Why *almost* and *almost* are not even approximately the same: The diachronic semantics of approximatives in Hungarian¹

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In my paper, I will explore the diachronic semantics of two almost-approximators in Hungarian: majdnem ('almost-M') and szinte ('almost-S'). I will show that there is a neat division of labour between these two: majdnem is an intensional approximator (possible worlds, cf. Sadock 1981, Nouwen 2006 a.o) whereas szinte is a scalar approximator (precision standards, cf. Penka 2005, Sauerland & Stateva 2007, Amaral & del Prete 2010, Greenberg & Ronen 2013 a.o.), a situation similar to that observed in Russian (čut' ne and počti, cf. Kagan and Wolf 2015). I will show that this can be straightforwardly derived from the grammaticalization trajectories of the two approximators: majdnem derives from the adverb majd 'soon' (and the expletive negator nem 'no') and szinte derives from an adverb originally meaning 'by out-ward appearance, superficially'. These two processes both exhibit semantic bleaching and the semanticization of originally pragmatically inferred information (Eckardt 2006). With the help of corpus data, I will also track and explain in terms of competing grammars (Niyogi 2002) how, in certain environments, majdnem is in the process of crowding szinte out.

1. Introduction

In this paper, I will explore the diachronic formal semantics of two *almost*-approximators in Hungarian: *majdnem* ('almost-M') and *szinte* ('almost-S'). From a synchronic perspective, I will show that there is a neat division of labour between these two: *majdnem* is an intensional approximator (possible worlds, cf. Sadock 1981, Nouwen 2006 a.o) whereas *szinte* is a scalar approximator (scales of varying granularity or a contextually given precision standard, cf. Penka 2005, Sauerland & Stateva 2007, Amaral & del Prete 2010, Greenberg & Ronen 2013 a.o.), a situation similar to that observed in Russian (*čuť ne* and *počti*, cf. Kagan and Wolf 2015). These findings lend further support to the dualistic view of approximators.

From a diachronic perspective, I will show that this can be straightforwardly derived from the grammaticalization trajectories of the two approximators: *majdnem* derives from the adverb *majd* 'soon' (and the expletive negator *nem* 'no') and *szinte* derives from an adverb originally meaning 'by outward appearance, superficially' (Simonyi 1881, Simonyi 1888). These two processes both exhibit semantic bleaching and the semanticization of originally pragmatically inferred information (Eckardt 2006). With the help of corpus data, I will also track and explain in terms of competing grammars (Niyogi 2002) how, in certain environments, *majdnem* is in the process of crowding *szinte* out.

2. Data

Hungarian has two words which are usually rendered as *almost* in English: *majdnem* and *szinte*. These have typically been regarded as stylistic alternatives (with *szinte* considered the more refined alternative), how-

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ever, a closer look at various environments reveals a more complex picture. In some environments, the two approximators can be used interchangeably. The figures below denote attestations in the Hungarian National Corpus (Váradi, Oravecz & Sass 2014):

Both (1a) and (1b) are completely felicitous and they have identical truth conditions. The figures in parentheses denote the number of attestations of the relevant structures (majdnem egyidősek and szinte egyidősek 'almost the same age'). In other environments, however, a striking pattern emerges:

(2)	a.	Majdnem	első	lettem	a	futóversenyen.	(HNC=21)
		almost-M	first	became:1	SG the	running.competition:on	
	b.	#Szinte	első	lettem	а	futóversenyen.	$(HNC=0)^2$
		almost-S	first	became:1sG the		running.competition:on	
		'I almost came first in the running competition.'					

While (2a) is perfectly natural, (2b) is strongly marked: although it is grammatical in terms of syntax, it is semantically anomalous. If uttered, (2b) would probably be met with a rejoinder along the lines: Well, you cannot be almost the first, you are either first or not first, there is no in-between.'

A similar contrast can be observed below:

(3b) is anomalous as priesthood is typically conceived of as a binary condition: one is either a priest or not, there are no grades in between.4

The inverse pattern is observable in (4) below:

(4)#Amozaikok majdnem véletlenül kerültek Ravennába. a. (HNC=6)mosaics almost-M by.accident Ravenna:into the got mozaikok véletlenül kerültek Ravennába. b. A szinte (HNC=136)mosaics almost-S by accident got Ravenna:into the 'The mosaics ended up in Ravenna almost by accident.'

(4a) can only receive a felicitous reading in the rather absurd scenario where there was a devious plan to get the mosaics to Ravenna in an accidental manner, but in the end, this plan failed, and the mosaics got to Ravenna in a non-accidental manner. Such a scenario is difficult to reconcile with our world knowledge and this makes (4a) infelicitous (or at least strongly marked). A similar contrast can be observed below:

Includes: első 'first', bajnok 'champion', aranyérmes, 'gold medallist', dobogós 'one who earned the right to stand on the podium reserved for the first three', listavezető 'first in the list of contenders', pápa 'pope', elnök 'president', király 'king', miniszterelnök 'prime minister'

Includes: szerzetes 'monk', apáca 'nun', katona 'soldier'

Theologically and liturgically speaking, there do in fact exist stages of priesthood: lector, acolyte, deacon, priest and bishop. However, in everyday parlance, only the latter two are regarded as priests.

(5) a. #Majdnem testvérek vagyunk. (HNC=2)
almost.M siblings be-1PL
b. Szinte testvérek vagyunk. (HNC=27)
almost-S siblings be-1PL
'We are almost brothers.'

(5b) is felicitous on the reading 'We are as close to each other as siblings typically are.' With (5a), this reading is not accessible and the sentence is infelicitous. (More precisely, it would only be felicitous under an unlikely and convoluted scenario where we somehow almost ended up as brothers but did not in the end.) A similar pattern is shown below:

#10 év alatt majdnem soha nem láttam főnököt. (HNC=10)(6)a. year under almost-S never not see.PAST.1SG the ten boss.ACC főnököt. b. Τίχ alatt szinte soha nem láttam (HNC=1.061)year under almost-S never not see.PAST.1SG the boss.ACC 'In my ten years at the company, I almost never saw the boss.'

(6a) is only felicitous under the following convoluted scenario: This is my last day at work. So far, I have never met the boss. And then, unexpectedly, the boss steps into my office, so on my very last working day, I do meet the boss. I almost managed never to see the boss, but I did in the end.

Finally, the two approximators pattern differently with regard to universal quantifiers and free-choice items:

#Ezt feladatot majdnem bárki oldani. (HNC = 10)(7)meg tudja a. a this.ACC the task.ACC almost-M anvone PRT can.3SG solve.INF $(HNC=181)^5$ feladatot szinte bárki oldani. b. тед tudja task.ACC almost-S anyone PRT can.3SG solve.INF this.ACC the 'Almost anyone can solve this task.' feladatot majdnem mindenki Ezt tudja oldani. (HNC = 806)c. meg this.ACC the PRT can.3SG solve.INF

this.ACC the task.ACC almost-M everyone PRT can.3SG solve.INF
d. Ezt a feladatot szinte mindenki meg tudja oldani. (HNC=3922)
this.ACC the task.ACC almost-S everyone PRT can.3SG solve.INF
'Almost everyone can solve this task.'

While a universal quantifier can be felicitously combined with either *majdnem* 'almost-M' or *szinte* 'almost-S', a free-choice item is infelicitious with *majdnem* 'almost-M'.

3. Previous proposals

Some instances of the non-interchangeability of majdnem and szinte have been noted by some authors. Halm (2016a) mentions the contrast between #majdnem bárki 'almost anyone' and szinte bárki 'almost anyone'. Dékány & Csirmaz (2018) point out that majdnem is easier to combine with numerals than szinte (see discussion later). Dékány & Csirmaz (2018) also claim that majdnem elég 'almost-M enough' is more felicitous than szinte elég 'almost-S enough'; this, however, appears to be not borne out by the facts: the Hungarian National Corpus gives a similar number of attestations for both versions (24 vs. 24). In addition to these empirical observations, Piñón (2008) discussess the semantics of majdnem 'almost-M' in

(i) #majdnem akárki (HNC = 0) szinte akárki (HNC = 2)

⁵ As far as the other free-choice paradigm is concerned (cf. Halm 2016b), the results are the following:

passim and sketches a possible-world analysis not dissimilar to ours, without, however, discussing *szinte* 'almost-S' or the contrast between *majdnem* and *szinte*.

In my proposal, I will follow the general view in the literature (see references above) that in the case of approximators such as *majdnem* or *szinte*, two meaning components are to be distinguished:⁶

(8) János majdnem/szinte két méter magas.

John almost two meter high

'John is almost two meters high.'

PROXIMAL component: John is close to being two meters high.

POLAR component: John is not two meters high.

While the semantics of the polar component is relatively straightforward, there is a wider variety of proposals when it comes to modelling the proximal component. However, two broad directions emerge: the intensional approach vs. the scalar approach.

- Intensional approach (possible worlds): While in w₀ (our current world), John is not two meters high, there is alternative world w₁ close to w₀ in which John is two meters high. (Sadock 1981, Nouwen 2006 a.o.)⁷
- Scalar approach: under the current, contextually given precision standard it is untrue that John is two meters high; there is, however, a slightly laxer precision standard under which it is true that John is two meters high. 8 (Sauerland & Stateva 2007, Greenberg & Ronen 2013 a.o.)

Slightly modifying the formulas proposed by Greenberg & Ronen (2013)⁹, the two approaches can be represented as follows:

- INTENSIONAL APPROXIMATOR (one proposition, alternative possible worlds, distance between possible worlds):
- (9) a. POLAR $\neg p_{w0}$ b. PROXIMAL $\exists w_1 \in S_{\text{alt}}(w). \ \text{close}_s(w_1, w_0) \land p_{w1}$
- SCALAR APPROXIMATOR (alternative propositions, one possible world, distance between precision standards):
- (10) a. POLAR $\neg p_{preC,w0}$

i) If events had taken a slightly different turn, I would have lost my wallet.

(intensional)

ii) #I did note quite lose my wallet, but I sort of did.

(scalar)

i) #If events had taken a slightly different turn, these two eggs would have ended up identical. (intensional)

ii) These two eggs are not quite identical, but they sort of are.

(scalar)

⁶ I assume that directionality (the less-than/before effect with numerals and temporal or spatial expressions) is a by-product of polarity (cf. Penka 2005 and Amaral and Del Prete 2010 a.o.)

⁷ To provide some more intuitive examples for intensional approximation vs. scalar approximation, consider:

⁽i) I almost lost my wallet.

⁽ii) These two eggs are almost identical.

Other authors conceptualize scalar approximators without referring to standards of precision, making the simpler assumption that the proposition p modified by the approximator has a set of alternatives, and these alternatives can be ordered into a scale wrt to one another and p (Penka 2005, Nouwen 2006, Amaral & Del Prete 2013). Greenberg & Ronen (2013) use scales of precision with regard to *more or less* (English) and *paxot o yoter* (Modern Hebrew), but only assume the existence of scalar alternatives when it comes to modelling *almost* (English) and *kim' at* (Modern Hebrew).

⁹ (9) is the specification of the general formula proposed by Greenberg & Ronen (2013:6) on the basis of Greenberg & Ronen (2013:6-7). (10) is a formalization of the model proposed by Sauerland & Stateva (2007) expressed in the general formula proposed by Greenberg & Ronen (2013:6).

b. PROXIMAL $\exists pre' \in S_{ALT}(preC)$. $close_s(pre',preC) \land p_{pre',w0}$

4. Synchronic analysis

In this section, I propose a model of the behaviour of the two approximators from a synchronic perspective. I argue that within the grammar of Modern Hungarian, *majdnem* 'almost-M' is an intensional approximator: (Sadock 1981, Nouwen 2006 a.o.):

(11) majdnem p
a. POLAR $\neg p_{w0}$ b. PROXIMAL $\exists w_1 \in S_{ALT}(w). \ close_s(w_1, w_0) \land p_{w1}$

Whereas *szinte* 'almost-S' is a scalar approximator (Sauerland and Stateva 2007, Greenber and Ronen 2013 a.o.):

(12) szinte p

a. POLAR $\neg p_{preC,w0}$ b. PROXIMAL $\exists pre' \in S_{ALT}(preC)$. close_s(pre',preC) $\land p_{pre',w0}$

This model provides a very good fit with the empirical patterns observed in Section 2. The contrast observed in (2) falls out readily: (2a) containing *majdnem* 'almost-M' is felicitous under a readily accessible scenario where the speaker ended up second but would have ended up first in a slightly different possible world, e.g. one in which he did not happen to lose his shoes in the last metres before the finish line. (2b) with *szinte* 'almost-S' is infelicitious though: there does not exist a meaningful precision standard, however lax, under which someone who lost the race may be truthfully asserted as having won the race.

Sentences (1a) and (1b) are both felicitous. If John is only 3 days older than Matthew, then it is the case that under a somewhat laxer precision standard, they are of the same age, a situation covered by sentence (1b) with *szinte* 'majdnem-S'. Also, if two possible worlds only differ in whether the age differential between John and Matthew is 0 days or 3 days, then these two possible worlds are likely to be close under any reasonable closeness metric, and thus, (1a) with *majdnem* is also fully felicitous.

Sentence (4b) with *szinte* 'almost-S' descibes felicitously a situation where the manner in which the mosaics got into Ravenna was not fully accidental strictly speaking, but can be characterized as accidental under a slightly vaguer precision standard. (4a) with *majdnem* 'almost-S' is degraded since the counterfactual reading is not compatible with our world knowledge: it is difficult to conceive of a scenario where the mosaics would have got into Ravenna accidentally were it not for a tiny glitch which caused the world to take a different turn, leading to a close alternative possible world where the mosaics got into Ravenna non-accidentally (i.e. by design).

The proposal to model *majdnem* 'almost-M' as an intensional approximator and *szinte* 'almost-S' as a scalar approximator is also supported by the observation that counterfactual readings are only available with *majdnem* 'almost-M'. Consider:

- (13) a. János majdnem pontosan érkezett,...

 John almost-M on.time arrive.PAST.3SG

 'John almost arrived on time,...

 i. alig egy percet késett.

 just one minute.ACC be.late.PAST.3SG
 he was only a minute late.'
 - ii. de pár kilométerrel a cél előtt lerobbant a kocsija, but couple km.INS the goal before stopped.working the car.his but a couple of kilometres before his destination, his car broke down,

és végül egy jó órát késett. and eventually a good hour.ACC be.late.PAST.3SG and he ended up being more than an hour late.'

b. János szinte pontosan érkezett,...

John almost-S on.time arrive.PAST.3SG

'John almost arrived on time,...

- i. *alig egy percet késett.* just one minute.ACC be.late.PAST.3SG he was only a minute late.'
- pár ii. #de kilométerrel a cél előtt lerobbant kocsija, couple km.INS the goal before stopped.working the car.his but a couple of kilometres before his destination, his car broke down, késett. végül jó órát egy good hour.ACC be.late.PAST.3SG and eventually a and he ended up being more than an hour late.'

The continuation (ii) is only compatible with a counterfactual reading and indeed, as expected, this continuation is felicitous with *majdnem* 'almost-M' but infelicitous with *szinte* 'almost-S'.

Additionally, it is well-known that approximators such as English *almost* display a systematic ambiguity in telic sentences between the twin readings of 'almost starting the process' vs. 'starting and almost concluding the process' (Dowty 1979):¹⁰

- (14) I almost took out a mortgage.
 - i. 'I was seriously considering taking out a mortgage but then I decided against it, and I did not even start the necessary paperwork.'
 - ii. 'I started the process of taking out a mortgage but I changed my mind right before signing the final contracts and backed out of it.'

Here as well, *majdnem* 'almost-M' and *szinte* 'almost-S' pattern differently:

(15) a. *Majdnem megoldottam egy matekpéldát,* almost-M PRT.solve.PAST.1SG a math.problem.ACC 'I almost solved a math problem,

i. de aztán inkább focizni mentem a haverokkal.

but then instead play.football.INF go.PAST.1SG the pals.with
but then I went to play football with my pals instead.'

ii. de a legeslegvége kifogott rajtam.
but the very.end.3SG PRT.grasp.PAST.3SG me.on
but the very last bit of it proved too tricky for me.

b. *Szinte megoldottam egy matekpéldát,* almost-S PRT.solve.PAST.1SG a math.problem.ACC T almost solved a math problem,

i. #de aztán inkább focizni mentem a haverokkal but then instead play.football.INF go.PAST.1SG the pals.with but then I went to play football with my pals instead.'

ii. de a legeslegvége kifogott rajtam.

but the very.end.3SG PRT.grasp.PAST.3SG me.on
but the very last bit of it proved too tricky for me.

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¹⁰ I would like to thank an anonymous reviewer for calling my attention to this point.

With *majdnem* 'almost-M', both readings are available: i) 'almost starting' and ii) 'almost concluding'. With *szinte* 'almost-S', only reading ii) is available: 'almost concluding'. This makes perfect sense in light of the semantics of the two approximators. Note that 'almost starting the process' and 'almost concluding the process' are distant propositions: if you have not even started solving the math problem, there is no alternative level of precision, however lax, under with you can be truthfully asserted as having solved it: this explains why continuation i) (compatible with an 'almost starting' reading) is infelicitious with *szinte* 'almost-S'. However, if two possible worlds only differ in terms of whether you have decided to play football with you friends instead of starting and concluding solving a math problem, those worlds can reasonably be deemed to be close. Because of this, continuation i) (compatible with an 'almost starting' reading) is fully felicitious with *majdnem* 'almost-M'.

To conclude, the neat divison of labour between *majdnem* 'intensional approximator' and *szinte* 'scalar approximator' lends considerable support to a dualistic view of approximators. It should be noted that Kagan and Wolf (2015) have reached a similar conclusion with regard to Russian, analyzing *čut' ne* 'almost' as an intensional approximator and *počti* 'almost' as a scalar approximator.

5. Diachronic analysis - majdnem

In this section, we will have a close look at the diachronic formal semantics (and syntax) of *majdnem* 'almost-M'. I will argue that the synchronic semantics of *majdnem* can be neatly derived from its diachronic sources and trajectory.

At first look, in Modern Hungarian, *majdnem* 'almost-M' seems to be some sort of compound made up of the temporal adverb *majd* 'soon' and the negator *nem* 'not'. However, it appears unlikely that synchronically, the meaning of *majdnem* 'almost-M' could be derived compositionally from these elements: 'it is almost the case that p' and 'it will soon not be the case that p' seem to be distant propositions.

It is important to note, though, that the adverbial *majd* also has a second reading, restricted to fossilized emphatic statements and (for some speakers) to numerals:

- (16) a. Majd(nem) elfelejtettem. almost-M PRT.forget.PAST.1SG 'I almost forgot.'
 - b. *Majd(nem) elájultam*. almost-M PRT.faint.PAST.1SG
 'I almost fainted (with admiration/of fear).'
 - c. *Majd(nem) felrobbantam*. almost-M PRT.explode.PAST.1SG 'I almost exploded (with rage).'
- (17) János majd(nem) két méter magas.

 John almost-M two meter high

 'John is almost two meters tall.'

Here, *majd* on its own (without *nem* 'not') is interpreted as an almost-approximator: 'almost-M'. Furthermore, archaically and in very formal registers, a third variant is also attested in Modern Hungarian: *majdhogynem* 'almost-M', which looks like an amalgamation of *majd* 'soon', *hogy* 'that' and *nem* 'not':

(18) A gyengébb tanulók számára majdhogynem
the weaker students for almost-M
megoldhatatlanok voltak az érettségi feladatok.
unsolvable.PL were the final.exam tasks
'For the weaker students, the tasks in the final exam were almost impossible to solve.'

That is, in addition to the productive *majdnem* 'almost-M', there are also two marginal variants: *majd* 'almost-M' and *majdhogynem* 'almost-M'. As is often the case with fossils, it is reasonable to assume that these marginal variants are remnants from the earlier stages of the diachronic trajectory that gave us Modern Hungarian *majdnem* 'almost-M'.

Indeed, as discussed in the historical linguistics literature (cf. the Historical Dictionary of Hungarian 2:819 and references therein), *majd* 'almost-M' is attested a good 250 years earlier than *majdnem* 'almost-M':

(19) zertelen tezon magaual, mayd el vezti feiet unrestrained do.3SG with.himself almost PRT lose.3SG his.head.ACC 'He fails to restrain himself, he almost loses his head.' Guary Codex (before 1508, 027)

It is easy to see how the approximator *majd* 'almost-M' came about from the temporal adverb *majd* 'soon'. Consider:

(20) a. Majd elájulok.
soon PRT.faint.1SG
'I will faint soon.'11
b. Majd elájulok.
almost-M PRT.faint.1SG
'I am almost fainting.'

(20a) asserts that there is a w_1 such that it is a temporally close continuaton world of w_0 where the speaker is fainting. Since w_1 and w_0 are temporally close, they are also close qua possible worlds under any closeness metric. There is also a scalar implicature to the effect that the speaker is not fainting as of now.

The reinterpretation of *majd* 'soon' into *majd* 'almost-M' involved semantic bleaching (a well-know hallmark of grammaticalization): the temporal meaning component was lost. At the same time, the proximal component was reinforced (from logically entailed to asserted), and the polar component became part of the semantic meaning (as opposed to being a scalar implicature):

(22) majd 'almost-M' $PROXIMAL \qquad \exists w_1 \in S_{\text{ALT}}(w). \ close_s(w_1,w_0) \land p_{w1} \qquad \text{(asserted)}$ $POLAR \qquad \neg p_{w0} \qquad \qquad \text{(entailed}^{13} \text{)}$

Note that such semanticization of originally pragmatically inferred information has also been described as a typical feature of grammaticalization (Eckardt 2006).

Note that in Hungarian, finite verb forms are either marked with a past tense morpheme or they carry no tense morphology. In the latter case, the verb is underspecified in terms of tense and is ambiguous between a present tense or a future tense reading. Hence the ambiguity of *Elájulok*. 'PRT.faint.1SG' between 'I am fainting.' and 'I will faint.'

¹² Logical entailment of the temporal component.

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The precise status of the polar component in approximators in subject to considerable debate (cf. Roberts 2011 and Horn 2002, 2011 and references therein). Here I adopt Horn's (2002) proposal that the polar component is semantically entailed but assertorically inert.

Importantly for our purposes, this grammaticalization process also explains why *majd* 'almost-M' (and its descendant *majdnem* 'almost-M') are approximators defined in intensional terms with a possible worlds semantics.

What remains to be determined is the appearance and amalgamation of *nem* 'not', in other words, how *majdnem* 'almost-M' emerged from *majd* 'almost-M'. As Simonyi (1888) and others (cf. Historical Dictionary of Hungarian 2:819) have claimed, *majdnem* is the amalgamation of *majd* 'almost' and the expletive negator *nem* 'not', however, they stepped short of actually mapping out a grammaticalization pathway. The earliest attestations are the following:

- (23)a' mit én tegnap néktek mondottam, majd hogy nem elég arra, what I yesterday to.you say.PAST.1SG, almost-M that not enough for.that hogy boldogul lenne dolgotok that happily would be your affairs What I told you yesterday is almost enough to make you content with the state of your affairs.' (Ferenc Földi. 1790. Erkölcs-könyvecske, 44)
- (24) majdnem = vix non, fere, ferme, propermodum, paene (Ferenc Verseghy. 1816. Analytica institutionum linguae hungaricae.)

After taking a closer look at the relevant data in the Hungarian Historical Corpus¹⁴, two important patterns emerge. The first is that the appearance of *majdhogynem* (spelling variant: *majd hogy nem*) 'almost-M' preceded the appearance of *majdnem* 'almost-M'. The second is that for an extended period, *majd hogy nem* 'almost-M, literally: almost-that-not' was in competition with *majd hogy* 'almost-M, literally almost-that':

- (25) a. Az én szívem pedig majd hogy meg nem hasadt. (1852) the my heart.1SG then almost that PRT not split 'My heart almost broke.'
 - b. *Sára asszony egészen megváltozott, a szive majd hogy meghasadt.* (1892) Sarah aunt completely PRT.changed the heart.3SG almost that PRT.split 'Aunt Sarah changed completely, her hear almost broke.'

Based on these observations, we can hypothesise the following grammaticalization pathway for 'almost-M': *majd -> majdhogy* (lit. almost-that) *-> majdhogynem* (lit. almost-that-not) *-> majdnem* (lit. almost-not). The locus of the first grammaticalization step was a structure where *majd* 'almost-M' was adjacent to the complementizer *hogy* 'that', exemplified below:

Ördög vigye (1793)(26)(Majd hátra esik) Ni! el, ni! az back falls well well the devil take.IMP PRT almost majd hogy a'kórság belém nem áll! that the disease 1sG.into not stands '(He almost falls to his back.) There, there! May the Devil take it, I am almost struck down by the disease!'

As a first step of analyzing the syntax of sentences such as (26), note that in these sentences, *majd* 'almost-M' patterns with a family of speaker-oriented modal/evidential discourse particles such as *éppen* 'exactly, just in time':

(27) Éppen, hogy elértem a vonatot.

Late 18th to late 20th century, 30 million word tokens.

exactly that PRT.reach.PAST.1SG the train.ACC 'I reached the train just in the nick of time.'

Several models have been proposed for sentences such as (27) above. Kenesei (1992) argues convincingly against a two-clause (main clause – subordinate clause) analysis and proposes that the adverbial particle occupies Spec,CP:

(28) [CP éppen [C hogy [TP elértem a vonatot.]]] exactly that PRT.reach.PAST.1SG the train.ACC 'I reached the train just in the nick of time.'

The monoclausal analysis has achieved consensus, however, there are different proposals as to the position of the adverbial particle. Kenesei (2002) has argued that it occupies Spec,AdvSP (where AdvS stands for sentence adverbial):

(29) [AdvSP éppen [AdvS' hogy [TP elértem a vonatot.]]] exactly that PRT.reach.PAST.1SG the train.ACC 'I reached the train just in the nick of time.'

É. Kiss (2010) proposes a model where the particle occupies the head position of a speech act phrase (SAP):

(30) [SAP SPEAKER [SAP' éppen [CP hogy [TP elértem a vonatot.]]] exactly that PRT.reach.PAST.1SG the train.ACC 'I reached the train just in the nick of time.'

Our proposed analysis is compatible with any of the above proposals. For concreteness and simplicity, we adopt Kenesei (1992) and analyze (26) as follows:

(31) [CP majd [C hogy [TP a kórság belém nem áll.]]] almost that the disease 1SG.intonot stands 'I am almost struck down by the disease.'

As support for this analysis, note that the only conceivable alternative, a biclausal analysis, is easy to exclude as the copula can never intervene between *majd* 'almost-M' and the complementizer *hogy* 'that' (here as well, *majd* 'almost-M' patterns with *éppen* 'exactly'):

- (32) a. *Majd volt, hogy el nem estem.

 almost was that PRT not fall.PAST.1SG intended: 'I almost fell.'

 b. *Étten volt hogy elértem a
 - b. *Eppen volt, hogy elértem a vonatot. exactly was that PRT.catch.PAST.1SG the train.ACC intended: 'I caught the train just in the nick of time.'

The grammaticalization process involved the reinterpretation of the two adjacent elements, *majd* 'almost-M' and *hogy* 'that' as a single adverbial:

(33) a. [CP majd [C' hogy [TP meghasad a szívem.]]]
almost that PRT.split.3SG the heart.1SG
'My heart is almost breaking.'
b. [TP [AdvP majdhogy] [TP meghasad a szívem]]]

almost PRT.split.3SG the heart.1SG 'My heart is almost breaking.'

The éppen, hogy 'exactly' -> éppenhogy 'exactly' reinterpretation probably proceeded along similar lines. The clearest sign that the reinterpretation has indeed taken place is that in Modern Hungarian, both majdhogy 'almost-M' and éppenhogy 'exactly' can freely appear clause-internally:

derek.am majdhogy letört. (1943)(34)a. A the back.1SG almost PRT.broke 'My back almost broke.' éppenhogy Magyarország kvóták érdekében születtek. (2018)the quotas exactly Hungary interest.3sG.in were.born 'The quota system was explicitly designed to serve the interests of Hungary.'

As usual, this amalgamation into a single element was followed only with some delay by orthography and for a period of time, the amalgamated *majdhogy* continued to be spelled as *majd hogy*.

It should also be noted that in Hungarian, as well as in many other languages, complementizer-drop is widely attested under certain circumstances. This means that an underlying *majd hogy* construction may emerge as a clause-inital *majd* construction:

a. [CP' majd]C' hogy (35)TP meghasad szívem.]]] PRT.split.3SG heart.1SG that the 'My heart is almost breaking.' b. [CP] eppen[c' hogy TP jókor érkeztél.]]] exactly that at.good.time arrive.PAST.2SG 'You arrived just at the right time.' c. [CP' csak [c' hogy [_{TP} megérkeztél.]]] PRT.arrive.PAST.2SG only that 'You did arrive at long last.'

Turning to the semantically apparently superfluous *nem* 'not' element, we should note first that in Hungarian, expletive negation is widely attested in mirative contexts such as in wh-exclamatives or so-called surprise negation sentences (cf. Halm and Huszár 2021):

(36) a. (hogy) mik történnek manapság! meg nem that what.PL PRT not happen.3PL these.days 'What (surprising) things happen these days!' PIN-kódomat!? b. *(hát)* nem elfelejtettem well not PRT.forget.PAST.1SG the PIN-code.1sG 'I forgot my PIN code (unexpectedly)!'

It is reasonable to assume that such an expletive *nem* 'not' could appear together with approximatives in sentences with a mirative flavour, as is indeed attested by the example discussed in (26), reproduced here for convenience as (37):

(37)(Majd hátra esik) Ni! ni! Ördög vigye el, azback falls well well the devil take.IMP PRT almost majd hogy a'kórság belém nem áll! (1793)that the disease 1sG.into not stands '(He almost falls to his back.) There, there! May the Devil take it, I am almost struck down by the disease!'

The immediately pre-verbal position of the negator in (37) suggests that the expletive negator is in the lowermost, T^0 -adjoined position, and such, it is associated with negation on the level of implicatures, or more specifically, it "corresponds to pre-encoding implicature cancellation syntactically" (cf. Delfitto, Melloni & Vender (2019, 62) and Halm & Huszár (2021, 575). However, it is unclear what the negated implicature would be in the case of sentences with either *majd* 'almost-M' or *majd* 'soon' (note that technically, both readings are available in (35)). The polar component is implied in the case of *majd* 'soon' (and asserted in the case of *majd* 'almost-M'), however, the cancelling of this meaning component would lead to a reading where *majd* p lacks a $\neg p$ meaning component, a clearly unwelcome result.

As a more promising analytical alternative, one might consider Jin & Koenig's (2019, 2021) production-based account of expletive negation. Jin & Koenig (2019, 2021) point out that cross-linguistically, expletive negation is typically triggered by propositional operators that either entail or imply the negation of their propositional arguments. They account for this pattern by proposing that expletive negation associated with such lexical triggers is the end result of the grammaticalization of a production error. Consider French *craindre* 'fear': *craindre* 'fear' p entails *the attitude holder wishes for* $\neg p$. Because of this, in the course of production, $\neg p$ is also activated and this might lead to a speech error (cf. the spreading-activation theory of production, Dell 1986):

(38) a. Je crains qu' elle vienne.

I fear.1SG that she come.SUBJ.3SG
'I am afraid that she will come.'

b. Je crains qu' elle ne vienne.

I fear.1SG that she not come.SUBJ.3SG
intended: 'I am afraid that she will come.'

If such speech errors are frequent enough, they are grammaticalized, giving rise to expletive negation:

(39) a. Je crains qu' elle ne vienne. (expletive negation)

I fear.1SG that she not come.SUBJ.3SG intended: 'I am afraid that she will come.'

Since *majd* 'almost-M' *p* entails ¬*p*, Jin & Koening's (2019, 2021) model in fact predicts that *majd* 'almost-M' is likely to serve as a trigger of expletive negation. Indeed, *almost*-approximators in other languages such as Hebrew, Mandarin Chinese, French, Portuguese, Spanish, Polish and Russian ¹⁵ have been documented as triggers of expletive negation. ¹⁶

A more thorough evaluation of the two approaches has to be left for further work, however, we can establish with reasonable certainty that the source of the *nem* 'not' element in *majdnem* 'almost-M' was an expletive negator *nem* 'not'.

The subsequent reinterpretation of *majdhogy* 'almost-M' and *nem* 'not' as a single compound *majdhogynem* 'almost-M' was facilitated by the fact that the expletive negator is semantically vacuous (i.e., it does not encode negation on the truth-conditional, semantic level). The locus of reinterpretation must have been environments where these two elements were juxtaposed (in the absence of a verbal particle), exemplified below:

(40) Minden sorában egy szív megreped; every line.3SG.in a heart PRT.breaks

¹⁵ Jin & Koenig (2021) analyze Russian čuť ne as čuť 'almost' plus ne 'expletive negator', whereas Kagan & Wolf (2015) analyze it a single item: čuť ne 'almost'.

¹⁶ For a recent application of this framework to a complex problem of historical linguistics (the development of the negative counterfactual marker in Hebrew and Aramaic), see Bar-Asher Siegal (2020).

Könyétől könyve majd hogy nem csepeg. (1845) tear.38G.from book.38G almost-M that not drips 'In every line of his, a heart breaks, His book is almost dripping with his tears.'

Whether *majdhogynem* came about in two consecutive steps (*majd hogy -> majdhogy* and *majdhogy nem -> majdhogynem*) or in a single step (*majd hogy nem -> majdhogynem*) probably cannot be answered with certainty, especially as it is perfectly possible that the two processes took place in parallel fashion:

3 STEPS:

(41)a. [CP majd [c, hogy TP nem csepeg almost that not drips b. [TP [AdvP majdhogy] [TP nem csepeg almost drips not c. TP AdvP majdhogynem] [TP csepeg]] almost drips 'It is almost dripping.'

2 STEPS:

(42) a. [CP majd [C' hogy [TP nem csepeg]]] almost that not drips b. [TP [AdvP majdhogynem] [TP csepeg]] almost drips 'It is almost dripping.'

As far as the emergence of *majdnem* 'almost-M' is concerned, there are two hypotheses to consider. One may entertain the possibility that it was derived from *majdhogynem* 'almost-M' via the drop of the element *hogy*. However, it seems unlikely that an element would be simply dropped from the middle of a word, even if the morphological makeup of the word is still accessible to some extent. A more plausible scenario is that it derives from *majd bogy nem* 'almost that not', that is, from structures where the complementizer was phonologically null due to that-drop (cf. (31) above):

(43) a. [CP majd [C' bogy [TP nem csepeg]]]
almost that not drips
b. [TP [AdvP majdnem] [TP csepeg]]
almost drips
'It is almost dripping.'

After the reinterpretation, *majdnem* 'almost-M' and *majdhogynem* 'almost-M' are monomorphemic, and the syllable *nem* has no independent meaning or function. This is illustrated by the fact that an expletive negator can freely appear together with them:

(44) Majdhogynem el nem zavartak.¹⁷ almost PRT not send.away.PAST.3PL 'They almost sent me away.'

¹⁷ https://forum.index.hu/Article/showArticle?na_start=5922&na_step=30&t=9000099&na_order, blogpost, dated: 12th May 2000, accessed: 13th April, 2021.

(45) Forraljuk addig, amíg a víz majdnem el nem fogy. ¹⁸ boil.IMP that.to until the water almost PRT not diminishes 'Boil the water until it is almost all gone.'

It should be noted that the grammaticalization pathway described above seems to be closely mirrored by other similar elements such as csak(hogy)nem¹⁹ 'almost, archaic', alighogynem²⁰ 'almost, archaic', and alig(ha)nem²¹ 'most probably, archaic'. Consider:

csak(hogy)nem 'almost, archaic':

(46) a. [CP csak [C: hogy [TP nem csepeg]]] only that not drips

'It is barely not dripping.' (note that here the negation is not expletive)

b. [TP [AdvP csakhogy] [TP nem csepeg]] except that it is not dripping.'

c. [TP [AdvP csakhogynem] [TP csepeg]] almost drips
'It is almost dripping.'

(47) a. [CP csak [C bogy [TP nem csepeg]]]
only that not drips
'It is barely not dripping.'
b. [TP [Add P. csak nem] [TP csepeg]]

b. [TP [AdvP csaknem] [TP csepeg]] almost drips
'It is almost dripping.'

alighogynem 'almost, archaic':

(48) a. [CP alig [C hogy [TP nem csepeg]]]

barely that not drips

'It is barely not dripping.'

b. [TP [AdvP alighogynem] [TP csepeg]]

almost drips

(i) csaknem bárki (HNC=1) almost anyone intended: 'almost anyone'

(ii) csaknem mindenki (HNC=176) almost everyone 'almost everyone'

This, together with the diachronic pathway sketched above, suggests that csaknem is an epistemic approximator.

20 Consider:

(i) Hanem még a pártján lévőket is alighogynem czinkostársaknak mondja. (1907) rather even the party.38G.on be.PCP.PL.ACC too almost accomplices.DAT says 'Rather, he goes as far as to almost characterize his supporters as his accomplices.'

21 Consider:

(i) Közvetlenül a front mögött szolgált, alignem munkásosztaga volt. (1917) directly the front behind served most.probably labour.platoon.38G was 'He served directly behind the front, most probably, he was heading a labour platoon.'

¹⁸ https://hu.koshachek.com/articles/kaposzta-sovany-marhahussal-kaloria-receptek.html, blogpost, dated: 1st December, 2020, accessed: April 13th 2022.

Providing an exhaustive answer to the question whether *csaknem* is an epistemic or scalar approximator is beyond our scope here. Nevertheless, using the test of FCI-modification shows that *csaknem* patterns with *majdnem* 'almost-M':

'It is almost dripping.'

alig(ha)nem 'most probably, archaic':

(49) a. [CP alig [C' ha [TP nem csepeg]]] barely if not drips

'If it is not dripping, then it is only by a small margin that it is not dripping.' = 'It is most probably dripping.' (note that here the negation is not expletive)

b. [TP [AdvP alighanem] [TP csepeg]] most.probably drips 'It is most probably dripping.'

(50) a. [CP alig [C ha [TP nem csepeg]]] barely if not drips

'If it is not dripping, then it is only by a small margin that it is not dripping.' = 'It is most probably dripping.' (note that here the negation is not expletive)

b. [TP [AdvP alignem] [TP csepeg]]
most.probably drips
'It is most probably dripping.'

Clarifying the details of these pathways has to be left for further research.

6. Diachronic analysis - szinte

As has been pointed out by Simonyi (1881) among others (cf. the Historical Dictionary of Hungarian 3:760 and references therein), *szinte* 'almost-S' derives from the Old and Middle Hungarian word *szin* 'outer appearance, surface', combined with a locative suffix -t- and the suffix -e (analyzed as either a lative suffix or a possessedness suffix). In Modern Hungarian, this sense of *szin* has almost completely disappeared²², surviving only in a handful of fossils such as:

(51) *a viz szine* the water surface.3SG 'the surface of the water'

(52) szín-lel outer.appearance-verbalizer 'to pretend, to create and keep up a false appearance'

In Old Hungarian, *szinte* meant 'by appearance, by superficial similarity'. The first attestation of *szinte* 'almost-S' is from Early Middle Hungarian:

(53) olian kemenion [...] mint zinte a zaraz fold az o labai alat so hard as almost the dry land the he foot.3SG.PL under 'Almost as hard as the dry land under his feet.' (Debrecen Codex 1519, 177)

It is easy to recognize how the grammaticalization process probably unfolded, bringing about a reinter-pretation from 'by appearance, by superficial similarity' to 'by a laxer standard of precision'. Consider:

(54) a. szinte teljesen egészséges

²² In Modern Hungarian, szín means colour, a meaning clearly related to but distinct from the one discussed in the main text.

by.appearance completely healthy 'completely healthy by the look of it' b. szinte teljesen egészséges almost-S completely healthy 'almost completely healthy'

If someone appears completely healthy upon cursory visual inspection, it follows that she is completely healthy by a laxer standard of precision. Additionally, there is a scalar implicature that she is not healthy by a stricter standard of precision: if she were, we would expect the speaker to say so, instead of making a less informative statement. More formally, *szinte* 'by physical appearance, by superficial similarity' can be represented as:

(55) szinte 'by physical appearance, by superficial similarity'

SIMILARITY p_{w0} by physical appearance (asserted)

PROXIMITY $\exists pre' \in S_{ALT}(preC)$. close_s(pre',preC) $\land p_{pre',w0}$ (entailed)

POLAR $\neg p_{w0}$ (scalar implicature)

Szinte 'almost-S' can be represented as:

(56) szinte 'almost-S' $\begin{array}{ll} & \text{PROXIMITY} & \exists pre' \in S_{\text{ALT}}(preC). \ close_s(pre',preC) \land p_{pre',w0} \ \ (asserted) \\ & \text{POLAR} & \neg p_{w0} \end{array}$ (entailed²³)

This reinterpretation involved semantic bleaching (a well-known hallmark of grammaticalization): the physical similarity meaning component was lost. At the same time, the proximal component was reinforced (from logically entailed to asserted), and the polar component became part of the semantic meaning (as opposed to being a scalar implicature): another case of the semanticization of originally pragmatically inferred information (Eckardt 2006).

Archaically and dialectally, the variant *szint(e)hogy* 'almost-S' is also attested. The diachrony of this form can be analyzed in similar fashion to *majdhogy* 'almost-M' (see above). Consider:

(57) [CP Szinte, [C hogy [TP dagadt a mellök almost that swelled the breast.3PL az egymás biztatásától.]]]²⁴ the each.other encouragement.3SG.from

'They were almost swelling with confidence having encouraged each other.'

(58) Megvetett az övéhez képest [AdvP szinthogy] értéktelen gépjárművem [...] miatt.²⁵ despised the his.ALL compared almost valueless car.1SG because.of 'He despised me because of my car, which was almost valueless compared to his.'

Interestingly, expletive negation with *szinte* 'almost-S' is only sporadically attested:

(59) Az ártatlan vendéglős még törzsvendégeit is
The innocent restaurateur even regular.guest.PL.3SG.ACC too
szinte hogy el nem vesztette.²⁶
almost-S that PRT not lose.PAST.3SG

²³ Cf. footnote 11.

²⁴ Váth János: Ég a Papnádas. 1929. In: Váth János: Balatoni levegőben. Balatonfüred: Balatoni Szövetség.

²⁵ https://kiszamolo.hu/gazdagnak-latszani-mindenaron/comment-page-2/, blogpost, dated: 2017 October 22nd, accessed: 2020 June 21st.

²⁶ Simon Péter: Király és Korona. 1892. Kosmos Műintézet.

'The innocent restaurateur has almost lost his regular guests too.'

As a consequence, the forms szint(e)nem and szint(e)hogynem are also extremely rare:

```
(60) Legutoljára úgy 2007 januárjában futottam bele [...]
last.time so 2007 January.in run.PAST.1SG her.into [...]
szintehogynem szó szerint.<sup>27</sup>
almost-M word according.to
'It was around 2007 January that I bumped into her (almost literally) for the last time.
```

This is a striking pattern: while the intensional approximator *majd* licenses expletive negation, the scalar approximator *szinte* does not (or only to a very limited extent). This pattern receives a natural explanation in Jin & Koenig's (2019, 2021) framework. *Majd p* entails $\neg p_{pn0}$ (*p* is categorically untrue in w₀), whereas *szinte p* entails $\neg p_{pneC,m0}$ and asserts $p_{pne',m0}$ (*p* is untrue in w⁰ under the contextually given precision standard preC but it is true in w⁰ under a different precision standard). This means that $\neg p$ is more strongly activated by intensional *majd* than it is by scalar *szinte*, which in turn leads to a higher likelihood of erroneous production of the negator in the case of *majd*. The end result is that with *majd*, the use of expletive negation is highly entrenched (cf. Langacker 1987, also: Jin & Koenig 2019:164), whereas with *szinte*, it is very lowly entrenched. (Note that synchronically, the intensional approximator *majdnem* also licenses expletive negation, as we have seen in examples 44 and 45).

7. An ongoing development

In this section, I discuss an ongoing development. In almost+numeral environments, both *majdnem* and *szinte* are attested:

- (61) Majdnem két méter magas vagyok, és hozzá száz kilót nyomok almost-M two meter high be.1SG and to.that hundred kilo.ACC weigh.1SG 'I am almost two metres high and on top of that, I weigh a hundred kilos.'
- (62) Danny igazi ember-hegy: szinte két méter magas és hatalmas izmai vannak.

 Danny real man-mountain almost-S two meter high and huge muscle.3SG.PL be.3PL 'Danny is a real mountain of a man: he is almost two metres high and has huge muscles.'

However, as has been pointed out by Dékány & Csirmaz (2018), for most speakers, *szinte* is marked here, something which our proposal does not explain. Adding a diachronic dimension, evidence from the Hungarian Historical Corpus shows that in those environments where *majdnem* and *szinte* compete (such as almost+numeral constructions), *majdnem* is in the gradual process of crowding *szinte* out, with the change showing the well-known logistic curve (or S-curve, cf. Kroch 1990; Niyogi & Berwick 1997):

²⁷ https://hoze.blog.hu/2008/05/22/rip_dj_reakthor, blogpost, dated: 22nd May 2008, accessed: 13th April, 2022.

²⁸ In Russian too, the intensional approximator čuť licenses the expletive negator ne, whereas the scalar approximator počti does not (Kagan & Wolf 2015, Jin & Koenig 2021).

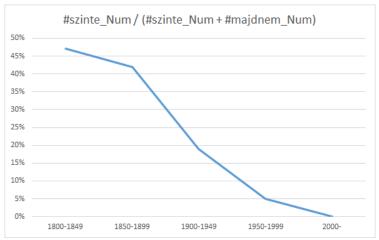


Chart 1: The proportion of szinte in almost+numeral constructions

An explanation of this observation can be offered in terms of Niyogi's (2002) model of language acquisition and competing grammars. According to this framework, the direction of change between two competing grammars depends on the relative frequency of the following environments:

- environments where both szinte 'almost-S' and majdnem 'almost-M' can be used
- environments where only *szinte* 'almost-S' can be used
- environments where only majdnem 'almost-M' can be used

While in principle, considering their semantics, both *majdnem* 'almost-M' and *szinte* 'almost-S' can be freely combined with numerals, *szinte* (implying a relaxation of precision standards) is less felicitous and more marked with numeral+unit combinations that suggest precision:

- (63) a. János majdnem két méter magas.

 John almost-M two meter high
 'John is almost two metres high.'
 - b. János szinte két méter magas. John almost-S two meter high 'John is almost two metres high.'
 - c. János majdnem 190 centi magas. John almost-M 190 cm high 'John is almost 190 cms high.'
 - d. ??János szinte 190 centi magas. John almost-S 190 cm high 'John is almost 190 cms high.'
 - e. János majdnem 191 centi magas. John almost-M 191 cm high 'John is almost 191 cms high.'
 - f. #János szinte 191 centi magas. John almost-S 191 cm high 'John is almost 191 cms high.'

This means that *majdnem* has a competitive edge in terms of language acquisition in these environments. Through successive cycles of language acquisition across generations, this advantage causes *majdnem* to crowd out *szinte* in these competitive environments.

8. Conclusion

In this paper, I explored the formal semantics of two almost-approximators in Hungarian, majdnem and szinte, from a synchronic and diachronic perspective. I argued that the traditional view which regards these too elements as stylistic alternatives is incorrect: there exist environments where only one of them can be used felicitously. I pointed out that this distribution pattern falls out naturally if we assume that majdnem is an intensional almost-approximator, whereas szinte is a scalar almost-approximator. From a historical perspective, I showed that the synchronic formal semantics of these approximators derives neatly from the trajectories of their respective grammaticalization pathways. Majdnem derives from the temporal adverb majd 'later, soon' and developed into an approximator defined in possible world terms. Szinte derives from an adverb meaning 'by appearance, by superificial similarity', and developed into an approximator defined in scalar terms.

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