called me up'
- b. *Olvastam, amiġ CSAK Mari fel nem hívott.
'I read until only Mary called me up' (cf. (4c, 7b))
- c. *Olvastam, amiġ MARI fel nem hívott.
'I read until it was MARY who called me up' (cf. (4d, 7c))
- d. Hearer's reply to (21a), which was not completely heard:
*Amiġ KI fel nem hívott??
'Until WHO called me up??' (cf. (4e, 7d))

The ill-formedness of (21b-d) is completely expected if the preverb in broken order occupies the focus position. Such data demonstrate that exactly the same syntactic structure is under investigation in both main clauses and *amiġ*-clauses.

On the other hand, we do not expect a conflict to arise in the case of ordinary negation, for here the preverb appears in postverbal order and hence is clearly not in the focus position. Again, this expectation is borne out (cf. (8b-d)):

- (22) a. Olvastam, amiġ Mari nem fektült le.
read(PST).I while Mary NEG lay PV
'I read while Mary was not laying down to sleep'

- b. ?Olvastam, amíg CSAK Mari *nem* fektült le.
 'I read while only Mary was not laying down to sleep'
 c. Olvastam, amíg MARI *nem* fektült le.
 'I read while it was MARY who was not laying down to sleep'
 d. Hearer's reply to (22a), which was not completely heard:
 Amíg KI *nem* fektült le?
 'While WHO was not going out?'

The fact that (22b-d) are syntactically well-formed, even if difficult to contextualize pragmatically, further support my claim that the usual syntax of ordinary negation is at work here.

Henceforth I take it as established that both ordinary and emphatic negation exhibit the same syntax both in main clauses and in *amíg*-clauses.

2.3. The meaning of *amíg* 'while'

I now turn to a closer examination of the meaning of *amíg* 'while' in Hungarian. This is necessary if we are to gain some understanding of why the syntax of emphatic negation occurs so overwhelmingly in this context.

The first thing to observe is that the truth-conditional meaning of *amíg* 'while' has nothing to do with negation:

- (23) Amíg János jött fel a lépcsőn, (addig) olvastam,
 while John came PV the stairs-on that.till read(PST).I
 'While John was coming up the stairs, I was reading,
 de azt hallottam, ki-néztem az ajtón, és láttam,
 but noise.ACC heard.I PV-looked.I the door-on and saw.I
 but (then) I heard a noise, I looked out the door and saw
 hogy el-ajult, mielőtt fel tudt volna jönni.
 COMP PV-fainted before PV could.he would come
 that he had fainted before being able to reach the top'

The first clause of (23)—the *amíg*-clause—contains no negation marker, even though the preverb appears in postverbal order. Postverbal order of the preverb with an empty focus position is the means of expressing imperfective aspect in Hungarian (cf. E. Kiss (1987: 69-76)). The point is that (23) shows that *amíg* is able to take an accomplishment predicate (*coming up*) in imperfective aspect as its first clausal argument. No negation of any sort is required.

Second, while an event predicate in imperfective aspect (postverbal order) is compatible with the requirements of *amíg*, an event predicate in perfective aspect (i.e., preverbal order) yields bad results:

- (24) a. Boldog voltam, amíg Mari a feleségem volt.
 happy was.I while Mary was the wife.my was
 'I was happy while Mary was my wife' [state, *amíg* state]
 b. *Boldog voltam, amíg Mari ki-nézett az ablakon.
 happy was.I while Mary PV-looked the window-on
 'I was happy while Mary looked out the window' [state, *amíg* event]

Although the English translation of (24b) is perfectly good, it is ruled out in Hungarian. This is because *amíg* requires an event denoting predicate to appear in imperfective aspect, which is effected by postverbal order of the preverb. This difference between English and Hungarian may be due to the fact that the simple past in English is ambiguous or unmarked for aspect.

Yet if preverbal order expresses perfective aspect, what does broken order with *nem* (cf. (2)) express? I follow Link (1987: 4) in hypothesizing that a negated event predicate does no longer an event but rather a negative type of state. If this is correct, then there is no difficulty, for *amíg* combines unproblematically with state denoting predicates.

Third, assuming the standard definition of semantic presupposition given in (25a), it is evident that the eventuality denoted by the *amíg*-clause is semantically presupposed:

- (25) a. A semantically presupposes B if A \models B and \sim A $\not\models$ B
 (\models = 'entails'; McCawley (1981: 236))
 b. Beszélgettünk, amíg Mari fel *nem* hívott.
 talked.we while Mary PV NEG called
 'We talked until Mary called us up' (repeated from (17b))
 c. Nem beszélgettünk, amíg Mari fel *nem* hívott.
 'We didn't talk until Mary called us up'

In (25b, c) what is presupposed is the (negative) state of Mary's not calling us up. The same is presupposed when *nem* occurs with the preverb in postverbal order (cf. (19b)).

Fourth and finally, *amíg* carries a conventional implicature which states that there is an interval immediately following the interval denoted by the *amíg*-clause over which the proposition of the *amíg*-clause is not true. That is to say, if ϕ is the proposition expressed by the *amíg*-clause and if ϕ is true at the interval t , then there is an interval t' immediately following t at which $\sim\phi$ is true:

- (26) a. *Beszélgettünk, amíg Mari soha fel *nem* hívott.
 talked.we while Mary never PV NEG called
 'We talked until Mary never called us up'
 b. *Beszélgettünk, amíg Mari fel *nem* hívott, de végül
 talked.we while Mary PV NEG called but end.as
nem hívott fel.
 NEG called PV
 'We talked until Mary called us up, but in the end she didn't call us up'

(26a, b) are bad because the possibility of such an interval following is explicitly refuted. This, then, is incompatible with the conventional implicature of *amíg*.

The considerations presented thus far serve to motivate the following proposal as the interpretation of *amíg*:

- (27) *amíg* (while) denotes a set of pairs of eventualities $\langle e_1, e_2 \rangle$, such that if e_1 is an event (in the narrow sense), its event predicate must be in imperfective aspect, and:
 a. $\exists t_1$, which is a new reference point, in the sense that it is not a member of the set of previously introduced reference times;
 b. e_1 (subordinate), is interpreted with respect to t_1 ;

- c. $\exists t_2$, which is also a new reference point with respect to the set of previously introduced reference times;
- d. e_2 (main) is interpreted with respect to t_2 ;
- e. $t_1 = t_2$;
- f. Semantically presupposes: e_1 holds at interval t_1 ;
- g. Conventionally implicates: if $[e_1$ holds at interval t_1 is true, then for the interval t_2 immediately following t_1 , $[e_1$ holds at interval t_2] is false; if e_2 is an event (in the narrow sense) and $[e_2$ holds before interval t_2] is true, then $[e_2$ holds at interval t_2] is false.¹²

Armed with the interpretation of *amíg* given in (27), we are now ready to conclude with an explicit proposal regarding the interaction of the syntax of negation with *amíg*-clauses.

3. Conclusion: relating negation to temporality

Recall that we need to explain not only the possibility and prevalence of broken order in *amíg*-clauses (cf. (2) and elsewhere), but also how the *until*-reading correlates with broken order and the *while*-reading with postverbal order (cf. (20)). I believe that all this reduces to the meaning of *amíg* (cf. (27)), the expression of aspect in Hungarian, and the fact that Hungarian lacks the equivalent of the English temporal connective *until*. That is, emphasis is only one source for broken order.

Consider the following examples once again, repeated from (17a) and (19a), respectively.

- (28) a. (Addig) olvastam, amíg János le nem fektült.
that.till read(PST).I while John PV NEG lay
'I read until John lay down to sleep'
b. (Addig) olvastam, amíg János nem fektült le.
that.till read(PST).I while John NEG lay PV
'I read while John was not lying down to sleep'

Why does broken order in (28a) correlate with the *until*-reading and postverbal order in (28b) with the *while*-reading?

Let us begin with (28a). Suppose the verb *lefektült* were to appear without the intervening negation marker *nem*. This would be ruled out by the requirement of *amíg* that event denoting predicate appear in imperfective aspect (cf. (27)), i.e., in postverbal order. The preverbal order of *lefektült* expresses perfective aspect, hence it is incompatible. Negating the event, however, results in a negative type of state, by hypothesis. By (27f) this eventuality is presupposed to hold at a given interval t_1 , and by (27g) there is an immediately following interval t_2 at which this eventuality does not hold. In other words the negative state denoted by *le nem fektült* is true at t_1 but is false at t_2 . But if the state denoted by *le nem fektült* is false at t_2 , this means that the event denoted *lefektült* (its negation) is true at t_2 . Yet it is exactly this event reading which is so robust with broken order, yielding the effect of an *until*-reading.

Turning to (28b), we now ask about the postverbal order. Since postverbal order can express imperfective aspect, the negation marker is not present out of any incompatibility between the verbal predicate the requirements of *amíg*. Its presence

is thus optional, though of course including it will change the interpretation of the predicate. Suppose that we include it; then the negated predicate *nem fektült le* similarly denotes a negative type of state (by hypothesis). By (27f) this (negative) state holds at the interval t_1 ; thereafter, by (27g), it does not hold at t_2 . Of course, this means that the negation of this negative state holds at t_2 , namely the event denoted by *fektült le*. But this an event expressed in imperfective aspect, i.e., this is the presumed source of the *while*-reading in (28b).

We see, then, that the semantics of emphasis really plays no role in this construction. Broken order is driven by the requirements of *amíg* and the expression of aspect in Hungarian. The fact that other subordinate contexts do not allow broken order (cf. (15)) follows from the crucial difference that these connectives can take an event denoting predicate in perfective aspect as their first argument. Broken order is an added option made available by the language, utilized for both the expression of emphasis and (together with *amíg*) the expression of what the purely temporal connective *until* really means, a connective that Hungarian lacks.

Endnotes

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¹I follow the practice of Hartig 1989 in using a center dot (·) to separate the preverb from its host verb, though standard Hungarian orthography would write them together.

²When the preverb appears in postverbal order, it behaves as an independent complement and does not form a minimal constituent with the verb (cf. E. Kiss (1987: 65-66)).

³Comparing (4b) with (1b) it is evident that *nem* does not obligatorily induce postverbal order on the preverb. In particular, the preverb appears immediately before *nem* in 'emphatic' negation only. It is in this respect that (4b) differs from (4c-e), for the latter constructions all force postverbal order on the preverb.

⁴See Farkas 1986, Horváth 1986, and E. Kiss 1987 for three different analyses of the syntax of focus in Hungarian. For present purposes, any of these analyses could be rendered compatible, so I have no need to choose between them.

⁵Here I restrict myself to 'emphatic' negation in declaratives, though the same point could be made in principle for imperatives.

⁶Note that if the preverb in (1b, 5b, 6b, 7a) occupies the focus position, as we are arguing, then *nem* cannot itself be in this position. For present purposes it is sufficient to assume that *nem* adjoins to the bare verb, in a proclitic-like fashion. The resulting structure would be [*nem* [V^0] v^0], which would still allow a preverbal focussed constituent.

⁷The contrast in (12) is not an isolated example. (i) exhibits another instance where emphatic negation is bad:

- i. a. Nem jelenkezem ki, és ezáltal jogilag nem költözöm ki.
NEG notify.I PV and thereby legally NEG move.I PV

- 'I'm not giving notice and by so doing I'm not moving out legally'
 b. *Nem jelentkezem ki, és ezáltal jogilag ki nem költözöm.
 'I'm not giving notice and by so doing I WON'T move out legally'

Again, while the exact source of trouble is hard to pin down, a couple of considerations come to mind. (i) sets up a causal relation between not giving notice and not moving out legally, independent of anyone's intention. If the use of emphasis in the second conjunct of (ib) invokes the speaker's intention with respect to not moving out legally, it is unclear how this intention fits into the causal relation stated. The second consideration is that *jogilag* in (ib) is not within the scope of negation: in (ia) I'm moving out, but just not legally, whereas in (ib) I don't intend to move out at all. But then the causal relation between my not giving notice and my intention legally not to move out becomes all the more opaque.

⁸⁷This has an irrelevant echo-question reading.

⁹⁰To allay any potential confusion, I point out that in addition to the purely temporal *amíg* 'while' there is another form *míg* in Hungarian which I do not treat here. The confusion can stem from the fact that *amíg* has the morphological variant *míg*. The meaning of the other *míg* might be characterized as 'consequential until'. Rácz (1971: 386) gives the following minimal pair:

- i. a. Adding *dolgozot, (a)míg meg nem izzadt.*
 that.till worked.he while PV NEG sweat(PST).he
 'He worked until he sweat' [sweating not a necessary consequence of working]
 b. Adding *dolgozot, míg meg-izzadt.*
 that.till worked.he until PV-sweat(PST).he
 'He worked until he sweat' [sweating a necessary consequence of working]

míg in (ib) is not a purely temporal connective, for it also expresses a causal relation between two eventualities, one which is not necessary to interpret *amíg* in (ia). Because of the consequential relation it expresses, *míg* cannot translate English *until* in the latter's purely temporal sense. In this paper I restrict myself to the purely temporal connective *amíg*, consequential *míg* being another connective with other properties.

¹⁰Some speakers reject this sentence as ungrammatical, while others do not. I believe that it is fully grammatical, though rare and difficult to contextualize. The present theory predicts there to be a salient meaning difference between this sentence and (20b) which is unquestionably common and good. It is the contrast between the two which I emphasize.

¹¹Further evidence for the proposed distinction comes from the following contrast:

- i. a. ?Olvasiam, amíg János le nem fektött kilenc órákor.
 read(PST).I while John PV NEG lay nine hour.at
 'I read until John lay down to sleep at 9 o'clock'
 b. *Olvasiam, amíg János nem fektött le kilenc órákor.
 read(PST).I while John NEG lay PV nine hour.at
 'I read while John was not lying down to sleep at 9 o'clock'

The broken order in (ia) is in principle compatible with the adverbial specification of a temporal point precisely because the *amíg*-clause expresses an endpoint in this case, whereas the interval reading in (ib) is incompatible with such an adverbial.

¹²In (27) I follow the essence of de Swart's (1990) proposal for a dyadic analysis of temporal connectives, though she herself does not analyze *while*. She does, however, argue for an interpretation of *when* which differs in three crucial respects from the one I have provided for *while*: (i) *when* does not necessarily identify the two references times t_1 and t_2 (*John arrived when I left*), (ii) *when* (in neither Hungarian nor English) requires an event predicate in its first argument to be in imperfective aspect, and (iii) *when* does not carry the conventional implicature in (27g). The latter is necessary to ensure that if the proposition in the main clause denotes an event, then its temporal endpoint is matched with the temporal endpoint of the eventuality denoted in the subordinate clause, e.g., *I read the newspaper while Mary slept* (my reading ends with Mary's awakening). This requirement does not appear to hold so strongly if e_2 is a state or process: imagine that I am a Communist and compare *I lived in Hungary while the Communists were in power* with *I lived in Hungary when the Communists were in power*. Only the former utterance strongly implicates that I left Hungary after the Communists lost their power, though I think one could defeat this implicature explicitly: *I lived in Hungary while the Communists were in power, and yet I didn't even leave after they lost their power*. Defeating the implicature with the newspaper example is not so feasible, hence the restriction to events (in the narrow sense) in the conventional implicature given in (27g).

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DERIVING NEGATIVE AND FACTIVE ISLANDS WITHOUT THE ECP*

Johan Rooryck
Indiana University

1. Introduction.

Several restrictions on successive cyclic *Wh*-movement appear not to be exclusively linked to general principles of the grammar, but seem to be in some sense lexically determined. It has been pointed out repeatedly that *Wh*-movement of subjects and adjuncts strongly contrasts with *Wh*-movement of internal arguments out of complement CPs of factive verbs (Rouveret 1980, Kayne 1981, Zubizarreta 1982, Adams 1985):

- (1) a. * *Who do you regret/understand/forget likes this article?*
b. * *How did he deeply enjoy/ regret that his son had fixed the car?*
c. ? *Which article did you regret/understand that I had selected?*
- This type of restriction is not displayed by nonfactive verbs such as *believe*:
- (2) a. *Who do you believe likes this book?* (=Adams 1985:(4a))
b. *How do you believe that I selected the article?*
c. *Which article did you believe that I selected?*

However, *Wh*-movement of the adjunct in (2b) is blocked by an intervening negation (Ross 1984, Travis 1984, Kayne 1986:fn.17, Rizzi 1990a:15):

- (3) a. (?) *Who don't you believe would like this book?*
b. * *How don't you believe that I selected the article?*
c. (?) *Which article didn't you believe that I selected?*

The negative islands in (3) present a case of adjunct vs. argument asymmetry and the factive islands in (1) present cases of a subject/ adjunct vs. object asymmetry with respect to *Wh*-movement. In the framework of Chomsky (1986), this type of asymmetry is usually linked to the ECP: traces of subjects and adjuncts must be antecedent governed by intermediate traces, whereas traces of object arguments are properly governed by the selecting verb. At first sight, these data suggest that the intermediate trace in Spec, CP position in (1a-b-3b) is not antecedent governed by the successive cyclically moved *Wh*-phrase. Obviously, this type of solution will not suffice in light of the difference between the asymmetries in both types of islands.

With respect to negative islands in (3b), Rizzi (1990a) argues that the negation in the matrix clause is a potential antecedent governor for the trace in the embedded Spec, CP. The *Wh*-phrase in the higher Spec, CP will be unable to antecedent-govern its intermediate trace in the embedded Spec, CP position, thus violating the ECP. The problem with this analysis is that there are a set of counterexamples where negation does not seem to intervene to create opacity effects. Meis (1988) observes that the asymmetry noted in (3) does not extend to identical constructions with volitional verbs in French such as *vouloir*.

- (4) a. *Qui ne veut/ désire- tu pas qui vienne encore chez nous?*
Who don't you want (that) still comes to see us?
b. *Voilà la façon de laquelle je ne désire pas qu'il répare la voiture*
This is the way in which I don't want that he fixes the car
c. *Voilà les moments auxquels je ne désire pas qu'on me dérange*

These are the times during which I don't want that anyone bothers me.
Recall *want* type verbs are not ECM verbs in French as they are in English. Against the predictions of relativized minimality, the matrix negation does not seem to function as a potential governor for the trace in the embedded Spec, CP in (4) and