Doktori (Ph.D.) értekezés

MORE THAN JUST FUTURE

On the non-temporal functions of future markers in Hungarian

Author: Viktória Virovec
Supervisor: György Rákosi, PhD

Debreceni Egyetem
Bölcsésztudományi Kar
2024

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Értekezés a doktori (Ph.D.) fokozat megszerzése érdekében a nyelvtudományok tudományágban.

Írta: Virovec Viktória okleveles általános iskolai angol nyelv és kultúra tanára és okleveles általános iskolai matematikatanár.

Készült a Debreceni Egyetem Nyelvtudományok Doktori Iskolája (Angol Nyelvészet programja) keretében.

Témavezető: Dr. Rákosi György

Az értekezés bírálói:

Dr.	
Dr.	
Dr.	

A bírálóbizottság:

elnök:	Dr.	
tagok:	Dr.	
	Dr.	
	Dr.	

A nyilvános vita időpontja: Debrecen, 2024.

Én Virovec Viktória teljes felelősségem tudatában kijelentem, hogy a benyújtott értekezés önálló munka, a szerzői jog nemzetközi normáinak tiszteletben tartásával készült, a benne található irodalmi hivatkozások egyértelműek és teljesek. Nem állok doktori fokozat visszavonására irányuló eljárás alatt, illetve 5 éven belül nem vontak vissza tőlem odaítélt doktori fokozatot. Jelen értekezést korábban más intézményben nem nyújtottam be és azt nem utasították el.

Virovec Viktória

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Acknowledgments

If one looks back on his/her life, it is easy to see how many different ways our life could have turned out to be. There are many different paths we could have walked through, some of which would have led to similar destinations, while the others have not. From the very moment we are born, our lives and personalities are formed by the stimuli we receive and the people we meet (or get inspired by). There are many people without whom I would never be the person I am today and this dissertation never would have come into existence. In this section, I would like to thank each of them.

First and foremost, I am grateful for the continuous support of my mother and father, who have been there for me since the beginning of this journey which we call life. I am also grateful to my boyfriend, Márk Oláh, for his help and emotional support. I am very happy that we could go through this journey together, supporting each other. I am also thankful to all my friends. In particular, thank you to Brigitta Nagy for being the friend I could always turn to for encouragement.

Whenever I think of the 'reason' why I have become a linguist, two names come to my mind. One of them is Katalin É. Kiss. Even though I hardly ever talked to her, I read many of her papers, which made me fall in love with Linguistics and showed me the real beauty of studying languages. The other is Lisa Matthewson. I have not been lucky enough to meet her, but I know one thing for sure, she is the one who made me interested in Semantics and inspired me to become a Semanticist. If it had not been for her, I would have never become the researcher who I am today. I am so incredibly thankful to her for showing me through her work how interesting investigating meaning could be. I believe that inspiring others is one of the greatest beauties of being a researcher. I just hope that my works and papers will sometime inspire someone the way these two people inspired me.

Thank you to the whole Institute of English and American Studies at the University of Debrecen, especially to the faculty of the Department of English Linguistics, for their continuous support and encouragement. I am grateful to all of my professors who have been nothing but wonderful. I am grateful for the help and guidance of my supervisor, György Rákosi. I am also thankful to Éva Kardos, for always being so nice to me and for being so supportive of my work. I am beyond grateful to my first and only co-author (so far) whom I am lucky enough to call my friend, Lilla Kamilla Sándor. Being her supervisor has made me a better researcher and taught me how to look at my work from a different perspective. I remember being told that having a child makes someone grow up. I strongly believe that supervising a very talented, young researcher made me grow and I feel beyond fortunate that I was lucky enough to have this experience. I am very happy that I was able to work with her. I am so incredibly proud of the researcher she

has become and I can only hope that I have been able to guide her and inspire her the way she deserves to be guided and inspired. I am grateful to Amira Difallah for being such a great friend to me and for always being there for me. I am also thankful to all my students for making me a better teacher by being so curious and hard-working. I am grateful to the professors of the Institute of Mathematics at the University of Debrecen for giving me invaluable knowledge that I can use as a researcher. Thank you to the whole Doctoral School of Linguistics for their support.

Last but not least, I have been very lucky that so many amazing linguists helped me through the years. I am thankful to each and every one of them for making me feel so welcome and part of an amazing community. Without their help, this dissertation would never exist. In particular, I would like to express my gratitude to István Kenesei for giving me so many pieces of invaluable advice, to Beáta Gyuris and Nóra Kugler for their suggestions, advice, and support, to Tamás Halm for his encouragement, to Balázs Surányi, Gábor Alberti, and the anonymous reviewers without whom the fourth chapter would have never got its current form. Thank you to those involved in the LingDokKonf 23, the ICSH 15, the 17th Félúton Conference, the Össznyelvész Conference (2021), the Szeprakonf Conference (2022), the FoDS 7, the Nyelvelmélet és Diakrónia 5, and the MASZAT Nyelvészeti Esték conferences for giving their feedback on the early versions of my works presented in this dissertation which significantly improved the quality of them. Last but not least, I would like to express my gratitude to the preliminary defence committee, Gábor Alberti, Enikő Tóth, Éva Kardos, Erzsébeth Balogh, and Péter Csatár for their feedback and suggestions.

I would like to dedicate this dissertation to the loving memory of my grandfather, who has always supported me.

Glossary

We use the following abbreviations:

(1) INF– infinitive
(2) PST–past tense
(3) NPST– non-past (tense)
(4) FUT– future marker
(5) PERF– perfective marker
(6) IMPERF– imperfective marker
(7) IMP–imperative mood
(8) SUBJ– subjunctive mood
(9) ACC– accusative case
(10) DAT– dative case
(11) INST– instrumental case

(12) POSS– possesive case
(13) GEN–genitve case
(14) MAJD– the adverbial particle *majd*
(15) PROX–the proximity marker *most*
(16) APROX– approximator
(17) MOD–modal suffix

1. Introduction

1.1. **Goals.** The main goal of the dissertation is to add to the growing body of research that establish a connection between markers of epistemicity/inferentiality and futurity and to discuss various functions future-referring morphemes can have. As we conceptualize the world around us, it can be argued that the past and the future are fundamentally different. One can remember facts of the past, but when talking about the future, we talk about possible ways our world can turn out to be. We can base our claims about the future on present knowledge and our intentions. The evidence we base our claims on can vary in source and strength, but talking about the future frequently involves making predictions/making inferences. The signature mark of the epistemic reading is the indirectness of evidence in settling the prejacent, and indirect knowledge "*is knowledge based on logical inferences*" (Karttunen 1972:13). In the dissertation, by studying Hungarian, it is argued that there are many different functions that epistemic modals/adverbs and future-referring morphemes share. The main focus is on three morphemes: *fog* 'will', *majd* 'later', and *kellesz* 'must.fut' (that is used to express future necessity in certain dialects of Hungarian). Besides introspective data, the dissertation includes the results of an informal questionnaire study on the use/distribution of *fog* and the non-past, and two empirical studies (a judgment test and a production test with follow-up interviews) on the use of *kellesz*.

1.2. **Structure of the dissertation.** In Chapter 2, basic Hungarian data are introduced. The three 'main ways' of expressing future-time reference in Hungarian are discussed. These are: the Hungarian futurate (future-referring use of the non-past), *fog*, and the use of *majd*. Besides that, a short overview of the Hungarian aspectual system is presented in this sub-chapter.

Chapter 3 is an overview of the Kratzerian view on modality (1981, 1991). Her main idea is that modals are not ambiguous, but they are relative to two conversational backgrounds: the *modal base* and the *ordering source* (Kratzer 1981). The chapter also includes some important notions and definitions: Condoravdi's (2002) at-*relation*, the notion of *settledness*, the *historical equivalence relation*, and the *diversity condition* (Thomason (1984)). Since our analysis is based on previous analyses of the English futurate and

will, we find it particularly important to discuss them early on. therefore, this chapter ends with the a summary of the existing views on the English futurate and *will*.

CHAPTER 4 deals with the three 'ways' of referring to the future in Hungarian. The Hungarian futurate, *fog* 'will' and *majd* are discussed, while the chapter does not focus on *lesz* 'will.be' or any other future-referring morphemes.

The first part focuses on the literature on the Hungarian futurate, *fog*, and their interaction/distribution. It has been argued that the distribution of *fog* and the futurate is mainly affected by the aspectual nature of the predicate and other disambiguators used in the sentence (Palffy-Muhoray 2013, 2016). In order to refute this view, we provide examples that only an analysis which involves different conversational backgrounds (modal basis, ordering source) can account for. Then, the focus is on the modal (and temporal) interpretation of the obligatorily future-oriented auxiliary *fog*, and we provide an analysis of it based on Condoravdi's (2002) account of the English *will*. When giving an analysis of a future morpheme, the question what its contribution is like needs to be answered, and there are three alternative answers:

(i) its contribution can be purely temporal,
(ii) its contribution can be purely modal, in which case the future temporal orientation can be the consequence of its narrowly specified modal base, or
(iii) its contribution can be two-fold, involving a modal and a temporal component.

The view described in (i) is disproved, and it is shown that *fog* is a modal itself. Under the view in (ii) above, *fog* could only have a metaphysical modal base, which satisfies the diversity condition only with future orientation. In order to disprove the view in (ii), it is therefore important to show that *fog* can have an epistemic modal base. In this section, both introspective data and the results of a questionnaire study are presented to show that *fog* –unlike the futurate– can be used if the proposition is inferred and can pattern with the future-oriented epistemic *kell* 'must'. The predictions of the analysis of *fog* presented in this section are tested on introspective and empirical data. The question to what extent and when the futurate and *fog* are in competition with each other is addressed. The factors which affect the speakers' preferences/choices (between the two) are defined. It is argued that the use of *fog* –as opposed to the futurate –can express a wide range of future-referring readings (epistemic-inferential, prediction, scheduled, intention-based future). It is further claimed that the use of the futurate requires decidedness, however, –as opposed to the English futurate– this decidedness can be subjective, meaning that something can be decided against the speaker's belief-state. Therefore, by using the futurate, one cannot express a genuine prediction, and the use of the futurate is also infelicitous if the speaker infers the truth of the proposition. The second half of the section deals with the use of the *majd*-future. It is argued that *majd* is not a temporal adverb. All the properties that

set *majd* and other future-referring temporal adverbs apart are listed. The most notable ones are the following: *majd* can be used with stative predicates (just like *fog*), and it can be used together with other future-referring temporal adverbs (in the same clause). The differences between the *majd*-future, the *fog*-future, and the non-past are discussed in detail. The existing uses of *majd* in present-day and earlier versions of Hungarian are categorized. It is argued that the meaning components of *majd* changed throughout the different periods, and the originally proximal meaning component gradually turned into a distal one. If something is further away in time, it is (even more) uncertain. From this DISTAL component the pragmatic functions (uncertainty, delaying effect) of *majd* developed. In present-day Hungarian, by using *majd*, one can indicate that the event will happen in the distal future, or not at all. After discussing the uses of *majd*, we will compare and contrast *majd* to a proximity marker, *most* (that *majd* is frequently contrasted to when it is negated contrastively). The last part contains a brief discussion of temporal adverbs that are 'similar in meaning' to *most* and *majd*.

CHAPTER 5 deals with *kellesz* 'must.fut'. This structure is used in certain dialects of Hungarian, mainly to express that '*something will be necessary in the future*'. Apart from describing its grammatical features, the focus is on its meaning and uses. The effect of temporal factors (only) on the use and acceptability of *kellesz* has been considered in the literature so far (Virovec (2019)). In this section, the results of a questionnaire study designed to examine the effect of temporal variables on the acceptability of *kellesz* are presented. Based on a subsequent corpus study, it is hypothesized that besides the temporal factors, the use of *kellesz* can have different pragmatic functions: uncertainty and delay. The use of *kellesz* 'must.fut' either emphasizes that the scope proposition is not necessary at present, but it is probable that it will be necessary in the future, or that the speaker is unsure of the necessity of the scope proposition (because it has been inferred, or the speaker has second thoughts about it). These two main usages have a lot in common, they both imply that the necessity of the scope proposition is not a fact but has a certain probability, and therefore they both imply a lesser degree of speaker's commitment. This claim is further validated by the results of an empirical study that includes a production study and follow-up interviews with native speakers of the Northern-Eastern Hungarian dialect. It is argued that the pragmatic functions of *kellesz* developed from its truth-conditional meaning through partial pragmatic fission (defined by Davis & Gutzmann (2015)). As a result, two different structures developed ($kellesz_1$ and $kellesz_2$). The use and truth conditions of these structures are defined.

CHAPTER 6 is about the connection between future-time reference and politeness. Epistemic inferential adverbs (e.g. the English *perhaps* or the Hungarian *talán*) can be used to mitigate the illocutionary force of a request (see. Sifianou (1999) and Kugler (2010)). Higher degree of possibility tend to strengthen it, those located in the middle or

express lower degree of probability tend to weaken it (Kugler (2010)). Future-referring morphemes –especially those referring to the distal future (*majd* and *kellesz*)– are connected to a higher degree of uncertainty. It might not be surprising that the use of some epistemic inferential adverbs and future markers can have the '*politeness effect*'. In the case of *kellesz* –in the absence of a satisfactory amount of authentic examples– the results of a follow-up (small-scale empirical study) are also presented to prove that the use of *kellesz* can turn an order into a polite request. The availability of this special effect in the case of 'both groups' further strengthens the claim that there is a strong connection between markers of epistemicity/inferentiality and futurity in Hungarian.

Chapter 7 is a conclusion.

1.3. **Data collection.** The data presented in this dissertation are of the following types:

- *My own introspective judgement*: If it is not indicated otherwise, the judgement of the data is my own introspective judgement. I was born and raised in the Northern-Eastern part of the country. I consider myself a native speaker of the Northern-Eastern Hungarian (NEH) dialect.
- *From Google search*: All the links to the examples can be found in the footnotes.
- *Hungarian National Corpus* : If the data is from the Hungarian National Corpus, HNC is written after the examples.
- *The Old and Middle Hungarian corpus of informal language use, The Old and Middle Hungarian corpus of informal language use* : If the data is from The Old and Middle Hungarian corpus of informal language use, OMHC is written after the examples.
- *Hungarian Historical Corpus* : If the data is from the Hungarian Historical Corpus, HHC is written after the examples.
- *Attested Examples*: If the example is attested, the average judgement of native speakers is indicated after the example (whenever it is possible). Otherwise the comments of the native speakers are cited.

  We are grateful to our regular consultants (native speakers of the NEH dialect): Vivien Harkai, Gréta Harkai, Dominika Haraszty, Szimonetta Vincze-Fodor, Anikó Magyar, Ákos Lőrincz, Vivien Galgóczy, György Blau, Györgyné Blau, and Ádám Mándi.

2. CHAPTER: Basic assumptions and facts

2.1. **Expressing future-time reference in Hungarian.** Hungarian has a binary tense system. The past is morphologically marked, while the non-past is not inflected for tense. By using the non-past, one can refer to the present, or the future (Palffy-Muhoray (2016)).

(1) a. Írtam egy tanulmányt.
write.PST.1SG a paper.ACC
'I wrote a paper.' *past*

b. (Jelenleg) írok egy tanulmányt.
currently write.NPST.1SG a paper.ACC
'I'm currently writing a paper.' *ongoing*

c. (A jövő hónapban) írok egy tanulmányt.
the future month.in write.NPST.1SG a paper.ACC
'I will write a paper next month.' *future*

In order to get the future-referring reading in (1c), it is important to use a 'disambiguator' device, which can be a temporal-frame adverb, a durative telic predicate, or contextual clues (Palffy-Muhory (2016)). Both Csató (1994) and Palffy-Muhoray (2013, 2016) argue for the importance of the predicate itself. Namely, the future interpretation can also come from the aspectual properties of the predicate used in the sentence, so the non-past alone can express future-time reference together with a (durative) telic predicate (as in 2) (Csató (1994) and Palffy-Muhoray (2013, 2016)).

(2) Megírom a levelet.
PRT.write.NPST.1SG the letter.ACC
'I will write the letter.' *obligatorily future-referring*

Csató (1994) mentions that the Hungarian non-past –as in many European languages– can also be used to talk about scheduled future events.

(3) A vonat háromkor indul.
the train at.three start.NPST.3SG
'The train leaves at 3 o'clock.' Csató (1994:241)

Another way of referring to the future is the use of the auxiliary *fog*. Whenever one uses *fog*, the sentence obligatorily refers to the future without any 'disambiguators'.

According to Dahl (2001), *fog* is one of the two cases of future markers in European languages (the other one is the Romani *le-* 'take') that is derived from verbs with meanings like 'seize' or 'take' (Dahl 2001:324). The main verb *fog* 'seize' is still used in Hungarian.

(4) Megfogtam a kezét.
PRT.take.PST.1SG the hand.POSS.3SG.ACC
'I took her hand.'

The future-referring *fog* is an auxiliary verb (Kenesei (2001)), and it is followed by an infinitival verb form. Unlike most auxiliary-like verbs in present day Hungarian, *fog* is incompatible with past-tense morphology. It must always be in the indicative mood and present tense, it also inflects for person and number.

(5) a. #Jelenleg írni fogok egy tanulmányt.
currently write.INF will.NPST.1SG a paper.ACC
Intended meaning: 'I am currently wrinting a paper.' *no ongoing reading*

b. (A jövő hónapban) írni fogok egy tanulmányt.
the next month.in write.INF will.NPST.1SG a paper.ACC
'I will write a paper next month.' *future*

In Hungarian, "*both the non-past and fog can be used for intention, prediction-based future-time reference, with both scheduled and unscheduled predictions*" (Palffy-Muhoray 2016:85).

(6) a. Meg fogom írni a disszertációmat.
PRT will.NPST.1SG write.INF the dissertation.POSS.1SG.ACC
'I will write my dissertation.' *intention*

b. Megírom a disszertációmat.
PRT.write.NPST.1SG the dissertation.POSS.1SG.ACC
'literal translation: I write my dissertation.' *intention*

c. A vonat holnap 7-kor fog indulni.
the train tomorrow 7-at will.NPST.3SG start.INF
'The train will leave tomorrow at 7 o'clock.' *scheduled*

d. A vonat holnap 7-kor indul.
the train tomorrow 7-at start.INF
'The train leaves tomorrow at 7 o'clock.' *scheduled*

e. Hamilton meg fogja nyerni a jövő évi Forma-1-es
hamilton PRT will.NPST.3SG win.INF the next year's formula-1
világbajnokságot.
world.championship
'Hamilton will win next year's Formula 1 world championship.' *prediction*

f. Hamilton megnyeri a jövő évi Forma-1-es
hamilton PRT.win.NPST.3SG the next year's formula-1
világbajnokságot.
world.championship
literal translation: 'Hamilton wins next year's Formula 1 world championship.'
prediction[1]

Despite the fact that the use of the non-past can refer to the future, the *fog*-construction is frequently used. Grétsy&Kemény (2005) and Palffy-Muhoray (2016) argue that *fog* is used mainly for emphatic purposes in utterances where the non-past itself is unambiguous

[1]In this dissertation, as opposed to Palffy-Muhoray's (2016) claims, it is argued that (6a), (6e) and (6b), (6f) are different. Namely, the futurate can only be used if the proposition is somehow (objectively/subjectively) settled/decided and the speaker knows how. The truth or falsity of an event is subjectively settled if the speaker treats it as decided at the time of the utterance. In the case of (6f), the speaker believes that '*nobody else has the tiniest chance to win*', therefore, Hamilton is (will be) the winner of next year's championship.

and expresses future-time reference. Sherwood (2006) argues that "*the fog future, in line with the semantics of the full verb from which it historically derives (fog 'grasp, clasp, grip'), presents an event as having a high degree of intentionality at the time of utterance, likely to occur along an uninterrupted time-line that begins at the time of utterance and moves ahead in time*" (Sherwood (2006:41)).

Speakers frequently use future-referring temporal adverbs to specify the time of the eventuality or to clarify future-time reference. However, one of them has a very special status in present-day Hungarian. This is the adverbial particle, *majd*. So, it is reasonable to consider the *majd*-future to be a third way (besides the non-past/futurate and *fog*) of referring to the future in Hungarian because, as claimed by Kiefer (2012), the use of it almost always has pragmatic functions (so it is fundamentally different from the use of the future-referring use of non-past (the futurate) by itself). In the case of sentences containing *majd*, it is argued that the English translations must always contain the phrase 'not now, but sometime in the future' (Sherwood (2006), Kiefer (2012)). This delaying function is particularly prominent in sentences where future-time reference is expressed by other means (telic predicate or (other) temporal-frame adverbs).

(7) a. Péter elmegy a boltba.
peter PRT.go.NPST.3SG the shop.to
'Peter will go to the shop.'

b. Péter el fog menni a boltba.
peter PRT will.NPST.3SG go.INF the shop.to
'Peter will go to the shop.'

c. Péter majd elmegy a boltba.
peter later PRT.go.NPST.3SG the shop.to
'Peter will go to the shop sometime in the future, but not now.'

(7a) is temporally unambiguous even without any explicit marking of the future because it contains a telic predicate with a verbal particle in a preverbal position. If the speaker has direct/trustworthy evidence that entails the proposition, (7b) is not any different from (7b), since (7a) is the unmarked/shorter alternative, it is more likely to be preferred by the speakers. (7c) is different from the other two alternatives, the descriptive (at-issue) meaning of the sentence might be the same, but the use of *majd* indicates that the proposition is delayed. (7c) can never refer to the immediate future, while the other two ((7a) and (7b)) can.

The 'fourth way' that is discussed in the literature (see Palffy-Muhoray (2013), (2016)) is the use of *lesz* 'will be'. However, it is quite misleading to call it a 'fourth way' since *lesz* 'will be' is the inflected future form of the verb *van* 'to be' and it is not a general way to refer to the future. It has two distinct meanings: 'will be' and 'become'.

(8) a. Péter éhes lesz (amikor hazaér).
peter hungry will.be when get.home.NPST.3SG
'Peter will be hungry when he gets home.'

b. Péter egyre éhesebb lesz (már alig bírja).
peter increasingly hungrier will.be already hardly handle.it.NPST.3SG
'Peter is becoming hungrier and hungrier, he can hardly handle it.'

Csató (1994) argues that *lesz* came about from the grammaticalization of the meaning of one transformative verb (Csató 1994:241). The existence of *lesz* is the only exception to the binary tense distinction that is a characteristic feature of Hungarian (Palffy-Muhoray 2016:110). No other verb has a grammaticalized future form.

All in all, there are three main ways to refer to the future in Hungarian and those are the non-past (futurate), the *fog*-future, and the *majd*-future.

It is an interesting question how languages express future-time reference in the case of necessity/possibility modals. When referring to future necessity/possibility, the Hungarian necessity modal *kell* 'must' and possibility modal *lehet* 'may' can be used with *majd*, and in some dialects of Hungarian, with *lesz* forming *kellesz* 'must.FUT' and *lehetlesz* 'may.FUT'.

(9) a. El kell majd menni a boltba.
PRT must later go.INF the shop.to
'It will be necessary to go to the shop.' *standard*

b. El kellesz menni a boltba.
PRT must.FUT go.INF the shop.to
'It will be necessary to go to the shop.' *dialectal*

c. El lehet majd menni a boltba.
PRT may later go.INF the shop.to
'It will be possible to go to the shop.' *standard*

d. El lehetlesz menni a boltba.
PRT may.FUT go.INF the shop.to
'It will be possible to go to the shop.' *dialectal*

When interpreting a modal, two temporal relations need to be specified: the temporal perspective and the temporal orientation. If the temporal perspective is future, the sentence means that '*something will be necessary/possible in the future of the reference time*'. If the temporal perspective is present and the orientation is future, the sentence has the following interpretation: '*it is possible/necessary at the utterance-time that something will happen in the future*'. Languages can specify none, one, or both of these relations overtly. Hungarian falls into the category of languages that typically specify only one of these two relations overtly. The question how we can interpret sentences in (9) needs to be answered. The following answers can be taken into consideration: (i) the necessity/possibility modals can only be understood as having a future temporal perspective,

(ii) or they can have a present temporal perspective and a future temporal orientation. In the latter case, it must be discussed how they contribute to the interpretation of the sentence, given the fact that dynamic modals (especially, when they are used together with a telic predicate) inherently have future temporal orientation. The question whether they can have additional pragmatic functions must be considered. The dissertation deals with this question and presents the results of empirical studies that are designed to answer this question.

2.2. **Aspect in Hungarian.** As it has been mentioned in the previous subsection, aspectual properties of the predicate can have an effect on the interpretation of the non-past sentences. Throughout the dissertation, it is suggested that the emergence and the grammaticalization of the current verbal aspectual system might have an effect on the distribution of the 'different Hungarian futures' (the futurate, FOG-future, and MAJD-future) in present-day Hungarian. For that reason, we consider it important to discuss the basic properties of it early on. We would like to note that this is a very short introduction. The curious reader can consult Németh (2012) for a more detailed discussion.

Aspect can refer to lexical (also called as situation) and grammatical (also called as viewpoint) aspect. In the case of lexical aspect, we can distinguish the following aspectual properties: [$\pm Telic$] and [$\pm Dynamic$]. "*The viewpoint categories present in Hungarian are the following: the progressive, the existential, the habitual, the stative resultative and the eventive resultative*" (Németh 2012:304).

Let us start with the discussion of lexical aspect. The following table summarizes the combinations we can get if we combine the above mentioned properties.

Lexical aspect	Dynamic	Telic
State	–	+
Process	+	–
Event	+	+

FIGURE 1. The properties of different types of predicates.

Németh (2012:307)

With stative predicates, only *fog* or *majd* can be used to refer to the future, the non-past alone with any other temporal adverb is ungrammatical (Kiefer (2012), Palffy-Muhoray (2016)). Even though *később* 'later', *idővel* 'in time', and *egyszer* 'once' are similar in meaning, they cannot make the non-past sentence acceptable (and no other adverb can).

(10) *Context: Peter is learning Chinese and he is quite good at it.*

a. Péter jól fog tudni kínaiul.
peter well will.NPST.3SG know.INF chinese
'Peter will be able to speak Chinese well.'

b. Péter jól tud majd kínaiul.
peter will know.NPST.3SG MAJD chinese
'Peter will be able to speak Chinese well.'

c. #Péter jól tud később/idővel/egyszer kínaiul.
peter well know.NPST.3SG later/in.time/once chinese
intended meaning: 'Peter will be able to speak Chinese later.'

In Hungarian, telicity can be "*the consequence of the aspectual effect of the verbal particle itself, or a resultative or locative expression*" (É.Kiss (2008)). By using the well-known *in/for X minutes* test, we can demonstrate that telic interpretation arises "*as a result of telicity-making strategies whereby particles, resultative (or locative) expressions and certain DP-s serve an event-maximizing function*" (Kardos 2016:3). Here, we would like to note that neither of the sentences discussed contains a focused element, negation, or a wh-word. Either of these would affect the position of the verbal particle.

(11) a. Péter 10 percig / *10 perc alatt festett egy ajtót.
peter 10 minute.for / 10 minute under paint.PST.3SG an door.ACC
'Peter was painting / painted a door for 10 minutes.' *atelic*

b. Péter *10 percig / 10 perc alatt lefestett egy ajtót.
peter 10 minute.for / 10 minute under PRT.paint.PST.3SG an door.ACC
'Peter painted a door in 10 minutes.' *telic*

c. Péter *10 percig / 10 perc alatt fehérre festett egy ajtót.
peter 10 minute.for / 10 minute under white.into paint.PST.3SG an door.ACC
'Peter painted a door white in 10 minutes.' *telic*

Kardos (2016:3)

The predicate in (11) receives a telic interpretation when there is a verbal particle (in preverbal position), or when it appears together with a resultative expression. Verbal particles can be telicizing when they directly precede the verb (in neutral sentences), however, it must be noted that this is not always the case. Csirmaz (2006) gives the following pair of examples to prove that taking the absence or presence and the position of the particle into consideration is not always enough to be able to correctly distinguish between the atelic and the telic reading (not even in neutral sentences).

(12) a. János felépített egy házat *1 óráig / 1 óra alatt.
jános PRT.build.PST.3SG a house.ACC 1 hour.for / 1 hour under
'János built a house in an hour.'

b. János felolvasott 1 óráig / *1 óra alatt.
jános PRT.build.PRT.3SG 1 hour.for / 1 hour under
'János was reading/read aloud for an hour.'

Csirmaz (2006:110)

Therefore, it is important that the presence of the verbal particle in its preverbal position in neutral sentences is not necessary, but not even sufficient for a telic interpretation. However, their presence in preverbal position in (neutral) sentences frequently correlates with telicity. For the purpose of this dissertation, we do not want to go into detail. It is sufficient to say that non-past sentences with predicates like *felépíteni egy házat* 'prt.build a house' can only have a future-referring interpretation, while predicates like *épít egy házat* 'build a house' do not necessarily have a future-referring interpretation.[2]

(14) a. János felépít egy házat.
János PRT.build.NPST.3SG a house.ACC
'János will build a house.' *future-referring only*

b. János épít egy házat.
János build.NPST.3SG a house.ACC
'János is building / will build a house.' *ongoing OR future-referring*

Moving on to the discussion of lexical aspect, first, we would like to define what we mean by that. Tense usually designates the reference time and locates it relative to the utterance-time. The use of different temporal-frame adverbials further restricts this reference time. Grammatical aspect locates the event time relative to the reference time. The progressive expresses that the event is in progress during the interval of the reference time (Németh 2012:319). In (15a), the reference interval is present, while in (15b), it is future. So, the sentence has the event-in-progress reading in the former case, while in the case of the latter one, the sentence expresses that the event will be in progress during a future interval. The example was chosen to demonstrate how important the position of the verbal particle in neutral sentences is.

(15) a. Péter (éppen) hordja be a fát.
péter just bring.NPST.3SG PRT the wood.ACC
'Peter is bringing the wood inside (at the moment).'

[2]However, it is true that *felolvas egy könyvet* 'prt.read a book' together with the non-past does have (at least) the ongoing reading. In fact, it is the default reading in the absence of strong contextual clues or with the presence of future-referring adverbs.

(13) a. János (éppen/jelenleg) felolvas egy könyvet.
János just/at.the.moment PRT.read.NPST.3SG a book.ACC
'John is reading out a book.' *ongoing*

b. János holnap felolvas egy könyvet.
János tomorrow PRT.read.NPST.3SG a book
'John will read out a book tomorrow.' *future-referring*

c. *Context: What is John doing tomorrow afternoon?*
János felolvas egy könyvet.
János PRT.read.NPST.3SG a book
'John will read out a book.' *future-referring*

b. Amikor hazaérsz, Péter (éppen) hordja ?(majd) be
when home.get.NPST.2SG péter just bring.NPST.3SG MAJD PRT
/ hordani fogja be a fát.
/ bring.INF will.NPST.3SG PRT the wood.ACC
'When you get home, Péter will be bringing the wood inside.'

Interestingly, the judgements regarding (15b) are inconsistent, some speakers accept the sentence without *majd* (or *fog*), while others do not.[3]

Existential predicates can be derived from a predicate of any situational aspect category (Németh 2012:324). They usually have the '*it has already occurred*' semantic component in their meaning, so the adverb *már* 'already' is a regular part of sentences with existential aspect. Therefore, its future-referring use is frequently neglected in the literature. In the case of the future-referring use, the '*it has already occurred*' component is not necessary present. It is clearly absent in (17d).

(17) a. Adtam már ki sok pénzt fölösleges dologra.
give.PST.3SG already PRT a.lot money.ACC useless thing.to
'I have already spent a lot of money on useless things.'

b. Adok még ki sok pénzt fölösleges dologra.
give.NPST.3SG yet PRT a.lot money.ACC useless thing.to
'I will (still) spent a lot of money on useless things.'

c. Fogok még kiadni sok pénzt fölösleges dologra.
will.NPST.3SG yet PRT.give.INF a.lot money.ACC useless thing.to
'I will (still) spent a lot of money on useless things.'

d. Fogok még havi egy millió forint felett is keresni.
will.NPST.3SG yet monthly one million huf.ACC above too earn.INF
'I will earn more that one million HUF a month (too).'

The habitual reading is only possible with the non-past. *Szokott* 'used.to' can act as a 'disambiguator' device. (18a) is ambiguous between the readings mentioned below, while (18b) is not.

[3]The judgements are similar with activities. When talking about what will happen at my birthday party, it is okay to express what John is going to do at the party by using the futurate (16a). However, when we would like to express that the event of '*playing the piano*' will be in progress (when you get there), the sentence becomes unacceptable without *majd* or *fog* for the vast majority of native speakers. The judgments are also inconsistent regarding (16b).

(16) a. János a jövő heti születésnapomon zongorázik.
jános the next week's birthday.POSS.1SG.on play.the.piano.NPST.3SG
'John will play / is playing the piano at my birthday party next week.'

b. János (éppen) zongorázik ?(majd) / zongorázni fog,
jános just play.the.piano.NPST.3SG MAJD / play.the.piano.INF will.NPST.3SG
amikor odaérsz a bulimra.
when PRT.get.NPST.2SG the party.to
'When you get to my party, John will be playing the piano.'

(18) a. János zongorázik.
john play.the.piano.NPST.3SG
Readings: 1. 'John is playing the piano.' *ongoing*
2. 'John plays the piano.' *habitual*
3. 'John will play the piano.' *future-referring*

b. János szokott zongorázni.
jános used.to play.the.piano.INF
'John plays the piano.' *habitual*

In the case of stative resultatives, the 'VAN+VERB-VA' is the most productive, while in the case of eventive resultatives, the 'LETT+VERB-VA' is the most common construction (Németh 2012:332). As it has been mentioned in the previous sub-section, *van* 'to be.npst.3sg' is the only exception for the 'rule' that Hungarian verbs do not have grammaticalized future forms. So that whenever the resultative has a future-time reference, the future form of *van* is used. Therefore, the *fog* cannot appear in such sentences. The use of *majd* is only felicitous with *lesz* 'be.FUT' if the speaker wants to emphasize that the *christening*-event will only be in the distal future, and not any time soon.

(19) a. Meg vagyok keresztelve.
PRT be.NPST.1SG christened
'I am christened.'

b. Meg leszek keresztelve.
PRT will.be.NPST.1SG christened
'I will be christened.'

c. Meg leszek majd keresztelve.
PRT will.be.NPST.1SG MAJD christened
'I will be christened sometime in the future, (but not now).'

Overall, it can be concluded that aspect, especially the lexical one, might affect the readings non-past sentences can have. The following tables summarize how lexical and grammatical aspect can affect the availability of the future-referring reading in the case of the non-past with/without a temporal adverb/strong context. The findings demonstrated in these tables also serve as a strong argument for the special status of the MAJD-future in Hungarian. In the previous sub-section, it has been argued that *majd* has a special status, and it stands out from the class of temporal adverbs referring to the future.

Predicates	Non-past alone	Non-past with fut. ref. temporal adverbs/strong context	MAJD-future/FOG-future
States	ongoing/characterizing reading/*future-referring reading*	future-time reference is NOT possible	future-referring reading
Processes	ongoing/characterizing reading/*future-referring reading*	future-referring reading IS possible	future-referring reading
Events	future-referring reading	future-referring reading	future-referring reading

FIGURE 2. The effect of the lexical aspect of the predicate on availability of the future-referring reading in the case of the non-past with/without a temporal adverb/strong context.

Aspect	Non-past alone	Non-past with fut. ref. temporal adverbs/strong context	MAJD-future/FOG-future
Progressive	ongoing (at the interval of the reference time)/ *future-referring reading*	future-referring reading is marginal/unacceptable for some speakers	future-referring reading
Habitual	with *szokott* 'used.to'	cannot have this reading	cannot have this reading

FIGURE 3. The effect of the grammatical aspect of the predicate on availability of the future-referring reading in the case of the non-past with/without a temporal adverb/strong context.

Before we further discuss the Hungarian data, we provide a short summary of the Kratzerian view on modality, and the modal analysis of future-time reference. We focus primarily on English data, since there is a substantial amount of work done regarding the English futurate, and *will*.

3. CHAPTER: MODALITY AND TEMPORALITY

This chapter serves as a brief summary of the literature on modality, its interaction with time and temporal operators. The modal analysis of future-time reference is also discussed, the emphasis is on the English non-past and *will*. The reason why we find it particularly important to discuss the English data is that we take Condoravdi (2002)'s analysis of *will* and base our analysis of *fog* on it. Furthermore, we argue throughout the dissertation that the Hungarian data do not necessarily contradict Copley (2009)'s assumption – which she, first, made on *will* – that the use of the futurate might require

a plan or contextual decidedness cross-linguistically. In this chapter, will show that it definitely does in the case of the English futurate.

3.1. **Kratzerian view of modality (1981, 1991).** "*Modality is the category of meaning used to talk about possibilities and necessities, essentiality, states of affairs beyond the actual* "(Hacquard 2011:1484).

Modals in natural languages are relative to (at least) two properties:

- whether they are a necessity or possibility modals (which we will call their *modal force*)
- their accessibility relation, R (which is their *modal flavour*)

Portner (2009:31)

The concept of possible worlds was first defined by Leibniz. Intuitively, "*a possible world is a complete way that the universe could be throughout its history*" (Portner 2009:25). Our world is a possible world, in fact, a special case of it. It is often called the *actual world* in the literature.

In possible world semantics, we identify a proposition with a set of possible worlds in which it is true. For example, we can think of the proposition '*you own a driving license*' as a set of worlds (e.g. w_1, w_2, w_5) if you indeed own a driving license in all of these worlds. So it is easy to see that a proposition is a subset of all the possible worlds. A proposition and the truth of a proposition can be formally defined as follows.

Definition 3.1 (A proposition)**.** *Let W be the set of all possible worlds, then a proposition is a subset of W (Kratzer 1981:42).*

Definition 3.2 (Truth of a proposition)**.** *A proposition p is true in a world $w \in W$ iff $w \in p$. Otherwise p is false in w.*

Kratzer (1981:42)

The force of quantification over these possible worlds can be universal (necessity modals), or existential (possibility modals). Universal quantification means that the proposition is true in all the worlds that are in the set, while in the case of the existential one, it is enough that the proposition is true in (at least) one of the worlds in the set. Modal auxiliaries are also relative to information, desires, laws, regulations etc. We often say that they have various 'flavors' and these flavors correspond to different *accessibility relations*. These accessibility relations are demonstrated by the following examples. The modal flavour is often indicated explicitly by an '*in view of*' phrase.

(20) a. DEONTIC: (In view of the law), You mustn't kill anyone.
R = {the relation which holds between two worlds w and w' iff all of the rules which the system of rules r establishes in w are followed in w' } (Portner 2009:23).

b. EPISTEMIC: (In view of what I know), Peter must be at home.
R = {the relation which holds between two worlds w and w' iff everything which some individual i knows in w is also true in w' } (Portner 2009:22).

c. BOULETIC (In view of her desire of losing weight), Judy shouldn't eat chocolate.
R = {the relation which holds between two worlds w and w' iff all of some individual's i's desires in w are satisfied in w' } (Portner 2009:36).

d. HISTORICAL: (In view of how the actual world was at some point in the past), He might have won the game (Condoravdi 2002:62).
R is a historical accessibility relation iff for some time t, R = {the relation which holds between two worlds w and w' iff w and w' are identical at all times up to and including t }. (Thomason (2002)=Portner (2009:37)).

At this point, one can come to the conclusion that modals are ambiguous, because without the '*in view of*' phrase, one cannot decide the modal's flavour. However, it is not necessarily true. According to Kratzer, "*modals are not ambiguous, they are relative to one or more background assumptions, the conversational backgrounds*" (Kratzer (1981:39)). Consider the following example.

(21) Peter must be at home.
Context 1: I have not seen Peter leaving yet. (*in view of what I know*)
Context 2: Peter's parents ordered him to stay at home. (*in view of the rules of Peter's parents*)

It is relatively easy to see that the context plays a major rule in the interpretation of (21). The '*in view of*' phrase can be drawn from the context. For example, in the first context (*Context 1*), one comes to the 'conclusion' that Peter must be at home based on his/her knowledge of the actual world. So the quantification is over the set of worlds in which everything that the speaker knows in the actual world is also true. In the second one, Peter is obliged to stay at home. So the quantification is over those worlds in which the same regulations hold as in our world (the actual world). The quantification is universal in both readings (meaning that Peter is at home in every accessible world), but these readings clearly involve *quantification over different sets of worlds*. So it can be easily seen how crucial finding the correct set is (Porner 2009:49). Getting back to our example (21), at this point, we need to find a way to get from the '*in view of*' phrase to this correct set of worlds. The '*in view of*' phrase denotes a set of propositions. In the first case, it denotes the set of propositions that the speaker knows at the time and place of the utterance in the given world, while in the case of the second, it denotes a set of regulations that hold at the time/place of the utterance in the given world (Portner 2009:50). Kratzer introduces the notion of a *converstaional background* in order to find a formal way of representing

the meaning of the *in view of* phrase. According to Kratzer, conversational backgrounds "*are best formalized as functions from possible worlds into sets of propositions*" (Kratzer 1981:43). It also must be noted that conversational backgrounds differ from world to world. For example, *what is known* in a particular world w_1 is a set of propositions that is different from *what is known* in another world w_2. According to Kratzer, the meaning of *what is known* is a function f, which assigns to any world $w \in W$ all those propositions which are known in w (Portner 2009:51). Modals require two arguments: a proposition in their scope (*a scope proposition*) and a function from worlds to proposition sets, their restriction (Kratzer (1981), Kratzer (1991)).

The attentive reader might ask the question whether we need to restrict the domain of this function to a certain set of worlds or not. For example, there can be a possible world in which the speaker does not even exists and we talk about his/her knowledge. It is obvious that the context requires some kind of restrictions (e.g. we can only talk about worlds in which the speaker exits). The range of this function (denoted as $f(w)$) is a set of propositions that the speaker knows in w. The set of propositions (denoted as $f(w)$) uniquely determines the conversational background and every conversational background (the function f) uniquely determines an accessibility relation R. Let us consider the following example. If $f(w) = \{p_1, p_2, p_3, p_4\}$ is the set of propositions that the speaker knows in w, then $w^{'}$ is accessible from w iff every fact known by the speaker in w is also true in $w^{'}$. Remember that propositions are sets of worlds, so one can think of the conversational background as a set of sets of worlds. The way to find all the worlds that are accessible from w is simply taking the intersection of all the propositions in $f(w)$. By doing this, it is easy to see that we will get the worlds in which all the propositions are true. At the end, we get a set of worlds–a single proposition–that is accessible from $w^{'}$. Kratzer defines the accessibility relation the following way (Kratzer (1981:46), Kratzer (1991:642)).

Definition 3.3 (Accessibility relation)**.** *Accessibility relation (defined from the conversational background):*
for all $w, w' \in W : wR_f w'$ *iff* $w' \in \cap f(w)$.

Kratzer (1991:642)

So, $\cap f(w)$ denotes a set of worlds in which all the propositions in the set of $f(w)$ are true (the intersection of all the propositions in $f(w)$). According to Kratzer, there are two types of conversational backgrounds that are involved in the interpretation of a modal: the *modal base* and the *ordering source*. The first conversational background – the modal base– determines for every world the set of worlds which is accessible from it.

If we take a step further and we consider other questions, other than finding the appropriate set of worlds to quantify over, we can easily come to the question that how it is possible to represent comparative modality.

(22) It is more likely that I will go to Greece than that I will go to France.

Comparing and ordering are two very closely related concepts. For example, you can read job advertisements and compare the salary that each job would pay and order them accordingly. In that case, the best jobs would obviously be the jobs that pay the most. Similarly, you can order worlds. We first need to define how we would like to order them. We need a second conversational background, the ordering source g which would operate similarly to the modal base. It is a function that assigns every world a set of propositions.

Kratzer (1981) proposes an ordering "$\leq_{g(w)}$ *which ranks worlds according to how close they come to satisfying the ideal world given by g*" (Kratzer 1981:47). The *ordering source* g, introduces an ordering on the accessible worlds, on the worlds of the modal base.

Definition 3.4 (Ordering source)**.** *An ordering source* $\leq_{g(w)}$ *introduces a partial ordering on* W*:*
for all $u, v, w \in W$ *and for any set of propositions* $g(w)$*:*
$u \leq_{g(w)} v$ *iff* $\{p : p \in g(w)$ *and* $v \in p\} \subseteq \{p : p \in g(w)$ *and* $u \in p\}$.

Kratzer (1981:47), Krazter (1991:644)

"*A world* u *is at least as close to the ideal represented by* $g(w)$ *as a world* v *iff all the propositions in* $g(w)$ *which are true in* v *are true in* u *as well*" (Krazter (1991:644)).

The assumption that there is a "best" set of worlds is not trivial. The ordering can arise in a set from which it is impossible to select a "best" set. For example, XY wants to be super rich, his/her preferences can be represented by a bouletic ordering source, and it has a infinite set of propositions, because you can always have a larger amount of money on your bank account no matter how much you already have. The assumption that there is always a "best" set of worlds is called *the limit assumption* (Portner 2009:66).

Let $g(w)$ be the following set $g(w) = \{p_1, p_2, p_3\}$. Let w_4 be the world where p_1, p_3 are true and w_6 the world where only p_3 is true.$\{p : p \in g(w) \& w_6 \in p\} = \{p_3\} \subseteq \{p : p \in g(w) \& w_4 \in p\} = \{p_1, p_3\}$, therefore $w_4 \leq_{g(w)} w_6$. We can say that w_4 is at least as close to the ideal as w_6, because all the propositions true in w_6 are also true in w_4. However, it is easy to see that any two accessible worlds are not always comparable.

The relation $\leq_{g(w)}$ is *reflexive* and *transitive*, but not necessarily *antisymmetric* (Kratzer 1981:47). The reflexivity and transitivity are easy to see, and the fact that two accessible worlds are not always comparable guarantees that the relation is not necessarily antisymmetric. If it were antisymmetric, it would mean that if $w_4 \leq_{g(w)} w_6$ and $w_6 \leq_{g(w)} w_4$, then $w_4 = w_6$, which is not necessarily true because it is easy to find two distinct worlds in which the same relevant propositions are true.

So, Kratzer distinguishes three dimensions that help us differentiate modalities in different languages: the type of the modal force, the type of the modal base, and the type of the ordering source. There are two types of modal bases, the epistemic and the circumstantial one. If the modal base is *circumstantial*, then $f(w)$ is a set of circumstances holding in w. If the *modal base* is *epistemic*, then $f(w)$ is a set of facts known by the speaker in w (Kratzer 1981:45). Both types are compatible with various ordering sources. In terms of modal forces, Kratzer (1991) defines the notion of necessity, good possibility, possibility, at least as good possibility, better possibility, weak necessity and slight possibility (Kratzer 1991:644).

In Kratzer (1981), a necessity is defined the following way.

Definition 3.5 (Necessity)**.** *A proposition p is necessary in a world w with respect to a modal f and an ordering source g iff the following condition is satisfied:*
for all $u \in \cap f(w)$ there is a $v \in \cap f(w)$ such that $v \leq_{g(w)} u$ and for all $z \in \cap f(w)$: if $z \leq_{g(w)} v$, then $z \in p$.

'Human' necessity by Kratzer (1981=1991:644)

"*A proposition is a necessity if and only if it is true in all accessible worlds that come closest to the ideal world*" (Kratzer 1991:644).

A possibility is defined in terms of a necessity.

Definition 3.6 ('Human' possibility as in Kratzer (1981))**.** *A proposition p is a possibility in a world w with respect to a modal base f and an ordering source g iff $\neg p$ is not a necessity in w with respect to f and g.* *'Human' possibility by Kratzer (1981=1991:644)*

A proposition is a possibility if and only if its negation is not a necessity. So, if the proposition is not false in all the world that come to the closest to the ideal, then there is at least one world within the most 'ideal' worlds in which the proposition is true. It is easy to see that these definitions are different from the 'standard' definitions because it is no longer required for a necessity proposition to be true in every accessible world. It is sufficient that it is true in the worlds that come closest to the ideal, which makes necessity weaker. Every proposition that is true in all the accessible worlds is true in the best ranked accessible worlds. However, this new definition clearly has an effect on the strength of a possibility as well. In this new set of definitions, a proposition is a possibility iff its negation is not true in at least one possible world that comes closest to the ideal. So, it is no longer sufficient that we can find some possible world in which the proposition is true, we have to find one among the closest worlds to the ideal. The existence of an ordering source makes it possible to define graded modality. For the purpose of this dissertation, it is sufficient to discuss the basics of Kratzer's ideas and we will not go into

details regarding graded modality. The curious reader can consult Kratzer (1981, 1991) for more details.

Let us consider an example taken from Portner (2009:71-72).

(23) a. *You must have the flu.*

b. $\{w$: for all $u \in \cap f(w)$, there is a $v \in \cap f(w)$ such that:
(i) $v \leq_{g(w)} u$, *and*
(ii) for all $z \in \cap f(w)$: If $z \leq_{g(w)} v$, then $z \in [[\text{You have the flu}]]^{c,f,g}$

Portner (2009:71)

Modal base f (relevant facts which are beyond doubt):

- p_1: you have a fever,
- p_2: you have a cough,
- p_3: you did not get a flu shot.

Portner (2009:71)

Ordering source g (expectations that a doctor takes into consideration which are not beyond doubt):

- p_4: flu leads to fever,
- p_5: many people from the town are suffering from flu right now,
- p_6: people suffering from the same symptoms in the same town have the same disease.

Portner (2009:71)

Among those worlds in which all the facts known (by the speaker/the doctor) hold, according to the doctor's expectations, those worlds are ranked the highest in which you have the flu. *Must* has a modal force of necessity, an epistemic modal base and a doxastic (or stereotypical) modal base. Obviously, the statement '*You must have the flu*' is weaker than the statement '*You have the flu*', because in the case of the former statement, the scope proposition is subject to doubt (pornter 2009:72). The doctor has inferred it and he/she does not have direct evidence (e.g. he/she sees the results of your flu test) that would support the truth of the proposition.

3.2. **Important notions and definitions.** The purpose of this subchapter is to introduce and define important concepts that will play a crucial part later in the dissertation.

In order to be able to discuss the interaction of future-time reference and modality, one must define two very important notions: the temporal perspective and the temporal orientation. When talking about modals, these two temporal relations need to be specified. According to Condoravdi (2002), the temporal perspective (TP) is the relation between the time of modal evaluation (MOD-T) and the time of utterance (UT-T).

Definition 3.7 (Temporal Perspective)**.** $\Re(UT\text{-}T, MOD\text{-}T)$

The temporal orientation (TO) is the relation between the time of eventuality described ($EV\text{-}T$) and the time of modal evaluation ($MOD\text{-}T$).

Definition 3.8 (Temporal Orientation)**.** $\Re(MOD\text{-}T, EV\text{-}T)$

The author considers the following example and she argues that the ambiguity of *might have* is scopal in nature.

(24) a. He may/might have (already) won the game (# but he did not). (*epistemic reading*, backward-shifting, PRES(MAY(PERF(he win))))

b. At that point he might (still) have won the game be he did not in the end. (*counterfactual reading*, future possibility in the past, backward-then-forward-shifting, PRES(PERF(MIGHT(FUT(he win)))))

Condoravdi (2002:73)

In the case of the epistemic reading, the perspective is present (since '*his winning the game*' is compatible with the speakers knowledge at present), but the event-time is/was in the past. In the case of the counterfactual reading, the perspective is past (at a certain point in the past it was (still) possible for him to win), and the winning event is/was in the future of the past reference-time.

According to Condoravdi (2002), in the case of present tense modals, the temporal orientation depends on eventive or stative nature of the predicate.

(25) a. He must get sick. (event, *future Temporal Orientation*)

b. He must be sick. (state, *present Temporal Orientation*)

Condoravdi (2002:65)

In order to give the translation of tense, the perfect and most importantly, modals, Condoravdi (2002) gives the definition of what it means for an EVENT/STATE to be AT a time. The idea is that it is different for a state (25a) to be at a time than for an event (25b). She defines the so-called AT relation.

According to Condoravdi (2002:70), "$AT(P, t, w)$ *means that the property* P *is instantiated in world* w *at time* t*, and* $\tau(e)$ *is the run-time of the event*".

Definition 3.9 (AT relation by Condoravdi (2002:70))**.**

$$AT(P,t,w) = \begin{cases} \exists e[P(w,e) \wedge \tau(e) \subseteq t] & \textit{if } P \textit{ is eventive;} \\ \exists e[P(w,e) \wedge \tau(e) \circ t] & \textit{if } P \textit{ is static;} \\ P(w)(t) & \textit{if } P \textit{ is temporal.} \end{cases}$$

For an *event* to be included (noted by $\subseteq$) within $[t, \infty)$, it has to be in the *future*. For a *state* to overlap (noted by $\circ$) $[t, \infty)$, the only restriction is that it is not completely in the past. A property of time is instantiated in w at t iff P holds of t in w.

As it has been mentioned, Krazter (1981, 1991) distinguishes two types of modal bases: the circumstantial and the epistemic one. Condoravdi (2002) defines another type of modal base, the metaphysical one. This is also called a totally realistic circumstantial one, and it is argued that it is just a sub-type of circumstantial modal bases (see in Werner (2006)). Let us consider a similar example to (25a).

(26) Peter might get/have the flu.

The metaphysical reading of (26) has to do with what our world may turn out to be in the future given that at the present, there are many options. Therefore, we can say that the issue has not been settled up to a given time. An example for a situation that would trigger the metaphysical reading is the following: "*Peter is ill 5 times a year on average. He is not ill now, but it is an option that he gets ill in the near future.*". These are objective facts about our world at present, and none of them contradicts the possibility of the event.

The epistemic reading of (26) has to do with the speaker's knowledge, and *his getting the flu* is compatible with it. In this case, the issue is settled, but the speaker does not know which way it is settled. An example for a situation that would trigger the metaphysical reading is the following: "*Peter spent a whole day with people who have the flu two days ago, therefore he tested for the flu yesterday. The speaker has not heard anything about Peter's condition or test results.*" In this case, the issue is settled but the speaker does not know how.

Before we move on, let us consider a Hungarian example.

(27) a. *Context 1*: Peter has a chance of becoming a champion. (He is not a champion now.)

Péter bajnok lehet.
peter champion may.be
'Peter might become a champion.'

b. *Context 2*: Peter was absent from school, which is unusual of him.

Péter beteg lehet.
peter ill may.be
'Peter might be ill.'

In the case of the first context, we talk about the future. At the moment of speaking, it is possible that Peter will become a champion. We can think of this as an 'open question' that nobody knows the answer for at the moment. This is objective and does not depend on the speaker's knowledge, just on objective facts of the actual world.[4] The second

[4]Similarly, in the case of the second situation, we could create a context in which the sentence would get a different (metaphysical) interpretation. For example, we could say that there is a world in which there exists a very dangerous illness (the only illness). Peter has not received the vaccine that would protect him, so he still could get the illness, (while those who has cannot).

context is different, the speaker talks about something that is clearly decided (and the speaker is aware of its decidedness). Our world is already in a state in which Peter is either ill or not but the speaker does not know which way it is decided. For contextually known facts, the speaker comes to the conclusion that it is possible that Peter is ill.

Intuitively, *settledness* means that the truth or falsity of a state of affairs have already been decided, but the speaker might not know which way.[5] A natural question to ask is how we can define *settledness* more precisely using formal tools.

Let us start with the definition of historical equivalence relations. The basic idea is that we have equivalence classes of worlds with identical pasts up to and including a given time t, but these worlds possibly have distinct futures. At any given time, our world has multiple copies with the same past but potentially different future. The reason why it is called the branching-future model is the idea that new worlds branch from our world with different (potentially) futures every moment. In Thomason (1984)'s $T \times W$ world-time modal, time is defined as a linearly-ordered set of moments T and there is a three-place relation $\simeq$ on $T \times W \times W$ called *the historical equivalence relation.*

Definition 3.10 (Historical equivalence relation)**.** *1. for all t, $\simeq_t$ is an equivalence relation (reflexive, transitive and symmetric)*
2. for any $w, w' \in W$ and $t, t' \in T$, if $w \simeq_t w'$ and $t' < t$, then $w \simeq_{t'} w'$ (a monotonicity condition)

Condoravdi (2002:80)

According to the first point, worlds that have identical pasts form equivalence classes. A relation needs to have three properties (reflexive, transitive and symmetric) in order to be an equivalence relation and be able to provide a partition. Intuitively, these properties mean the followings.

- reflexive: For every world in the 'class', it is true that its past is identical to its own past. Therefore, we can say that every world is in relation with itself. (Here, we would like to note that, it is obviously true that every world has an identical past to itself, so this property is trivially true.)
- transitive: If a world (w) has an identical past to another world (w') and w' has an identical past to another world that can be distinct from the first one (w''), then w has the same past as w''.
- symmetric: If a world (w) has identical past to (w'), then it is true that w' has an identical past to w.

[5]It can also be discussed what can be considered to be decided in our world. It can be argued that everthing is predetermined, therefore, talking about the future always involves epistemic modality. However, when talking about decidedness, we talk about what the speaker considers to be decided.

The monotonicity condition (intuitively) states that if we find any two worlds that are in the same equivalence class at any time (t) and if another time (t') precedes t in time, then it is guaranteed that those two worlds were in the same equivalence class at t' too. A trivial consequence of the monotonicity condition is that as time advances, the set of metaphysical alternatives to any world decreases, because "*at any given time fewer things are possible than were before that time*" (Condoravdi 2002:81). One might think that this statement is far from the truth, but if we think about what is objectively possible (and not what we believe to be possible), we can easily realize that as time goes by less and less things are possible.

"*Historical necessity involves quantification over worlds that are historical alternatives of a given world at a given time*" (Condoravdi 2002:82). In the case of metaphysical modality, the modal base consists of historical alternatives of a given world at a given time.

Definition 3.11 (Modal base of metaphysical modality)**.** $MB(w,t) = \{w' : w \simeq_t w'\}$.

Epistemic states are understood as unions of sets of equivalence classes of worlds with respect to a given time t (Condoravdi 2002:82). Going back to our original example (27b), according to what is objectively true, it can be easily decided whether Peter is ill or not. However, if we take somebody's knowledge state, a person who does not know whether Peter is ill or not, for him/her both types of worlds (in which Peter is ill and in which Peter is not ill) are possible. It is easy to see that one equivalence class resolves an issue uniformly (Peter is ill or not), but different equivalence classes might resolve it differently. His/her knowledge state consists of the union of equivalence classes (contains classes in which Peter is ill and also contains classes in which he is not).

Now that we have every 'tool', we can know define *settledness* formally. We introduce Condoravdi's (2002) definition. The basic idea of the concept is that we take common grounds (consisting of a set of propositions that interlocutors consider to be common knowledge shared by the participants at t) to consist of unions of equivalence classes of worlds determined by $\simeq_{t_0}$, where t_0 is the utterance time. "*The context set (cs) is a set of worlds compatible with the propositions in the common ground at t*" (Condoravdi 2002:83). For a context set to satisfy *settledness* with respect to P, the following condition has to hold.

Definition 3.12 (Settledness)**.** *P is settled for any world $w' \in cs$ at t and any w'' such that $w' \simeq_t w''$, $AT([t_0,\infty), w', P)$ iff $AT([t_0,\infty), w'', P)$.*

Condoravdi (2002:83)

"*Within each equivalence class the issue of the instantiation P has to be resolved uniformly but different equivalence classes may resolve it differently*" Condoravdi (2002:83).

Condoravdi (2002) defines the diversity condition the following way.

Definition 3.13 (Diversity Condition)**.** *There is a w in the common ground (therefore in the context set) and $w', w'' \in MB(w,t)$ such that $AT([t,\infty), w', P) = 1$ and $AT([t,\infty), w'', P) = 0$.*

Condoravdi (2002:83)

A common ground satisfies the diversity condition if and only if it contains both P and not P worlds (P worlds are worlds in which P is true, while not P worlds are worlds in which P is false).

Werner (2006) proposes that all non-epistemic modals use a historical modal base, and these modals differ only in the choice of ordering source. These modals access histories that branch from our own past, while epistemic modals access a wider range of histories. He further argues that a modal with a metaphysical modal base can satisfy the diversity condition only with future orientation. So, if we restrict the modal base of a modal to a metaphysical one, that modal will be obligatorily future-oriented. If we know every relevant fact of our own world at a given time t, it is impossible to truthfully utter a modalized sentence that has a present or past orientation. You cannot say that '*Peter could be ill*' if you have seen that he is ill. We would like to note that here, we talk about temporal orientation and not about temporal perspective.

(28) At that point of championship, Hamilton might have still won the championship.

Here, the perspective is past, but the orientation is future. At that point in the past, it was still possible for him to win in the future of that past reference time.

In this subchapter of the dissertation, we defined what it means for an event or state to be at a given time. We described what we mean by the historical equivalence relation and how it is related to the metaphysical modal base. Having all the necessary 'tools', we defined what settledness is and the diversity condition. The last part was dedicated to the relationship of the various modal bases and the diversity condition.

In the next subsections, using the notations defined above, we precede to the discussion of the relation of future-time reference and modality in English.

However, before we do that, we briefly discuss alternative approach, the representionalist approach.

3.3. **Representationalist approach.** According to the rather 'traditional' approaches discussed so far, the meaning of a sentence can be represented in terms of *truth conditions*. Dynamic views, on the other hand, think of meaning as the capacity of the sentence to change the context, or in other words, a function which modifies the context. One of the most influential theories of all is Kamp (1981)'s Discourse Representation Theory (DRT).

Kamp (1981)'s main idea is that a discourse (which is a sequence of sentences uttered by the speaker) is interpreted in the context of a representation structure (DRS). DRSs are pairs that consist of discourse referents (U) and conditions (Con) (Kamp et al 2011:133).

Definition 3.14 (Discourse Representation Structure)**.** $\langle U, Con \rangle$

The universe collects the entities that are discussed in the discourse and the conditions "*express conditions (properties, relations) on those discourse entities*" (Kamp et al 2011:133). Let us consider the following example.

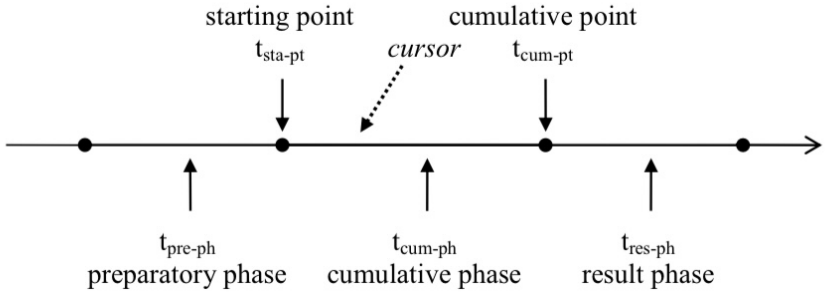
(29) A delegate arrived.
$\{\{x\}, \{delegate(x), arrive(x)\}$

Kamp et al (2011:133)

A delegate contributes the discourse referent x, while *arrive* contributes the (atomic) condition $arrive(x)$. For the purpose of this dissertation, it is not crucial for us to go into further details. However, it is important to continue the discussion with the definition of the temporal referents of a given sentence.

"*Due to representationalism, the temporal structure of sentences can be described by temporal referents*" (Farkas–Ohnmacht (2012:356)). Every sentence has a so called *cumulative phrase*, "*on which a system consisting of five temporal referents relies: we can refer to the starting point of this cumulative phase as well as its endpoint, the cumulative point*" (Farkas-Ohnmacht (2012:356)). Here, we would like to note that we will introduce Farkas-Ohnmact's (2012) model, which indeed relies on Kamp et al. (2011). The only difference between the models is that Farkas–Ohnmacht (2012:356-357) make the event structure symmetrical compared to Kamp et al., placing a 'preparatory phase' before the cumulative phase. The end point of this preparatory phrase is the same as the starting point of the cumulative phrase.

(30)



The temporal-extensional characterization of temporal structures (a system of five distinguished temporal referents).

Farkas-Ohnmacht (2012:357)

Kamp et. al. (2011) give an account of the difference between the progressive and the Present Perfect, assuming that most sentences can be understood as statements about a moment in time. If 'this moment in time' which is represented by the temporal cursor is in the cumulative phase of the event (e.g. *I am travelling*), then we are faced with a progressive sentence. However, if it is in the result phase, the Perfect should be used (e.g. *I have traveled home*) (Alberti–Ohnmacht (2005)). Farkas-Ohmacht (2012) give the following examples to demonstrate their system of five temporal referents.

(31) a. Péter 7.15-kor hazautazott.
Peter 7.15-at home.travel.PAST,3SG
traveled home at 7.15 pm. $t_{sta-pt} \longrightarrow$ 7.15

b. Péter 194 perc alatt hazautazott.
Peter 194 minutes under home.travel.PAST.3SG
He traveled home in 194 minutes. $t_{cum-ph} \longrightarrow$ 194 min.

c. Péter 10.29-re hazautazott.
Peter 10.29-SUB home.travel.PAST.3SG
He traveled home by 10.29 pm. $t_{cum-pt} \longrightarrow$ 10.29

d. Péter hazautazott egy hétre.
Peter home.travel.PAST.3SG a week.for
He traveled home for a week. (Pustejovsky 1995) $t_{res-ph} \longrightarrow$ 7 days

e. Péter (akkor már) két órája hazautazófélben
Peter (then already) two hours.POSS.3SG home.traveling.toward.in
volt.
be.PAST.3SG
He had already been about to travel home for two hours. $t_{pre-ph} \longrightarrow$ 2 hours

Farkas-Ohmacht (2012:356)

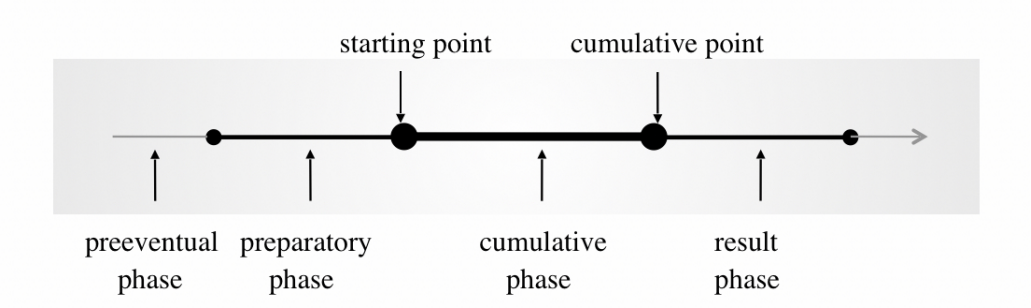
It is a natural question to ask whether the differences between the futurate and the future can (and how they can) be described in this model. In other words, if the stage that the eventuality is in can explain the choice of the speaker between the two (alone). Szeteli et al (2023), following Farkas–Ohnmacht (2012), argues that there are four phases of a *travelling home*-event. They demonstrate the differences between these phrases by giving both English and Hungarian examples.

- *preeventual phase*: *He will travel home.* / Haza fog utazni. 'home will travel.INF'
- *preparatory phase*: He is going/about to travel home. / Hazautazófélben van. 'home-traveling- towards-in'
- *cumulative phase*: He is traveling home. / Utazik haza. 'travel home' *result phase*: He has traveled home. / (Már) hazautazott. '(already) home-traveled'

Szeteli et al (2023)

In the case of plain non-past/futurate, it is suggested that the speaker considers that the event has already entered the preparation stage: *hazautazófélben van* 'home-traveling-towards-in'. In contrast, the sentence *haza fog utazni* 'home will travel.INF' assigns the present moment to the phase that precedes the preparatory phrase. It means that the event is not even in its preparatory phrase, but it is in a phrase that you can call preeventual.

(32)



General event structure.

Szeteli el al (2023)

The English '*I'm going home*' and the Hungarian '*Hazautazom*', the English '*I'm traveling home*' and the Hungarian '*Utazom haza*', and the English '*I'm baptized*' or the Hungarian '*Meg vagyok keresztelve*' are all in the non-past. Therefore, according to this conceptualization, the use of the non-past can correspond to three phrases of this complex event structure (the preparatory, the cummulative, and the result phrase). The question whether the use of the English *will* or the Hungarian *fog* strictly designates that the event is in its preeventual phrase is interesting. Another exciting question to consider is whether the choice of the speaker between the non-past (futurate) and *will* or *fog* depends only on his/her (rather subjective) judgement on which phrase (preeventual or preparatory) the event is in currently. We will revisit this question in section 4.1.5.

Before we turn to the discussion of the Hungarian data, we find it important to discuss some of the most influential views on the English futurate and *will*. We start with the literature on the English futurates (the future-referring uses of the non-past), then, we discuss different views on the English future auxiliary *will*. We take sides in the argument, and argue for the correctness of the modal analysis.

3.4. **The modal analysis of future-time reference.** It is debated in the literature whether future-referring morphemes should be analyzed as tense or as modal markers. Under the tense analysis, they would locate an event in time, while under the modal analysis, they would quantify over possible worlds. Since the future is not yet determined, when you talk about it, one must quantify over future parts of histories, which are indeed worlds (Portner 2009:236). From this perspective, one could argue that future-referring

morphemes are clearly modal markers. However, this question is far from trivial, as it will be shown in the following subsection. For demonstration and bases of comparison, we will discuss the use of the English futurate (the future-referring uses of the non-past) and *will*.

3.4.1. *Futurates in English.* There have been a lot of works on how English expresses future-time reference and there are multiple different analyses on the English futurates and *will* in the literature. This chapter of the dissertation is dedicated to a short review of some of these works. In order to be able to discuss the similarities and differences between English and Hungarian, it is crucial to briefly introduce the English data. First, we discuss the use of the English futurates, then we focus on the semantics of the English future auxiliary *will*.

There are different ways to refer to the future in English. Copley (2009) distinguishes two different categories, the FUTURES and FUTURATES. Her distinction is based on the question whether future-time reference is overtly marked or not.

(33) FUTURES

a. I'm going to go home. *be going to*

b. I will go home. *will*

(34) FUTURATES

a. I go home tomorrow. *plain future*

b. I'm going home tomorrow. *progressive future*

At first, the focus is on the English futurates. Leech (1971:65) argues that whenever a speaker uses the futurate, s/he speaks about the future with the same certainty as s/he speaks about the present or the past. According to Copley (2009), the use of the futurates is only felicitous if the event is planned, scheduled, or (believed to be) decided at the time of the utterance. In her later works, Copley (2014:75) makes the following distinction: the use of the plain future is connected to a plan, a habit or a state that is rather permanent, while the use of the progressive future is "*more temporary or episodic*". Kaufmann (2005:15) claims that all non-modalized sentences contain a null necessity modal that lacks an ordering source and "*are evaluated against, or predicted of, metaphysical or doxastic modal bases"*. The author further argues that the truth condition of non-modalized sentences involves "*settledness or belief, not merely truth simpliciter*" (Kaufmann 2005:15). If a proposition is not settled, it cannot be known by the speaker. Kaufmann (2005), for the sake of uniformity, argues that all non-modalized sentences satisfy the so-called *certainty condition* (CC), however, it is only prominent whenever we talk about the future. At this point, the reader might wonder how we can possibly be certain about a future

event. Throughout this dissertation, it has been argued that the future is uncertain. According to Kaufmann, the sources of this certainty that he mentions can be divided into three major categories.

- *The truth of a sentence can be "deduced from past and present facts together with natural laws" (Kaufmann 2005:20).*

  (35) The sun sets at 8:39 tomorrow. (example from Goodman (1973))

- *The speaker talks about a schedule.* According to Rullmann et al (2022), a schedule is a set of answers to a multiple wh-question about a future event. A schedule must be pre-determined, and non-trivial.[6]

  (36) The train leaves at 7:30 tomorrow morning, but it won't/* but it doesn't.
  'The train is scheduled to leave at 7:30 tomorrow morning, but according to what I know about the world it is very unlikely it will.'
  pre-determined and informative

  The authors also argue that (36) can be continued as '*but it won't*', but it cannot be continued as '*but it doesn't*'. A proposition can be true when evaluated against one modal base (the schedule),[7] but it can be false when it is evaluated against another (e.g. facts known by the people). As it has been discussed in details, the '*in view of*' phrase can define the conversational backgrounds (modal base and ordering source). The '*in view of*' phrase can be completed by '*the schedule*' in the first case, and by '*what I know about the world*' in the second.
- 'Almighty'– which is only available for people with foreknowledge (discussed by Edgington (1997) and Kaufmann (2005)).

  (37) It rains tomorrow.

According to Kaufmann (2005), the difference in acceptability between sentences like (38a) and (38b) is due to "*the difference in the ease with which a suitable interpretation can be found, under which the sentence is presumed decided*" (Kaufmann 2005:21).

(38) a. We play against the Barcelona tonight.
  b. # We win tonight./ # We are winning tonight.

At this point of the discussion, it is very easy to see how important decidedness in the case of the English futurates is. One cannot make a prediction about the future under

[6]According to the authors, the previous example (35) can also be an answer to a naturally determined schedule.

[7]Obviously, this argument only holds if we assume that a covert modal operator is present in the sentences. If not, it is still possible to say that the original sentence contains a covert phrase '*according to the schedule*' and the sentence is interpreted as follows: '*according to the schedule p, but according to what I know is true at the time of the utterance, p is unlikely*' (see in Rullmann et al).

uncertainty using the English futurates. Since the future is indeed uncertain, and very frequently involves inference and prediction, the English futurates are rarely felicitous, only under those very strict conditions that are discussed above. The plain future is more restricted in use than the progressive, but neither can be used if the event is unplanned, not scheduled, and undecided.

As opposed to them, the use of the auxiliary *will* does not presume that the proposition is settled, and lacks the certainty condition. Therefore, it is easy to see that a *will*-statement is semantically weaker, and can be used to express various future-oriented readings that are impossible to express using the English futurates. In the next subsection, we discuss the various existing views on the English *will*. We address the controversial question whether *will* should be analyzed as a tense or a modal marker.

3.4.2. *Is the English will a tense or a modal marker?* As it has been discussed, futurity and modality are very much related, and this relation is the most prominent in the case of future markers. The English *will* is an auxiliary, and it is frequently used to express meanings similar to modal markers. The following examples show that *will* does have meanings that a simple, temporal analysis cannot possibly account for.

(39) a. Peter will have arrived home by now. *epistemic/inferential*
b. Pat will be sleeping by now. *epistemic/inferential* (Enç 1996)
c. Certain drugs will improve the condition. *generic* (Palmer 1986:216)

The most influential theories argue that *will* is a combination of two morphemes, the abstract verbal morpheme WOLL and the present tense, while *would* is the combination of the past tense and this abstract morpheme WOLL. Condoravdi (2003), Kaufmann (2005) analyze this abstract verbal operator as a modal operator, while Ogihara (1996) and Abusch (1998) as a tense operator. Following Abusch, Kissine (2008) argues for the correctness of the tense analysis.[8].

[8]He considers examples like (40)

(40) ? It is not the case that Mary will come and (for all we know) it is possible$_{[epistemic]}$ that she will come.

Kissine (2008:134)

If we assume that *will* expresses universal quantification over possible worlds, there are worlds in which both parts of the sentence above are true. In modal logic, we usually denote the necessity operator by $\Box$, and the possibility operator by $\diamond$. So we can write (40) in the form of $\neg\Box p \wedge \diamond\Box p$. However, in this case, the only way to derive (40)'s inconsistency is assuming that $\Box p \Longleftrightarrow \diamond\Box p$. The reason why it is the only way is that p and $\neg p$ can never be true at the same time, so it is inconsistent. Therefore, what is "behind" the $\neg$ operator must be equivalant to what is "on the other side' of and ($\wedge$ operator). However, it would mean that (41a) and (41b) are equivalent, which is obviously not the case. So its inconsistency cannot be derived within the model. Therefore, Kissine comes to the conclusion that *will* does not express universal quantification over possible worlds.

(41) a. Mary will come.
b. It is possible that Mary will come.

Klecha (2014) responds to Kissine's argument, and points out the modal-like properties of *will*. The most influential out of these properties is *the modal subordination* and he argues that it diagnoses modality. According to him, modal subordination is never available in the absence of an overt modal operator.

(42) a. If Martina went to New York, she bought lots. She had fun. ≠ If Martina went to New York, she bought lots and had fun.

b. If Martina goes to New York, she will buy lots. She will have fun. = If Martina goes to New York, she will buy lots and have fun.

Klecha (2014:450)

If *will* were not a modal operator, the modal subordination would not be possible.

Condoravdi (2002, 2003) argues that *will* and *would* are not tenses, but temporal operators shifting the time of the evaluation forward. However, the real question is if they are modal operators, too. The fact that there is a temporal operator in their analysis tells nothing about their status, in fact, the need for a modal component decides the matter (also explicitly argued by Klecha 2014). Condoravdi (2002) takes the '*perspective set by tense, time of instantiation set by modal*' approach. Under this approach, modals appear in the scope of tense, the temporal perspective of a modal is determined by tense, and the time of instantiation is determined by the modal or other temporal operators (e.g. aspectual operators) (Condoravdi 2002:65). As it has been discussed in the previous subchapter, a modal base (MB) is a function from world-time pairs to sets of worlds (see Kratzer (1981), Kratzer (1991)). If the MB is epistemic, it contains the set of worlds compatible with the speaker's knowledge of the actual world w at t. If it is a metaphysical modal base, it consists of the historical alternatives of w at t. Historical alternatives of our world are worlds that are identical to ours up to the time of speaking and may be distinct after that. The author defines WOLL in the following way. It is important to note that she does not involve graded modality (so there is no ordering source involved) and she takes the modal base (MB) – the only conversational background – as a function fixed by the context of use.

(43) $WOLL_{MB} : \lambda P \lambda w \lambda t. \forall w' [w' \in MB(w,t) \longrightarrow AT([t, \infty), w', P)]$

Condoravdi (2002:71)

Kissine further argues that there is a covert epistemic modal operator in sentences like (39), and in all root sentences that do not contain an overt modal operator. Kissine's argument was influential, and many authors responded to it. One of them is Klecha (2014), who provides examples that Kissine's temporal analysis cannot account for. He also explicitly argues for the falsity of Kissine's argument. The main point he makes is that the epistemically and historically accessible worlds are distinct from each other. Therefore, it is possible to provide a model in which $\diamond_{[epistemic]} \Box_{[historical]} p$ is true and $\Box_{[historical]} p$ is false. He points out that using the historical accessibility does not lead to unwelcomed empirical predictions (see Klecha (2014) for details).

The abstract verbal operator, WOLL expresses universal quantification over possible worlds, and there is also a temporal component in its analysis.[9] Along with Condoravdi (2002, 2003), Kaufmann (2005) also attempts to give an adequate analysis of WOLL. He argues that by using *will*, speakers can make a genuine prediction about the future, which makes *will*-sentences semantically weaker than futurates.

(44) a. It will rain tomorrow.
b. ?It rains tomorrow.

Kaufmann (2005:23)

He goes on by arguing that *will* is weaker than necessity and uses Kratzer's (1981) work on graded modality. "*The idea is that in a sentence like (44a), not all historically or doxastically accessible indices are relevant for the truth of the sentence, but only those which satisfy certain defaults or 'normalcy' assumptions*" Kaufmann (2005:23). For the purpose of this dissertation, it is not necessary to discuss his analysis of WOLL, it is sufficient to mention that it differs from his own analysis of English futurates. In the previous section, it was discussed that he suggests a null necessity modal to be present in the case of the English futurates, however, he argued that that modal does not have an ordering source, so it quantifies over all the worlds in the modal base, while *will* does not. He argues that $PRES(WOLL(p))$ is not only weaker than $PRES(\Box(p))$ (where $\Box$ is the null necessity modal), but the latter is so strong that it is rarely true, just under very special circumstances.[10]

At this point we can argue for two main views:

- When we use the English futurates (especially the plain futurate), we talk about an (existing) plan or schedule. Under this analysis, the reference time is not the running-time of the event, but the running-time of the schedule/plan (Rulmann et al (2022)). So, by using the English futurates, one talks about the present and not the future. Therefore, it is not reasonable to give them a modal analysis. As opposed to them, by using the English *will*, one can talk about the uncertain future, which involves quantification over possible worlds. So, it is a modal marker that has a modal base, but not necessarily an ordering source (Condoravdi (2002)).
- The English (plain) futurates presuppose the presence of a null necessity modal. This null necessity modal is so strong that it does not have an ordering source.

[9]Here, I would like to note that according to Werner (2006), the temporal properties of *will* can be derived another way. If you restrict the modal base of *will* to a metaphysical one, the future-oriented nature of *will* follows from the fact that a metaphysical modal base satisfies the diversity condition only with future orientation. However, we strongly agree with those authors who claim that *will* is always a modal operator, although there is a need for a temporal component in its analysis.

[10]The circumstances that allow the use of the plain futurate are discussed in detail in the previous section. The use of the progressive futurate is also mentioned. The curious reader can consult Copley (2009) and Rulmann et al (2022) for more details.

Therefore, it is much too strong for future-time reference in the majority of the cases (since the future is indeed uncertain). As opposed to them, the English *will* is a modal that has both a modal base and an ordering source. By using *will*, one can make a genuine prediction, because it is much weaker than the non-past (Kaufmann (2005)).

We strongly agree with Condoravdi (2002, 2003) who argues for the modal analysis of *will*. She considers *will* to be a modal auxiliary that has no restriction on its modal base. She further argues for the need for a temporal component in its formal analysis. To supplement Condoravdi's claim, we do agree with Kaufmann (2005) who emphasizes the importance of an ordering source in WOLL's formal analysis. Regarding the English (plain) futurates, as it is argued by Rulmann et al. (2022), the two analyses are compatible with each other, since "*one could claim that the propositions entailed by the schedule provide the modal base for a covert modal in plain futurates*" (Rulmann et al (2022)).

Before we move on to the discussion of the Hungarian data, one theory that could be relevant in the discussion of the differences between the English and the Hungarian data needs to be discussed. In 3.3., the representionalist approach is talked about. More specifically the idea that the temporal structure of a sentence can be described by temporal referents. Overall, one can conclude that the main difference between the English futurates (the future-referring use of the non-past) and *will* has something to do with the phrase the eventuality is in. As it has been mentioned that it seems to be a plausible hypothesis that *will* (and other future markers) are used when the temporal cursor is in the preeventual phrase and the use of the futurate designates that the event is in the preparatory phrase (and the non-past can be used in almost all phrases except for the preeventual one). The cases when both of them seem to be possible are due to the subjective judgments of the speakers. Namely, it can be difficult to decide which phrase the eventuality is in.

(45) a. *preeventual*: # Peter is going home (eventually). / Peter will go home (eventually).

futurate / will

b. *preparatory*: Peter is going home tomorrow. / Peter will go home tomorrow.

futurate / will

c. *cumulative phrase*: Peter is at home / Peter will be at home by now.

non-past / will

d. *result phrase*: Peter has arrived.

non-past

There is a very important difference that one can notice: with the use of the non-past, the certainty condition (CC) always needs to be fulfilled. The same is not true for the sentences with *will*, in fact, the opposite holds. Almost all the utterances with *will* in (45)

are somehow uncertain. For example, whenever the speaker uses *will* in (45c), it indicates that s/he inferred the truth of the proposition, so they are certainly weaker than its non-past 'alternative'. This 'weakness' can come from the phrase the eventuality is in, but can also came from other sources (e.g. the speaker inferred the truth of the proposition). Moreover, (46) is felicitous even if the eventuality is not even in its preeventual state, but decided (and it is part of a schedule). So, as tempting as it is, we cannot solely explain the choice of the speaker between the futurate and *will* by looking at the stage the eventuaility is in. It seems that the certainity of the speaker is more important when deciding on this question (which somehow can connect to the phrase the eventuality is in).

(46) The train leaves on Monday at 7.p.m.

We started our discussion by saying that there is a long-standing debate whether future markers are tense or modal markers. In this subsection, we have seen that even if we argue for the correctness of the modal analysis, we need to answer important questions. Namely, what the difference between the use of explicit future markers (futures) and the non-past referring to the future (futurates) is. We introduced two hypotheses that can potentially hold cross-linguistically (or at least true for most languages). The first is by Copley (2009). In her influential work, she argues that the use of the futurate requires a plan or decidedness. According to Szeteli el al (2023) the difference can possibly be captured by simply knowing the (temoral) phrase the eventuality is in. We dedicate (the majority of) the next chapter to the discussion of the use of the Hungarian futurate and *fog* 'will'.

4. CHAPTER: Future markers in Hungarian

In chapter 1, the three main ways of referring to the future are introduced. We would like to start this chapter with a short reminder.

There are three main ways to refer to the future in Hungarian, and these are the future-referring use of the non-past (the futurate as in (47a)), the use of *fog* (FOG-*future* as in (47b)) and *majd* (MAJD-*future* as in (47c)).

(47) a. Péter **el**megy a boltba.
péter PRT.go.NPST.3SG the shop.to
'Peter will go to the shop.'

b. Péter el **fog** menni a boltba.
péter PRT will go.INF the shop.to
'Peter will go to the shop.'

c. Péter **majd** elmegy a boltba.
péter MAJD PRT.go.NPST.3SG the shop.to
'Peter will go to the shop.'

In this chapter, we will focus on the comparison of the above mentioned three alternatives of referring to the future and try to provide a comprehensible picture of their usage.

We start with the discussion of the Hungarian futurate and the FOG-*future*, and focus on the comparison of the futurate and the FOG-*future*. As it has been argued, they can be in competition with one another. As opposed to the previous views, we argue that the usage of the Hungarian futurate does not necessarily contradict Copley (2009)'s hypothesis that the use of the futurate requires decidedness. We argue that there are different kinds of decidedness and it is possible to consider an event to be decided even if it is decided "only' against someone's belief state. We provide a formal analysis of *fog*, and argue that there is no need for a restriction on its modal base. After providing the formal analysis of *fog*, we test the predictions of our analysis on both introspective data and tested examples. We also provide a comparison of previous accounts and our account. As opposed to the previously existing views (Palffy-Muhoray (2013, 2016), we argue that neither the aspectual properties of the predicate nor the phrase the eventuality is in can solely determine the choice of the speaker. The pilot questionnaire study presented here provides suggestive preliminary evidence for the claim that the type of the evidence the speaker has and the type of reasoning triggered by the context have an effect on the speaker's choice between the two structures. Temporal ambiguity does matter, but only if the futurate and *fog* are in real competition with one another, which is not the case if the speaker infers the proposition. After that we continue with the discussion of the MAJD-*future*. We focus on the change of the meaning components of *majd* through the history of the Hungarian language and how it obtained its current status. We will argue for the correctness of the claim that *majd* can hardly ever have a purely descriptive meaning when referring to the future. We consider looking at the diachronic development of *majd* particularly important in order to fully understand the various functions it has in present-day Hungarian. To supplement the discussion of *majd*, we write about the use of a few temporal adverbs that seem to have or had similar functions to *majd*. We argue that *majd* is fundamentally different from them and also from *fog* and the futurate. At the end of this chapter, we compare and contrast the use of *majd* to the proximity marker *most* 'now'. We argue that both *most* 'now' and *éppen* 'just' express relative proximity in Hungarian. The most important claim of the subchapter is that the proximity marker *most* picks out a subinterval from the interval ranging from the time of speaking to infinity, and the complement of this interval is the 'majd -range'. Since it is relative (and therefore determined by the frequency and the significance of the event) what we consider to be proximal, it is relative what is considered to be distal, too.

4.1. **The Hungarian futurate and the FOG-future.**

4.1.1. *The literature on the Hungarian futurate.* As it has already been discussed in Chapter 1, it is possible to use the non-past to refer to the future if the predicate is not stative.[11] The non-past can refer to the future under the following circumstances.

- The context is clear.

  (48) *Context: What are you going to do tomorrow?*
  Debrecenbe megyek.
  debrecen.to go.NPST.1SG
  'I'm going to Debrecen.'

- Temporal-frame adverbs referring to the future are used.

  (49) Holnap Debrecenbe megyek.
  tomorrow debrecen.to go.NPST.1SG
  'I'm going to Debrecen tomorrow.'

- When it is used with a telic predicate (Csató (1994), Palffy-Muhoray (2013, 2016)).

  (50) Elutazom Debrecenbe.
  PRT.travel.NPST.1SG debrecen.to
  'I will travel to Debrecen.'

Neither of the sentences above can be understood as ongoing (or as generic). It is clear that they are all future-referring.

In the previous chapter, the use of the English futurate(s) was discussed. It was argued that it requires a plan, therefore, it cannot be used if the eventuality is in its preeventual phase. As opposed to that, Palffy-Muhoray (2016) argues that the Hungarian futurate can be used in the case of unscheduled future predictions. Let us consider the following examples.

(51) a. #The Red Sox are defeating the Yankees tonight. Copley (2009:31)

b. Az argentinok ma este megnyerik a döntőt.
the argentin.PL today evening PRT.win.3PL the final.ACC
'Argentina will win the final tonight.'

The English example is not felicitous because it is very difficult to imagine a situation is which the event is decided (Kaufmann (2005)). (Obviously, it is possible (but not legal) to decide the outcome of a match). For the purpose of this dissertation, it is important that (51a) cannot be understood as a genuine prediction, while according to Palffy-Muhoray (2016), (51b) can. She compares both the non-past and *fog* to the English *will*, arguing that both are similar to *will*. She further argues that "*there is no evidence which would support that the non-past is only compatible with settled propositions, but there is also*

[11]With stative predicates, only the MAJD-*future* is possible. In this dissertation, it is argued that the MAJD-*future* is fundamentally different from the use of the non-past.

no evidence which would support that it involves a modal component" (Palffy-Muhoray 2016:89). She does not resolve the question whether the futurate should be analyzed as a tense or as a modal. To the best of my knowledge, nobody else has given a formal analysis for the Hungarian futurate.

At this point, a very important piece of data needs to be considered. In the case of the English futurate and *will*, Rulmann et al. (2022) tested (52a) and (52b). They came to the conclusion that (52a) is acceptable (slightly degraded), and the explicit mentioning of the schedule improves its acceptability to a nearly perfect level (52b). If we argue that both the Hungarian non-past and *fog* are very similar to the English *will*, it is difficult to explain the pattern that can be observed in the following examples.

(52) a. Context: *A knows that there is a big storm coming which will likely prevent an upcoming scheduled baseball game from happening. They say to B*:
The Red Sox play the Yankees tomorrow, but it probably won't happen.

b. According to the schedule, the Red Sox play the Yankees tomorrow, but it probably won't happen.

Rullman et al. (2022:203)

c. Context: *A knows that there is a big storm coming which will likely prevent an upcoming scheduled race from happening. They say to B*:

Holnap hétkor rajtol a verseny, de nem fog elrajtolni.
tomorrow seven.at start.NPST.3SG the race but not will.NPST.3SG PRT.start.INF
'The race starts at 7 tomorrow, but it won't start at seven.'

d. A kiírás szerint, holnap hétkor rajtol a verseny, de nem fog elrajtolni.
the schedule according.to tomorrow seven.at start.NPST.3SG the race but not will.NPST.3SG PRT.start.IN
'According to the schedule, the race starts at 7 tomorrow, but it won't start at seven.'

Other interesting fact is that the examples become much less acceptable (almost unacceptable) if we change the future in the second clause to the futurate.

(53) a. Context: *A knows that there is a big storm coming which will likely prevent an upcoming scheduled race from happening. They say to B:*

??Holnap hétkor rajtol a verseny, de nem rajtol el.
tomorrow seven.at start.NPST.3SG the race but not start.NPST.3SG PRT
'The race starts at 7 tomorrow, but it won't start at seven.'

b. ??A kiírás szerint, holnap hétkor rajtol a verseny,
the schedule according.to tomorrow seven.at start.NPST.3SG the race
de nem rajtol el.
but not start.NPST.3SG PRT
'According to the schedule, the race starts at 7 tomorrow, but it won't start at seven.'

Under the assumption that the Hungarian futurate and *fog* are not fundamentally different, and the choice of the speaker is only affected by the predicate itself (and other types of disambiguators used in the sentence), it is very difficult to explain why (52c) is acceptable,[12] and (52d) is perfect (just as in the case of the attested English examples). Moreover, if we change the future to the futurate as in (53a) and (53b), the senteces become unacceptable. If only the predicate type (and the diambiguator used) mattered, we would not expect these significant differences in acceptibility.

We will continue the comparison of the Hungarian futurate (NON-PAST-*future*) and *fog* (FOG-*future*) in the following subsections, but before we do that, we dedicate a section to the discussion of the literature on the Hungarian *fog*.

4.1.2. *The literature on fog.* Lotz (1962) refers to *fog* as a future-tense marker, Csató (1994) as a future morpheme that has the modal interpretation in certain contexts. She writes about the availability of the bouletic reading (54a), and argues that *fog* can be used inferentially (54b).

(54) a. Meg fogom védeni a disszertációmat.
PRT will.NPST.1SG defend.INF the dissertation.POSS.1SG.ACC
'I will defend my dissertation.'

b. Tegnap odatettem. Ott fogod megtalálni.
yesterday there.put.PST.1SG there will.NPST.2SG PRT.find.INF
'I put it there yesterday. You are going to find it there.'

Csató (1994:240)

Sherwood (2006) and Gulán and Varga (2018) discuss the historical development of *fog*. The structure was first documented in the 14th century (Jókai Codex) and was widespread by the 16th century (Sherwood 2006:39). Gulán and Varga (2018) mention that the grammaticalization of *fog* was very much in progress in the middle Hungarian period (1526-1770). They explicitly argue that *fog*, especially *fogott* 'fog.pst' and *fogna* 'fog.cond',[13] could express the speaker's uncertainty in middle Hungarian. They explain this with the fact that originally future-referring morphemes develop this (rather pragmatic) function when they do not necessarily refer to the future.

[12]The "*according to the schedule*"-phrase can be contextually silent.
[13]The past tense of *fog*, *fogott* is not possible in modern Hungarian. The same is true for the conditional form.

(55) E mostani kiszáradás leginkább a közelebb múlt ösznek és
this current PRT.drying.out mostly the nearer past fall.DAT and
télnek felettébb nedves vóltától fogott lenni.
winter.DAT very wet being.from will.PST.3SG be.INF
'This current drought is mainly the consequence of the wet nature of the past fall and winter.' HHC (year:1781)

We could easily find examples for the epistemic use of *fog* from middle Hungarian. In (56), the truth or falsity of the state of affairs is settled in w at t, but the speaker does not know how, s/he infers the truth of the scope proposition from a set of evidence. Therefore, we could conclude that *fog* could easily have a present temporal orientation in middle Hungarian.

(56) a. Én valóban gondolkozom hogy ebben a csalárdság **fog lenni**, mivel amint Kegyelmed itthonlétében Egyedit megskették, azt vallotta, hogy ő semmi jelekbül nem ismeri annak, s mikor az Kegyelmed kísérésbül viszajöttek, újobban reá kérdettek: mit felel azokra, akik négyen reá esküdtek, hogy szájbul hallották, hogy ismeri, nem ő, hanem más...
'I really think that this **must be/will be** a scam, because as soon as Egyedi was arrested during your Grace's stay at home, he testified that he did not know him, and when they came back after accompanying your Grace, he was asked again: what does he answer to those who, four of them, swore by him that they had heard from his mouth that he knew him, not he, but someone else ...' OMHC: (year: 1698)–1062915

b. Hanem mindenek felet, a csatornáival **fog lenni** nagyob baj. Ha valami mesterembert találtatnék vagy akadna főképpen német, küldene Kegyelmed, aki igazgatná a többit is, mert a csatornák miá az istálló, a konyhaház s a többi is elromlot úgyhogy építeni kel.
'But above everything, there **must be/will be** bigger problems with his channels. If I could find a handyman, or if there was one, mainly a German. Your Grace, please send him to me to manage the rest as well, because the chanels, and therefore, the barn, the kitchen house and the rest are also broken, so they have to be rebuilt.' OMHC: (year: 1705)–1062739

It is notable that the present-oriented epistemic reading was only possible if the infinitival form of the verb *to be* (*lenni*) followed the structure.[14] According to Gulán and Varga (2018), *fog lenni* was formed as the result of analogy, and there was no notable difference

[14]However, it is far from surprising. In Hungarian, the necessity verb *kell* 'must' can also have a present-oriented epistemic reading (57a), but it is available almost exclusively in the cases when it is followed by the infinitival form of *to be* (57b). Somehow the sentences become much more acceptable if the orientation is future (57c).

in the use of *lesz* 'be.fut' and *fog lenni* 'will be.inf'. The use of *lesz* is grammatical in standard Hungarian, however, one cannot say that *fog lenni* has died out. It remained in the language and it is still used by certain native speakers of Hungarian. It never replaced *lesz*, since *lesz* is shorter, and the variation seems to be stylistic in nature. Since we could not find a native speaker consultant who actively uses *fog lenni*, we examined examples collected from the HNC. It can be said that the epistemic use of *fog lenni* is rare, the newest example that we could find is the following.[15] It is from Áron Tamási's novel, *Abel Alone* (original title *Ábel a rengetegben*) that was first published in 1932.

(58) a. Valami irtó gyártmány fog lenni, annyit
something serious product will.NPST.3SG be.INF that.much.ACC
megállapítottam.
conclude.PST.1SG
'That must be/will be a serious product, I was able to come to this conclusion.'
HNC: doc#732

b. Valami irtó gyártmány lesz, annyit
something serious product will.be.NPST.3SG that.much.ACC
megállapítottam.
conclude.PST.1SG
'That must be/will be a serious product, I was able to come to this conclusion.'
present-day standard Hungarian

To the best of my knowledge, the only author who discussed the truth conditional meaning of *fog* in detail and gave a formal semantic analysis of it is Palffy-Muhoray (2013, 2016). She analyzes *fog* as a modal operator. She gives the following arguments to prove that *fog* is not a tense but a modal operator.

- It is optional for marking future-time reference in at least some kinds of utterances, while the past-tense marker is not (Palffy-Muhoray 2016:94).

(57) *Context: You know that John is usually at a certain place/goes on the same road each day/gets to someone's house at the same time.*

a. Jánosnak ott kell lennie.
János.DAT there must.NPST.3SG be.INF.3SG
'John must be there.'

b. ??Jánosnak ott/arra kell mennie.
János.DAT there must.NPST.3SG go.INF.3SG
'John must go this way.'

c. Jánosnak pár percen belül ott kell lennie / oda
János.DAT a.few minute.on within there must.NPST.3SG be.INF.3SG / PRT
kell érnie.
must.NPST.3SG reach.INF.3SG
'John must be there in a few minutes. / John must reach his destination in a few minutes.'

[15]However, it must be noted that we only examined a random sample of 100 examples.

- It takes the inflectional number and person ending associated with tensed verbs, therefore it is not a tense itself (Palffy-Muhoray 2016:95).
- She considers the possibility of *fog* being a prospective aspect marker. She rejects this option by assuming that the perspective time of *fog* cannot shift and is anchored to the utterance time. "*If fog were a prospective aspect marker, locating the reference time in the future of the event, we would expect such a sentence to be possible*" (Palffy-Muhoray 2013:390). She judges (59) unacceptable.

(59) Tegnap amikor hazajöttem, Attila azt mondta, hogy
yesterday when home.come.PST.1SG attila that say.PST.3SG that
valamit fog énekelni.
something.ACC will sing.INF
'Yesterday, when I got back home, Attila said he would sing something.'

Palffy-Muhuray (2013:390)

According to her, *fog*'s modal base must be restricted to a metaphysical one. She argues that the obligatorily future-referring nature of *fog* can be derived from its restricted modal base, since a modal with a metaphysical modal base can only satisfy the diversity condition with future-time reference. "*If fog could take other modal bases (e.g. epistemic), we would expect it to be compatible with other temporal references, and it is not*" (Palffy-Muhoray 2016:98).[16] Besides considering and rejecting examples in which *fog* could have an epistemic modal base, it is notable that the author mentions the possible present-oriented epistemic interpretation of *lesz* 'will be' without considering *fog lenni* 'will be.inf'. As we could see in example (58), it is reasonable to consider whether the existence of *lesz* 'blocks' *fog lenni*. She gives the following formal analysis of *fog*.

(61) The formal analysis of *fog* defined by Palffy-Muhoray (2016) – *to be revised*
$[\![fog]\!] = \lambda P \lambda t \lambda w. \forall w' [w' \in Best(MB_M)(OS)(w)(now) \longrightarrow AT(P, t, w')]$

In 61, MB is the modal base that can only be metaphysical in her view (denoted by MB_M), and OS is the ordering source (that can be bouletic or inertial). Therefore,

[16]She considers examples like (60) to prove her claim that *fog* cannot have an epistemic modal base.

(60) a. *Context: In a science class, a friend is not sure how to combine two liquids that will not mix. You tell her*:
Az olaj úszni fog a vízen.
the oil float.INF will.NPST.3SG the water.on
'The oil will float on water.'

b. *Context: I am exasperated with my girlfriend's predictability. I complain to a friend that I even know what she is wearing based on her mood and the weather*:
Télen Mari mindig zöld kabátot fog viselni.
winter.in mari always green coat.ACC will.NPST.3SG wear.INF
'In winter, Mary will (always) wear a green coat.'

Palffy-Muhoray (2016:97)

We find the examples in (60) acceptable in the given contexts.

"*Best(MB_M)(OS)(w)(now) denotes a set of worlds in the metaphysical modal base in w at the speech time (now) that are best ranked with respect to the ordering source (OS) in w at now*" (Palffy-Muhoray 2016:100). She uses Condoravdi (2002)'s *AT* relation, defined in the previous part of the dissertation, in (3.9).

The differences between Condoravdi's (2002) analysis of WOLL (43) and Palffy-Muhoray's (2016) analysis of *fog* are the following.

- Condoravdi (2002) does not involve graded modality (there is no ordering source considered in her analysis of WOLL). $\longleftrightarrow$ Palffy-Muhoray (2016) argues that both a modal base and an ordering source are involved in *fog*'s interpretation.
- Condoravdi does not restrict WOLL's modal base. $\longleftrightarrow$ Palffy-Muhoray restricts *fog*'s modal base to a metaphysical one.
- Condoravdi argues that WOLL's contribution is two-fold, involving a modal and a temporal component. $\longleftrightarrow$ Palffy-Muhoray argues that the contribution of *fog* is purely modal having only a metaphysical modal base, so the future temporal orientation is a consequence of its narrowly specified modal base.
- Condoravdi argues that the perspective time of WOLL can shift and is not anchored to the utterance time. $\longleftrightarrow$ Palffy-Muhoray (2016) argues that the perspective time of *fog* cannot shift and is anchored to the utterance time.

After reviewing the findings of the literature on the NON-PAST-*future* and the FOG-*future*, it is a natural question to ask what affects their distribution and how the speakers choose between the two. In the next section, we briefly review the literature on this topic. We focus on Palffy-Muhoray's (2016) account and its predictions.

4.1.3. *The futurate and fog in the literature.* Palffy-Muhoray (2016) argues that *fog* and the Hungarian futurate form a privative dyad, $<fog, npst>$, in which *fog* is the stronger alternative. They both pick out an interval and *fog*'s interval is a subset of the one picked out by the non-past. Therefore, *fog* asymmetrically entails the non-past. As it has been shown previously, with a stative predicate only the use of *fog* can convey future-time reference. Palffy-Muhoray (2016) explains this phenomenon through the maxim of Quantity (Grice 1975, 1989), which (roughly) dictates that whenever speakers are in the position to use the stronger alternative, they should do so (Palffy-Muhoray 2016:105). If the speaker uses the non-past, this implies that the *fog*-version is not true.

In sentences containing dynamic predicates, both the NON-PAST- and FOG-*future* can be used to express future-time reference. "*However, speakers exhibit some preferences for the non-past over fog, and vice versa, depending on the lexical aspect of the predicate involved*" Palffy-Muhoray (2016:110). The durativity and the telicity of the predicate matter. She argues that when clarity is not in question, speakers tend to choose the simpler alternative, which is the non-past (they prioritize the maxim of Manner over

Quantity). Accomplishment predicates are almost always telic, so a non-past sentence with an accomplishment predicate is generally interpreted as future-referring even without temporal frame adverbs or any additional contextual clues. Therefore, she argues that there should be a strong preference for the non-past over *fog* in this case. According to Palffy-Muhoray (2016:110), "*with achievement predicates the event can hold at the speech time itself, so a non-past sentence containing an achievement predicate is frequently temporally ambiguous*". Therefore, the use of a disambiguator device is inevitable. In the case of activity predicates, "*the wide range of readings associated with non-past sentences containing activity predicates suggests that speakers may prefer fog to express future reference in any context in which the intended reading of a non-past sentence might be unclear*" (Palffy-Muhoray 2016:115).

Palffy-Muhoray (2013) examined a variety of texts and categorized 152 instances in which either *fog* or the non-past was used to refer to the future. 51 out of these sentences contained the futurate, and the futurate was used 84% of the time with a telic predicate, and only 16% of the sentences contained an atelic one. 101 sentences contained *fog*, and it was used in 37% of the utterances with a telic predicate, and in 63% with an atelic one (Palffy-Muhoray 2013:144). The author takes this to support her claim that the non-past is very frequently used with telic predicates. However, one cannot ignore the relatively high frequency of *fog* with a telic predicate (almost 40%). What one can infer from the data is that out of the 152 sentences 80 were telic and 72 atelic. Out of the 80 telic sentences 43 (54%) contained the non-past and 37 (46%) contained *fog*. This distribution seems to contradict the idea that aspect alone can determine the choice of the speaker. However, it seems to be true that aspectual properties matter, and it cannot be accidental that 84% of the non-past sentences were telic. Palffy-Muhoray (2016) explains the data by arguing that *fog* can be used in sentences in which the predicate alone disambiguates the temporal reference for emphatic purposes. Namely, *fog* is used whenever the speakers wants to emphasize futurity. However, this point remains speculative and the author never specifies how this 'emphasizing function' would change the formal analysis of the structure.

In the following section, it is proposed that the relatively high proportion of *fog* with telic predicates and the pattern observed in (52) cannot only be explained by the nature of the predicate, but can and must be explained by the semantics of *fog*.

4.1.4. *The modal analysis of fog.* As it has been discussed in 4.1.1., in the case of *fog*, the availability of the bouletic reading is not disputed in the literature, and it has been argued that it can be used inferentially (Csató 1994). Therefore, it is clear that there are some modal components in its meaning. The following questions arise: (i) whether *fog* is purely temporal, and the modal component is contributed by a null modal operator

that is present whenever *fog* has a reading similar to modal operators, (ii) whether the contribution of *fog* is purely modal, having only a metaphysical modal base, in which case the future temporal orientation is a consequence of its narrowly specified modal base, or (iii) whether its contribution is two-fold, involving a modal and a temporal component. In this section, it is argued that *fog* itself is a modal operator, by applying the modal subordination test proposed in Klecha (2014). In order to disprove the view presented in (ii), it is important to show that *fog* does not only have a metaphysical modal base, but is also compatible with an epistemic one. In this section, introspective data are presented to support the claim that *fog*'s modal base is not restricted, and in fact it can be epistemic. However, this result has some notable consequences. First, if we dispute the view described in (ii), the obligatorily future-oriented nature of *fog* will not follow from the nature of its modal base. Therefore, a temporal component should be included in its formal analysis, making its contribution two-fold as demonstrated in (iii). Another interesting question that can follow from analyzing the contribution of *fog* as two-folded is whether the temporal argument of *fog* should be fixed by semantic tense or it is obligatorily anchored to the utterance time. We argue that *fog* can have the future-in-the-past reading, which resolves this issue and provides evidence for the claim that the perspective time of *fog* can shift. Considering all these, a formal semantic analysis will be proposed, which can account for the following facts: *fog* can have an epistemic modal base, and its perspective time can shift.

In the first part of this section, we show that *fog* is not a purely temporal operator. We show that *fog*'s use and distribution are fundamentally different from the one of the Hungarian past tense. One very important difference is that past tense morphology is mostly obligatory in main clauses in past-referring utterances in Hungarian, while future-time reference can usually be expressed by the non-past (alone or with additional disambiguators), and *fog* is rarely obligatory.[17] Moreover, if *fog* were a tense marker and it occupied a position in the tense head, it would be difficult to explain how it gets its present tense verb morphology (Palffy-Muhoray 2016:95). Therefore, it is quite easy to see that the uses and the distribution of Hungarian tenses (the past and the non-past) and *fog* are fundamentally different.

One might posit that *fog* is a prospective aspect marker, and its only job is to shift forward the evaluation time of the eventuality in its scope, and there is a covert modal operator present in the case of sentences in which *fog* expresses a meaning similar to modal operators. 'Modal subordination' can provide a rather convincing argument that it is not the case. Klecha (2014) argues that modal subordination is never available in the absence of an overt modal operator.

[17]It is difficult to find situations in which the desired meaning can only be expressed by the use of *fog*.

(62) a. Ha Kata eljut Londonba, be fog menni a
if kata PRT.get.NPST.3SG london.to PRT will.NPST.3SG go.INF the
Victoria's Secretbe. Egy szép fürdőruhát és parfümöt
victoria's secret.to a nice bathing.suit.ACC and perfume.ACC
fog venni.
will.NPST.3SG buy.INF
'If Kate gets to London, she will go to Victoria's Secret. She will buy a nice bathing suit and a perfume.'

b. Ha Kata eljut London-ba, bemegy a Victoria's Secretbe.
if kata PRT.get.NPST.3SG London.to PRT.go the victoria's secret.to
?? Egy szép fürdőruhát és parfümöt vesz.
?? a nice bathing.suit.ACC and parfume.ACC buy.NPST.3SG
'If Kate gets to London, she will go to Victoria's Secret. She buys a nice bathing suit and a perfume.'

The underlined *fog* inherits its restriction from the conditional antecedent, so that the sentence (62a) has the following meaning: *Ha Kata eljut Londonba, egy szép fürdőruhát és parfümöt fog venni* 'If Kate gets to London, she will buy a nice bathing suit and a perfume'. (62b) is marginal, only acceptable in a special context (if Kate promised you she will buy a nice bathing suit and a perfume and you know it for sure she will do that), but in that context, it does not inherit any restrictions. Therefore, it is clear that, in the absence of other candidates, *fog* is the modal operator. In the case of (62b), the absence of such an operator makes modal subordination impossible. It is important to note that (62b) is not sufficient to prove that the Hungarian futurate does not posit a null modal operator. According to Klecha (2014), modal subordination is impossible in the absence of an overt modal operator, but he does not say anything about covert (null) ones.

Moreover, if *fog* were a prospective aspect marker, we would expect it to scope under modality. But this is not the case in (63).[18]

(63) A jövőben egyre kevesebb lexikális tudás fog kelleni.
the future.in less.and.less lexical knowledge will.NPST.3SG must.INF
'In the future, less and less lexical knowledge will be necessary.'
WILL BE(NECESSARY(less and less lexical knowledge))

If we assume that *fog* is a modal syntactically and (more importantly) semantically, it is advisable to identify similarities between Hungarian modals and *fog*. The main difference between the examples is that the first context (64) contains a single piece of direct and/or trustworthy evidence [19]entailing the proposition, while in the case of the second (66), the

[18]Condoravdi (2002) assumes the basic syntactic hierarchy: tense>modal>aspect>VP. As aspectual heads scope under modals, they can only determine the modal's temporal orientation, and not its temporal perspective.

[19]By direct evidence we mean visual and other non-visual sensory evidence, while by indirect evidence we mean inferential (and reportative) evidence (see e.g. Aikhenvald (2004)).

proposition is inferred from multiple pieces of indirect evidence. Karttunen (1972) argues that the epistemic reading is connected to indirect knowledge, "that is, knowledge based on logical inferences" (Karttunen 1972:13), which is exactly the case in (65).

(64) *Context: You got an email in which the delivery company informs you that your parcel is with the delivery man and going to arrive today. The delivery man will be there between 8-12 o'clock. You say the following to your partner*:

a. A csomagom ma megérkezik.
the parcel.POSS.1SG today PRT.arrive.NPST.3SG
'My parcel arrives today.'

b. A csomagom ma meg fog érkezni.
the parcel.POSS.1SG today PRT will.NPST.3SG arrive.INF
'My parcel will arrive today.'

c. ?? A csomagomnak ma meg kell érkeznie.
?? The parcel.POSS.1SG.DAT today PRT must.NPST arrive.INF.3SG
'My parcel must arrive today.'

(65) *Context: You have deleted the e-mail that contains the tracking number of your parcel, so you do not know the date when it is going to arrive. You ordered two days ago and it usually takes around two days to deliver a parcel within Hungary. So you assume that your parcel arrives today. You say to your friend*:

a. ?A csomagom ma megérkezik.
the parcel.POSS.1SG today PRT.arrive.NPST.3SG
'My parcel arrives today.'

b. A csomagom ma meg fog érkezni.
the parcel.POSS.1SG today PRT will.NPST.3SG arrive.INF
'My parcel will arrive today.'

c. A csomagomnak ma meg kell érkeznie.
The parcel.POSS.1SG.DAT today PRT must.NPST arrive.INF.3SG
'My parcel must arrive today.'

Following Werner (2006), it can be argued that in both contexts (64) and (65), the modal base is metaphysical and the ordering source is empty in (64), and epistemic-like (taking into consideration the speaker's ideas how the world should normally turn out to be) in (65). However, a metaphysical modal base contains historical alternatives of our own world, and the modal quantifies over these worlds. In (65), the issue is settled in our world (my parcel is either with the delivery guy or not, but the speaker does not know for sure where it is), and therefore, it is settled in all of the historical alternatives of our world. If in our world, my parcel is not with the delivery guy, I do not get the parcel

today. So we cannot see how an ordering on the set of worlds in which p is false would make p true. Therefore, in (65), only the epistemic interpretation is available, because the proposition expressed by the sentence is compatible with the speaker's knowledge about the parcel's whereabouts (s/he does not know anything about it because s/he lost the email with the tracking number), but facts that are true in our world (e.g. it is not even at the delivery center) might contradict the proposition, and the speaker is fully aware that it might be the case.

We argue, as opposed to Palffy-Muhoray (2016), that *fog* can indeed have an epistemic and a metaphysical modal base even in standard Hungarian,[20] and its modal base depends on the context: it is metaphysical in (64), and epistemic in (65).

However, if we do not restrict the modal base of *fog*, its obligatorily future oriented nature in standard Hungarian will not follow from the properties of its modal base. In standard Hungarian, other than the cases when the use of *fog* serves politeness purposes as in (66), we were unable to find any example where *fog* has present temporal orientation, therefore we argue that a temporal operator should be included in its formal analysis.

(66) *Context: You are at the cashier. The shop assistant asks you to pay. S/he says to you*:

Ötezer forintot fogok kérni.
five.thousand huf.ACC will.NPST.1SG ask.INF

'I (will) ask for 5000 HUF.'

In the case of (66), the use of *fog* has nothing to do with future-time reference, it only makes the utterance politer. This use is just a 'special effect' that the use of *fog* can convey, but in these cases, it does not contribute anything to the truth-conditional meaning of sentence (66). It should be omitted, if we quote (67).

(67) Azt mondta az eladó, hogy 500 forintot (*fog)
that.ACC say.PST.3SG the shop.assistant that 500 huf.ACC will.NPST.1SG
kér(ni).
ask.INF.

'The shop assistant said that s/he (*will) ask for 500 HUF.'

We believe that those who use and accept the present-oriented epistemic use of *fog lenni* might have a different entry that we will call that fog_{NSTAND}, which refers to the

[20]One can argue that the existence of *fog lenni* 'will be.INF' is unnecessary since the language has *lesz*, which is a shorter, and therefore a more economical alternative. However, speakers still use *fog lenni* analogously to *kell lenni*. If *fog lenni* is possible to be used with an epistemic modal base and present temporal orientation, then we can assume that *fog* can clearly have an epistemic modal base, and its temporal orientation is not obligatorily future, and the only reason why speakers do not (normally) use it (and it is not part of the standard Hungarian language use) is that the existence of *lesz* 'blocks' the form *fog lenni*. However, we do not believe that we have strong enough evidence to argue for this view. In order to have adequate evidence, both *lesz* and *fog lenni* should be tested in various contexts to see whether they can be used interchangeably.

non-standard nature of it. In the dissertation, when we talk about *fog*, we always refer to the standard use of it. Whenever we write about the non-standard use of *fog*, we indicate it the following way: fog_{NSTAND}.

One last notable property of *fog* is that it is compatible with the future-in-the-past reading. (68) has the following reading; 'at the relevant past time it followed from what the attitude holder knew that the parcel would arrive during the week, but it did not.' So, the perspective time of *fog* is clearly shifted into the past.

(68) Péter azt gondolta, hogy a csomagja meg
peter that.ACC think.PST.3SG that the parcel.POSS.3SG PRT
fog érkezni a héten, de nem érkezett.
will.NPST.3SG arrive.INF the week.on but not arrive.PST.3SG
'Peter thought that his parcel would arrive during the week, but it did not arrive.'

The comparison of these claims and Palffy-Muhoray's (2016) claims:

- Palffy-Muhoray (2016) argues that *fog* cannot be used if the scope proposition is inferred from indirect evidence. ⟷ We argue that it can be used.
- Palffy-Muhoray (2016) claims that the modal base of *fog* should be restricted to a metaphysical one. ⟷ We argue that the modal base of *fog* can be both epistemic and metaphysical depending on the context.
- Palffy-Muhoray (2016) further claims that the obligatorily future-oriented nature of *fog* follows from its restricted modal base. ⟷ On the contrary, in this dissertation it is argued that a temporal part should be included in *fog*'s semantic analysis.
- Palffy-Muhoray (2016) fails to consider the possibility of the present-oriented epistemic use of *fog lenni*. ⟷ In this dissertation, it is proposed that certain native speakers–who use *fog lenni* interchangeably with *lesz* in every use of it–can have a different entry of *fog* in their lexicon.
- Palffy-Muhoray (2013, 2016) claims that the perspective time of *fog* cannot shift. ⟷ In this subsection, it has been shown that *fog*'s perspective time can shift to the past, and it is not anchored to the present.

All these differences make a new formal analysis of *fog* necessary. In the next part of this sub-chapter, a new formal analysis of *fog* is given which can account for all the properties listed above. Subsequently, the predictions of Palffy-Muhoray's (2016) account and this new account on the distribution of the non-past and *fog* are discussed. Their predictions are tested on both introspective and empirical data.

Considering all the data presented in this section, we need to give a formal semantic analysis of *fog* that can account for the following properties: *fog* can have an epistemic

modal base, its perspective time can shift to the past (the availability of the future-in-the-past reading), and it cannot have a present temporal orientation, therefore a temporal operator is needed in its analysis. We base our analysis on Condoravdi's (2002) one of the English *will*, which can be seen in (43).

(69) New formal analysis of *fog*
$[\![fog]\!] = \lambda P \lambda t \lambda w. \forall w' [w' \in Best(MB)(OS)(w)(t) \longrightarrow AT(P, (t, \infty), w')]$

To give a formal analysis that is easily comparable to Palffy-Muhoray's (2016) analysis (61), I also adopt the *Best* operator from Thomas (2014). $Best(MB)(OS)(w)(t)$ represents the set of worlds in the modal base in our world w at time t that are ranked as the most ideal ones given the ordering source OS. $Fog(P)$ is true in w at t iff P holds at some time after t in all the best worlds w' in the modal base MB according to the ordering source OS.

Similarly, fog_{NSTAND} is a modal that has no restriction on its modal base, the only difference is that it can have a present-temporal input. Therefore, it differs from the one above with respect to its temporal component, t (the initial subinterval) is not excluded.

(70) Formal analysis of fog_{NSTAND}
$[\![fog]\!] = \lambda P \lambda t \lambda w. \forall w' [w' \in Best(MB)(OS)(w)(t) \longrightarrow AT(P, [t, \infty), w')]$

$Best(MB)(OS)(w)(t)$ represents the set of worlds in the modal base in our world w at time t that are ranked as the most ideal ones given the ordering source OS. $Fog(P)$ is true in w at t iff P holds during a time interval that overlaps/is included in the interval starting at t and extending into infinity in all the best worlds w' in the modal base MB according to the ordering source OS.

The differences and similarities between Condoravdi's (2002) analysis of WOLL and our analysis of *fog*:

- Condoravdi (2002) does not involve graded modality. $\longleftrightarrow$ Our analyses incorporate both a modal base and an ordering source into both *fog*'s and fog_{NSTAND}'s analysis.
- Condoravdi (2002) does not restrict WOLL's modal base. = We argue that *fog* and fog_{NSTAND} can have both a metaphysical and an epistemic modal base.
- Condoravdi (2002) argues that WOLL's contribution is two-fold, involving a modal and a temporal component. = In this dissertation, it is argued that *fog*'s contribution is two-fold, regardless of which entry (*fog*'s or fog_{NSTAND}'s) we take into consideration.
- Condoravdi (2002) argues that WOLL can have a present temporal input. $\longleftrightarrow$ / = We argue that *fog*'s temporal input is obligatorily future-referring. / Fog_{NSTAND} can have a present temporal input similarly to WOLL.

- Condoravdi (2002) claims that the perspective time of WOLL can shift and is not anchored to the utterance time. = Both *fog* (and fog_{NSTAND}) should be in the scope of semantic tense to have their temporal arguments fixed.

The attentive reader might have already noticed that our analysis of *fog* is a lot more similar to Condoravdi's (2002) analysis of the English WOLL than Palffy-Muhoray's (2016) is. The most important difference is that Condoravdi (2002) does not involve graded modality, meaning that there is no ordering source involved in her analysis of WOLL. Unlike in the case of *fog*, in the case of *will*, the present temporal orientation is possible ('This will be the postman.'), so its analysis does not contain an obligatorily future-shifting 'part', and t (the initial subinterval) is not excluded. *Fog*, at least in present-day standard Hungarian, besides a modal contribution, makes a very important temporal contribution. Namely, (t, ∞) denotes an interval that starts after the initial subinterval t and extends to infinity. Fog_{NSTAND}'s temporal contribution is different, it denotes an interval that starts at the initial subinterval t and extends to infinity.

Given that the English futurate differs from the Hungarian one greatly, it might be surprising that the analysis of *fog* barely differs from the English WOLL. As it has been shown previously, unlike the Hungarian one, English futurates require that the event is planned, or it needs to be scheduled, or decided at the time of the utterance (Copley (2009)). This question will be addressed later, in the upcoming section of this work.

In section 4.1.2, we briefly reviewed Palffy-Muhoray's treatment of the differences between the non-past and *fog*. Since our analysis of *fog* differs from Palffy-Muhoray's (2016), it is worth discussing the differences between the predictions of the two accounts. The two main empirical points on which the two alternatives differ are the availability of an epistemic reading (and therefore a two-fold contribution), and the availability of a future-in-the-past reading for *fog*. The next section is dedicated to the discussion of the Hungarian futurate and its comparison with *fog*.

4.1.5. *The Hungarian futurate and its comparison to fog.* Before we discuss anything, let us get back to the example in (52). In that example it was shown that $NPST(p)\&\neg fog(p)$ is felicitous, while the $NPST(p)\&\neg NPST(p)$ is not. This is especially prominent when the Hungarian futurate is used to talk about a schedule.

(71) a. *Context: According to the schedule the meeting finishes at 4, but it's 3.30 and there is still a lot to talk about, and everything is happening very slowly.*

A találkozó 4-ig tart, #de nem fejeződik be 4-kor.
the meeting 4-till keep.NPST.3SG but not finish.NPST.3SG PRT 4-at
'The meeting ends at 4, but it won't end at 4.'

b. *Context: According to the schedule the meeting finishes at 4, but it's 3.30 and there is still a lot to talk about, and everything is happening very slowly.*

A találkozó 4-ig tart, de nem fog befejeződni
the meeting 4-till keep.NPST.3SG but not finish.NPST.3SG PRT
4-kor.
4-at

'The meeting ends at 4, but it won't end at 4.'

The only way we can account for the felicitousness of (71b) above is by arguing that different sets of worlds are involved in the first clause and in the second one. Namely, the sentence with *fog* can be paraphrased as '*In view of the schedule, the meeting finishes at 4, but considering how things are and what the natural continuation of the current state is, the meeting will not finish at 4*'. The first part cannot be taken as a genuine prediction, while the second part can.

Dahl (2001) tests languages in order to decide which have a grammaticalized future tense, using the 'weather forecast' context. This test is also mentioned by Gulán and Varga (2018). They argue that the Hungarian futurate can have the prediction reading as opposed to the English one, and it is used in 'weather forecast' contexts.

(72) Estére némileg veszít erejéből a szél, de érdemben csak csütörtök reggelre mérséklődik. Délután, kora este az északkeleti országrészben megdörrenhet az ég is.
'In the evening, the wind loses some of its strength, but it won't substantially moderate until Thursday morning. In the afternoon, early evening, it may thunder in the north-east of the country.'

However, it is notable that (73b) is not felicitous either in Hungarian or in English. Moreover, Rullmann et al (2022) found that (73c) is acceptable by native speakers of English.

(73) a. # It rains tomorrow.

b. ??Holnap esik.
tomorrow rain.NPST.3SG
Intended meaning: 'It will rain tomorrow.'

c. A: What's the forecast?
B: It rains tomorrow starting at 3pm, but it's sunny at the weekend.
Rullmann et. al (2022:199)

d. Holnap 3-kor elered az eső, de a hétvége már
tomorrow 3-at PRT.start.NPST.3SG the rain but the weekend already
naposnak ígérkezik.
sunny.DAT promise.NPST.3SG
'Tomorrow it starts raining at 3, but the weekend is promised to be sunny again.'

Rullmann et al. argue that the main difference between (73b) and (73c) is that the former can only be understood as a genuine prediction, while in the case of the latter, the "*raining event can form a part of a schedule with multiple events*" Rullmann et al. (2022:199). However, it is clear that the Hungarian futurate is different from the English ones. The main difference is that the former can be used to talk about seemingly 'undecided' / 'unsettled' future events. Let us consider the following situation. You are a runner and you are preparing for a race. You did all the work that is required and you are confident that you will run better than your personal best. In this situation, you utter the following sentences.[21]

(75) a. Holnap reggel 10-től futok a versenyen.
tomorrow morning 10-from run.NPST.1SG the race.on
'I run in the race from 10 tomorrow.'

b. Holnap nagyon jó időt futok a versenyen.
tomorrow very good time.ACC run.NPST.1SG the race.on
'Tomorrow I will run a very good time at the race.'

(75b) seems to be a genuine prediction as opposed to (75a) that is decided. One interesting observation–as it is also mentioned by Kaufmann (2005)–is that one thing can be decided / settled in different ways.

- A metaphysical modal base contains worlds that are identical to ours until the time t (which can be the time of the utterance in non-embedded contexts, or the reference time in embedded ones), and may diverge after that. Those worlds that have identical pasts form an equivalence class. An issue is settled if it is solved uniformly within an equivalence class. It can be decided in our world, therefore, in all of its historical alternatives, that the race starts at 10.
- As opposed to this, we argue that there is a different kind of settledness. If the organizers can decide the starting time of an event, we can decide parameters regarding our performance. So, it is no longer about the current state and the natural continuation of the current state, it is about what we have decided. We

[21]It might be interesting that, even if *lesz* 'be.fut' is considered to be the 'future tense' of *van* 'be.prst', it is not always obligatory, not even in future-referring utterances. If the speaker talks about her/his expectations or beliefs, *van* 'be.prst' is absolutely unacceptable (as it can be seen in (74b)), while, as we can see in (74a), if the speaker talks about a schedule, *van* can be used. .

(74) a. Holnap reggel 10-től versenyen vagyok / leszek, de utána
tomorrow morning 10-from competition.on be.NPST.1SG / be.FUT.1SG but then
találkozunk.
meet.NPST.1PL
'Tomorrow morning from 10, I'm at a competition, but then we meet.'

b. Holnap reggel a versenyen ügyes *vagyok / leszek.
tomorrow morning the competition.on good be.NPST.1SG / be.FUT.1SG
'Tomorrow morning I will be good at the competition.'

believe that 'our performance is predetermined' (meaning that we cannot imagine that the world turns out in another way).

The sentences with the Hungarian futurate contain a null necessity modal, which is so strong that it does not have an ordering source.[22] This modal can not only quantify over worlds in which the schedule is the same as it is in our world, it can also quantify over worlds in which what the speaker believes to be decided is the same. Through the course of this dissertation, it is argued that sentences without an overt future-tense / modal marker are generally regarded as facts, while sentences with overt markers of futurity or modality might be treated differently. Let us consider the examples from 2.1.

(76) a. Meg fogom írni a disszertációmat.
PRT will.NPST.1SG write.INF the dissertation.POSS.1SG.ACC
'I will write my dissertation.' *intention*

b. Megírom a disszertációmat.
PRT.write.NPST.1SG the dissertation.POSS.1SG.ACC
'literal translation: I write my dissertation.' *decided/planned*

c. A vonat holnap 7-kor fog indulni.
the train tomorrow 7-at will.NPST.3SG start.INF
'The train will leave tomorrow at 7 o'clock.' *scheduled / can be a prediction*

d. A vonat holnap 7-kor indul.
the train tomorrow 7-at start.INF
'The train leaves tomorrow at 7 o'clock.' *scheduled/decided*

e. Hamilton meg fogja nyerni a jövő évi Forma-1-es
hamilton PRT will.NPST.3SG win.INF the next year's formula-1
világbajnokságot.
world.championship.ACC
'Hamilton will win next year's Formula 1 world championship.' *prediction*

f. Hamilton megnyeri a jövő évi Forma-1-es
hamilton PRT.win.NPST.3SG the next year's formula-1
világbajnokságot.
world.championship.ACC
literal translation: 'Hamilton wins next year's Formula 1 world championship.'
believed to be decided

As opposed to Palffy-Muhoray (2016), we argue that the sentences are all felicitous, but not only the aspectual properties of the predicate matter when deciding between the futurate and *fog*. The use of the futurate is always somehow stronger than the use of *fog*. For example, (76a) can be used in a context in which the speaker has the intention to write her/his dissertation someday, while (76b) is preferred if the speaker has already decided that s/he will definitely write her/his dissertation, or in a context in which it is

[22]The same idea regarding the English *will* is presented in Kaufmann (2005).

part of the schedule of the speaker.[23] Similarly, we judge (76d) unacceptable in a situation in which the train is scheduled to leave at 6:30, but you believe that it will only leave at 7:00, while (76c) is perfect in this context. The difference between (76e) and (76f) is that (76e) can be understood as an unscheduled prediction of the speaker, while (76f) is stronger, and can only be used if the speaker believes that nobody else has a chance to win the Formula 1 championship, therefore, it is already decided who is going to be the winner. In the case of (76f), the modal base consists of worlds in which the circumstances are the same as in ours (Hamilton has a very good car, Hamilton is an exceptional driver, Hamilton is the most experienced driver, etc.) and the ordering source orders these worlds according to which come closest to the ideal. The ordering source contains the following propositions: {p: whoever has the best car (normally) wins the races, q: whoever is a good driver (normally) wins the races, r: whoever has the most experience (normally) wins the races}. The best worlds are those in which most of these propositions are true. The modal in (76e) quantifies over these worlds. In the case of the 'same' example with the futurate, only a modal base is involved. This modal base contains worlds in which the speaker's belief that "*nobody else has a chance to win*" is true, therefore, it is decided that Hamilton is the winner of the next championship. In this case, it is notable that we do not need the assumptions that a good car, experience, and being a generally good driver can decide who will win the championship. The speaker simply treats it as something that is decided (even if it is not decided in a way the English futurate requires decidedness, for example, someone has already given a lot of money to the other teams to lose). It must also be noted that there is a huge difference between 'this kind of settledness' and the settledness defined by Condoravdi (2002). This kind of settledness can charge from speaker to speaker, so the equivalence classes can be different in each speaker's view as their belief states can be different.[24] We will call them *objective* and *subjective settledness*, thereby indicating how the equivalence classes are determined.

In this section, we discuss how speakers decide between *fog* and the Hungarian futurate given that in (76), we could see that sometimes they can be used interchangeably with or without any meaning change. Therefore, one can come to the conclusion that–at least in the case of dynamic eventive predicates–*fog* can, in certain situations, function as a 'disambiguator', meaning that whenever the temporal orientation of a sentence is unclear, the speaker can use *fog* to make it future-referring. Similarly, the aspectual properties of the predicate (e.g. telicity), the use of future-referring time frame adverbs, or clearly defined contextual clues can do the same 'job'. So, every time the speaker uses another

[23]It answers the question: *What are you going to do this year*? I write my dissertation, I defend it, and I start a job at the university.

[24]Here, we would like to note that the Hungarian data does not necessarily contradict Copley's (2009) claim that the use of futurates always requires the presence of a plan, or decidedness. They just indicate that different kinds of decidedness are possible, and some languages are more permissive than others.

'disambiguator', the use of *fog* may be redundant. However, under this view, it would be difficult to explain why *fog* is very frequently used with telic predicates (see e.g. Palffy-Muhoray (2013)). In section 4.1.4, it is argued that the type of reasoning determines the speaker's choice, namely, if the proposition is inferred and the evidence is indirect, it is expected that speakers will prefer *fog* regardless of the predicate type or any other factors mentioned above. This was explained by the assumption that *fog* can have an epistemic modal base. In this section, we argue that the use of the Hungarian futurate–even with a metaphysical or doxastic modal base–is only possible when there is no ordering semantics involved.

Taking everything into consideration, the following reasoning is suggested to affect the choice of *fog*.

(i) First, the speaker must consider if the proposition is decided or not. The next question to be answered is if the speaker knows how or if s/he inferred it from indirect evidence. In the latter case, only the epistemic modal base is possible, therefore, only *fog* can be used. If it is not decided, the use of the futurate is impossible, therefore *fog* must be used (it is the case of the *prediction* reading).

(ii) If both the futurate and *fog* are available (so they are in 'real' competition with one another), the speaker will tend to choose the temporally unambiguous one. At this point, the aspect of the predicate, the context, and the (intended) use of temporal frame adverbs are taken into consideration.

(iii) If none of the two structures are ambiguous, the speaker chooses the futurate, since it is shorter and morphosyntactically unmarked (more economical), as also argued by Palffy-Muhoray (2016). Another motivation for the speaker to prefer the futurate over *fog* may be to avoid giving rise to the implicature, arising on the basis of (i), that the proposition is not settled (objectively, subjectively) OR if settled, the proposition was inferred.

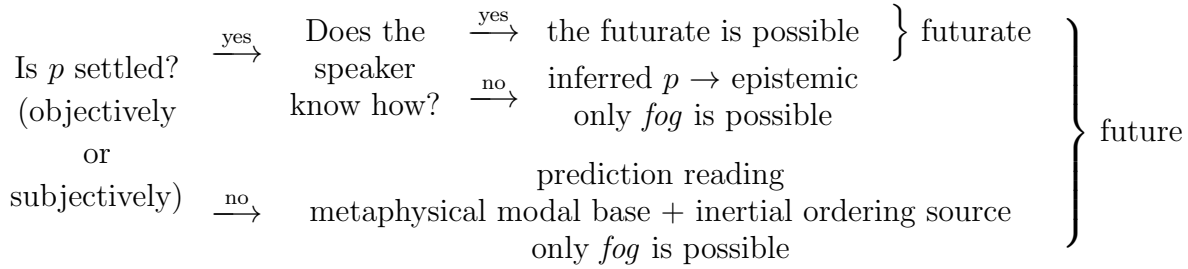


FIGURE 4. The uses of the Hungarian futurate vs *fog*.

The figure above shows that the Hungarian future (*fog*) can be used to express a wide range of future-referring meanings, while the use of the futurate (non-past) is limited to a few possible cases. However, as opposed to the English futurate, it is not the phase of the

eventuality that matters (preeventual or preparatory phase), but the question whether it is objectively (in its preparatory phase) or subjectively (the speaker believes that its outcome or any other parameters about it are predetermined) settled.

It can be concluded that in the case of dynamic predicates, the type of reasoning (the type of the evidence the speaker has and how s/he gets to the proposition) has a stronger effect on the speaker's choice, so it is plausible that it is considered first. Whenever both the futurate and *fog* are possible, speakers would choose the temporarily unambiguous one. If none of them is ambiguous, the speaker chooses the morphosyntactically simpler alternative, which is the non-past. Palffy-Muhoray's (2013, 2016) considerations are only relevant at the last two stages of the decision-making process.

To test these predictions, let us consider the following pair of examples. Accomplishment predicates (durative telic predicates) are the ones in which Palffy-Muhoray's (2016) account predicts a strong preference for the non-past construction. This is tested in the following two examples. The judgments are our introspective judgments.

Accomplishment predicates

(77) *Context: This year's Researcher's Night will be held on Friday. You see the program and tell your friend sitting next to you*:

a. Péter 10 perc alatt megold 100 másodfokú egyenletet a
peter 10 minute under PRT.solve 100 quadratic equation.ACC the
Kutatók Éjszakáján.
researcher.PL night.on
'At Researcher's Night, Peter solves 100 quadratic equations in 10 minutes.'

b. Péter 100 másodfokú egyenletet meg fog oldani 10
peter 100 quadratic equation.ACC PRT will.NPST.3SG solve.INF 10
perc alatt a Kutatók Éjszakáján.
minute under the researcher.PL night.ON
'At Researcher's Night, Peter will solve 100 quadratic equations in 10 minutes.'

(78) *Context: The program of this year's Researcher's Night is not yet available, it is decided, but hasn't been printed out. However, you know that Peter is planning to do something extraordinary this year, and you also know that he is the master of solving quadratic equations by factoring, you saw him solving at least a 100 of them in a few minutes. Your friend asks what you think and you say*:

a. ??Figyeld meg! A Kutatók Éjszakáján Péter megold 100
watch PRT the researcher's night.on peter PRT.solve.NPST.3SG 100
másodfokú egyenletet pár perc alatt.
quadratic equation.ACC a.few minute under

'Watch, at Researcher's Night, Peter solves 100 quadratic equations in a few minutes.'

b. Figyeld meg! A Kutatók Éjszakáján Péter meg fog
watch PRT the researcher's night.on peter PRT will.NPST.3SG
oldani 100 másodfokú egyenletet pár perc alatt.
solve.INF 100 quadratic equation.ACC a.few minute under
'Watch, at Researcher's Night, Peter will solve 100 quadratic equations in a few minutes.'

In the case of (77), with a settled proposition and a telic predicate, it is expected that speakers prefer the futurate, which is a correct prediction. However, Palffy-Muhoray's account would predict the exact same thing for (78), but in that case, there is a very strong preference for (78b). It must also be noted that the *fog* alternative in the case of (77a) is not marginal, while the non-past alternative in (78b) is. This can be explained by the fact that *fog* can have a metaphysical modal base and it is correctly used there even if the shorter alternative could be more economical and could emphasize how strong the statement is (since the speaker talks about a schedule). However, in the case of the futurate in (78), there is no modal that could indicate that the evidence is indirect and the proposition is inferred, so in the absence of a modal with an epistemic modal base, (78b) is decidedly odd.

As it can be seen in (78), the type of the predicate alone cannot determine the choice of the speaker, however, it is true that it can have an effect on it. All in all, it can be said that the evidence type the speaker has and the 'way' how the speaker gets to the proposition (the type of reasoning) can overwrite what we would predict by considering aspectual properties of the predicate only (as it has been suggested by Palffy-Muhoray (2013, 2016). The present proposal can also better account for the empirical fact Palffy-Muhoray (2013) reports, namely, the relatively frequent occurrence of *fog* with telic predicates (almost 40% of the examples), and the high proportion of *fog*-examples among the sentences with telic predicates (43%). If the settledness of the proposition and the evidence-type matter, then the futurate and *fog* are not always in real competition, so it is not entirely surprising that the proportion of *fog* used with a telic predicate is high.

In this subsection, we argued that the futurate has limited uses (even) in Hungarian. The non-past alone can refer to the future in certain contexts, but indicating the uncertainty of the future requires the use of an overt marker.

In the next section, the results of a (rather informal) questionnaire study are discussed. The study was conducted in order to verify in a convenience sample of native speakers the claims that *fog* is indeed used when the proposition is inferred, and the use of the futurate (alone) requires the proposition to be decided. The other main aims of the questionnaire were to provide evidence for the claim that *fog* is preferred to the futurate in certain

contexts, regardless of the use of various disambiguators (telic predicates, future-referring temporal-frame adverbs), and to test the remaining predictions of Palffy-Muhoray's (2016) account and the account presented in this study on empirical data.

We expect *fog* to be generally acceptable, while the acceptability of the futurate should vary greatly. This could be explained by the fact that talking about the future often requires inference and prediction.

4.1.6. *The Hungarian futurate vs. fog – the results of an informal questionnaire study.* The questionnaire was primarily designed to compare and contrast the acceptability of *fog* and the futurate in different types of contexts. More specifically, to gain empirical support for my hypothesis that regardless of the use of different 'disambiguators', the type and the strength of the evidence and the type of reasoning are considered first when choosing between the two structures. The future-oriented epistemic *kell* was used only for comparison.

In the previous subsection, as opposed to Palffy Muhoray's (2016) account, it was argued that when choosing between the futurate and *fog*, the type of the evidence defined in the context is considered first, therefore, it affects the speakers' choice the most. Namely, if a speaker has direct evidence that the proposition will be true (*type 1 (direct evidence)* situations below), s/he will treat it as a fact and communicates it accordingly. In these cases, no inference is involved, and *fog* and the futurate are in real competition with one another. In the case of type 1 (direct evidence) situations, both Palffy-Muhoray's (2016) and our account predict that the presence or the absence of disambiguators will mainly affect the speakers' preference. If there are disambiguator(s) in the sentence, so the sentence is temporally unambiguous, the speakers will tend to choose the less complex alternative, which is the non-past. Our account makes another prediction regarding these sentences. Namely, the stronger the evidence is and the lower the likelihood of any non-natural continuation leading to some alternative, non-target future is, the more likely the speakers will be to prefer the non-past. This prediction is based on the fact that whenever *fog* is used in an otherwise temporally unambiguous sentence, it can indicate that the proposition is inferred, which is an unwanted implicature if the speaker has clear, direct evidence. The future oriented epistemic *kell* is expected to be unnatural and rejected in these contexts.

If a speaker only indirectly infers a proposition from a set of propositions (*type 2 (inferential)* situations below), instead of communicating it as a fact, it will be indicated that it is just an inferred proposition. In that case, according to our account, *fog* is expected to be preferred to the futurate regardless of the disambiguators used in the sentence. Similarly, the use of the future oriented epistemic *kell* is expected to be acceptable. Palffy-Muhoray's (2016) account makes very different predictions regarding these

sentences. She argues that *fog* cannot be used with an epistemic modal base, so it should be rejected whenever the sentence has an epistemic reading.

In the case of *type 3 (prediction reading)* situations below, a general rule entails a specific conclusion. (79) demonstrates an example from each type and identifies the reasoning that is triggered by the situational context.

(79) a. TYPE 1 (DIRECT EVIDENCE): *A courier from a delivery company calls you to tell you that he will be there in a few minutes with the ordered packages. You look out the window and see the courier's car at the other end of the street.*

i. A csomagom néhány perc múlva megérkezik.
the parcel.POSS.1SG a.few minute later PRT.arrive.NPST.3SG
'My package arrives within a few minutes.'

ii. A csomagom néhány perc múlva meg fog érkezni.
the parcel.POSS.1SG a.few minute later PRT will.NPST.3SG arrive.INF
'My package will arrive within a few minutes.'

iii. A csomagomnak néhány percen belül meg kell érkeznie.
the parcel.POSS.1SG.DAT a.few minute.in within PRT must.NPST arrive.INF.1SG
'My parcel must arrive within a few minutes.'

REASONING: the speaker has direct evidence that p is true

b. TYPE 2/INFERENTIAL: *According to your experience, an oral exam lasts a maximum of 30 minutes. János has been taking the exam for about 25 minutes. You believe that John's exam will most likely be completed within a few minutes.*

i. János néhány percen belül kijön a teremből.
janos a.few minute.in within PRT.come.NPST.3SG the room.from
'János comes out of the room in a few minutes.'

ii. János néhány percen belül ki fog jönni a teremből.
janos a.few minute.in within PRT will.NPST.3SG come.INF the room.from
'János will come out of the room in a few minutes.

iii. Jánosnak néhány percen belül ki kell jönnie a teremből.
janos.DAT a.few minute.in within PRT must come.INF.3SG the room.from
'János must come out of the room in a few minutes,'

REASONING: the scope proposition is inferred from more than one proposition

c. TYPE 3 (PREDICTION READING): *Your partner is very disappointed because his parents were angry with him because of an unfounded accusation. Based on your past experience, you know that the truth always comes out eventually.*

i. Nyugodj meg, az igazság idővel kiderül.
calm.down.IMP.2SG PRT the truth time.INST come.out.NPST.3SG
'Calm down, the truth comes out eventually.'

ii. Nyugodj meg, az igazság idővel ki fog derülni.
calm.down.IMP.2SG PRT the truth time.INST PRT will.NPST.3SG come.out.INF
'Calm down, the truth will come out eventually.'

iii. Nyugodj meg, az igazságnak idővel ki kell derülnie.
calm.down.IMP.2SG PRT the truth.DAT time.INST PRT must.NPST come.out.INF.3SG
'Calm down, the truth must come out eventually.'

REASONING: deductive reasoning: a general rule entails a specific conclusion

The study was conducted in the form of a Google Questionnaire. The questionnaire contained four test situations from each type presented above. In each situation, the speakers had to evaluate three target sentences (one containing the non-past, one containing fog, and one containing kell), as it is demonstrated above. In any one item the speakers saw the description of the situation and the three target sentences all at once. The sentences were presented in a pseudorandomized order, but the order was the same for all the participants. After evaluating all the three sentences on a scale from 1 to 6, they could move forward to the next item. Their task was to evaluate how appropriate the sentences were in the given situation. 1 meant totally inappropriate, and 6 meant totally appropriate in the given situation. They were instructed to read each situation carefully. In addition to the test sentences, there were six distractor items, and two control items. In the case of the control items, the speakers saw a situation, and the sentence that they had to evaluate was grammatical, but completely odd in the given situation. To make it similar to the other test items, we asked them to evaluate the acceptability of three sentences.[25] Those participants were excluded who gave better than 3 to either of the control sentences, since it was assumed that they did not read the situations, just evaluated the grammaticality of the sentences. The participants were 98 adult native speakers of

[25]The following is an example:

Hungarian. They were all volunteers and were not compensated for the participation. We excluded 28 speakers based on their responses given to the control items. The remaining 70 speakers' answers were subjected to statistical analysis to test our hypotheses. We based our hypotheses on the predictions that our account makes.

Our hypotheses were the following:

(i) *Type 1 (direct evidence)* situations: The use of the futurate is more acceptable than the use of *fog*, and the use of the future-oriented epistemic *kell* 'must' is marginal.[26]

(ii) *type 2 (inferential)* situations: We expected *fog* to be equally acceptable as the future-oriented epistemic *kell* 'must'. We assumed that the use of the non-past is inappropriate in these contexts.

(iii) *type 3 (prediction reading)* situations: *Fog* is acceptable, the acceptibility of the futurate depends on various factors (e.g. the speaker can or cannot think of the proposition as subjectively settled[27]).

Two-tailed *t*-tests were used to test my hypotheses (Winter & Dodou (2010)). In the last section of this sub-chapter, we discuss the results of each type separately.

In the case of the *type 1 (direct evidence)* situations, the futurate proved to be significantly more acceptable than the use of *fog* ($t(551) = 3.02$, $p < 0.05$), and the use of the epistemic *kell* 'must' was judged to be significantly less acceptable than the other two alternatives.

First, the overall relative mean values of acceptability show the pattern that was expected in that the acceptability of the futurate is higher than that of *fog*, and the acceptability of *kell* is right below 3, confirming its marginality. Here, we would like to note that judgements between 1 and 2 were considered to be unacceptable, the ones above 2

(80) *Situation: You know that your friend Péter usually gets home at 5 o'clock every day. It is now 6 o'clock, so you think that Peter is most likely already at home. You say the following to your friend who is inquiring about Peter's whereabouts*:

a. Már haza kellett érnem.
already home must.PST.1SG reach.INF.1SG
'I should have already arrived home (by now).'

b. Már haza fogok érni.
already home will.NPST.1SG reach.INF
'I will have already reached home,'

c. Már hazaértem.
already home.arrive.PST.1SG
'I have already arrived home.'

[26]Since the majority of the predicates were telic and additional temporal frame adverbs were used, the majority of the sentences were future referring even without the use of *fog*. In the case of the contexts in which strong evidence that entailed the proposition was defined, it is plausible to expect preference for the futurate.

[27]Settled against one's belief state

	predicate	*additional disambiguators*
1st situation	megérkezik 'PRT.arrive.NPST.3SG'	pár perc múlva 'in a few minutes'
2nd situation	érkezik 'arrive.NPST.3SG'	none
3rd situation	érkezik 'arrive.NPST.3SG'	holnap este 7-kor 'tomorrow evening at 7'
4th situation	kezdődik 'begin.NPST.3SG'	délután 2-től 'from 2 o'clock this afternoon'

TABLE 1. The predicate and any other possible 'disambiguators' used in each situation.

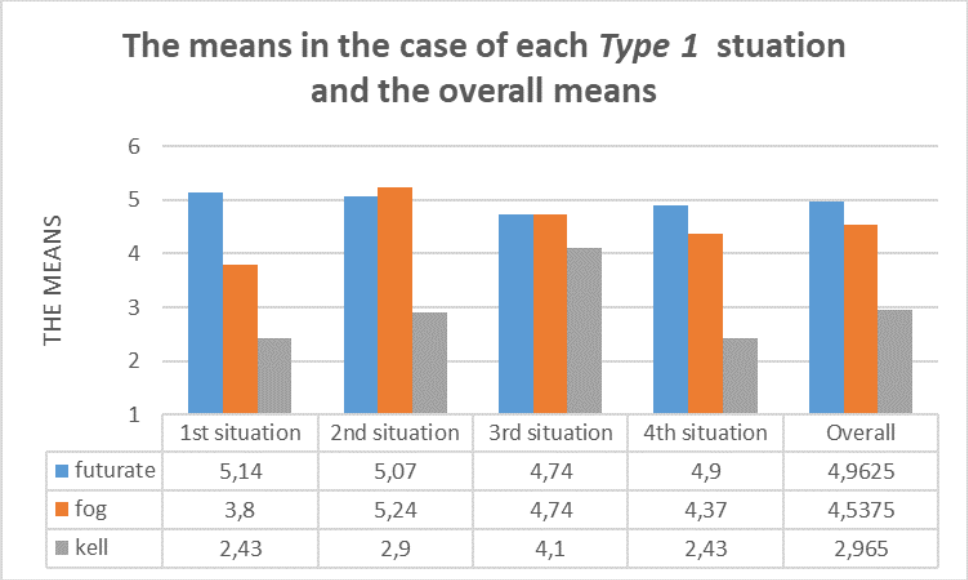


FIGURE 5. The acceptability of the structures in the situations tested and their overall acceptability.

but below 4 were considered to be marginal. We considered a sentence to be acceptable in the given situation if the judgements (or their average) were 4 or above that.

However, the difference between the acceptability of the futurate and *fog* is relatively small, and the same holds for most of the individual situations, if considered separately. The only situation that statistically shows the expected difference is the 1st situation, where the futurate was significantly more acceptable than *fog*($t(69) = 5.4, p < 0.05$). The reason why only the 1st situation shows the predicted difference might be that the predicate is aspectually/temporally unambiguous only in the 1st situation, and it is ambiguous in the other three situations. Further, the 2nd situation, which had the highest acceptability of *fog*, lacked an additional disambiguator as well. Specifically, the verb that is used in the first situation in the futurate is unambiguously future-referring (due to its telicizing verbal particle), while the verbs in the other three situations are ambiguous

between a future-referring and an event-in-progress reading. Let us compare the the first and the second situations.

(81) *Context (Type 1, 1st situation)*: *A courier from a delivery company calls you to tell you that he will be there in a few minutes with the ordered packages. You look out the window and see the courier's car at the other end of the street. You look for your wallet and tell the following to your partner*:

a. A csomagom pár perc múlva megérkezik.
the parcel.POSS.1SG few minute later PRT.arrive.NPST.3SG
'My package arrives within a few minutes.'

Mean: 5.14 (S.d.: 1.37)

b. A csomagom pár perc múlva meg fog érkezni.
the parcel.POSS.1SG few minute later PRT will.NPST.3SG arrive.INF
'My package will arrive within a few minutes.'

Mean: 3.8 (S.d.: 1.7)

(82) *Context (Type 1, 2nd situation): You heard on the news that enough vaccine will arrive at Ferihegy Airport to vaccinate thousands of people tomorrow. The shipment is on its way. You are very happy to tell your roommate*:

a. Több ezer ember oltására elegendő vakcina érkezik
more thousand people vaccination.for enough vaccine arrive.NPST.3SG
a ferihegyi repülőtérre.
the ferihegy airport.to
'Enough vaccines are arriving/will arrive at Ferihegy to vaccinate thousands of people.'

Mean: 5.1 (S.d.: 1.53)

b. Több ezer ember oltására elegendő vakcina fog
more thousand people vaccination.for enough vaccine will.NPST.3SG
érkezni a ferihegyi repülőtérre.
arrive.INF the ferihegy airport.to
'Enough vaccines will arrive at Ferihegy to vaccinate thousands of people.'

Mean: 5.3 (S.d.: 1.45)

This outcome is consistent with the hypothesis that whenever *fog* and the futurate are in competition with one another, meaning that either of them can convey the desired meaning, aspectual properties of the predicate (and the absence or presence of a temporal-frame adverb) affect acceptability. Further, the judgments obtained in the first situation bear out the prediction that when the evidence is strong and direct, in a temporarily unambiguous sentence, speakers strongly prefer the futurate. As argued above, this may serve the avoidance of an unwanted implicature: if the speaker chose to use – instead of the simpler futurate form – the more complex alternative of the *fog* construction, this

would implicate that they do it for a reason, namely, to indicate that the proposition is inferred.

In the case of *type 2 (inferential)* situations, there was no statistically significant difference in the acceptability of *fog* and *kell* ($t(557) = -1.46$, $p > 0.05$). Furthermore, in 58% of the cases, the difference between the judgements of the sentence with the epistemic *kell* 'must' and the sentence with *fog* was less than or equal to |1|. The data of the experiment suggested that speakers generally accept *fog* in its epistemic use. On a scale of 1-6, 59 out of 70 (84%) speakers gave 5-6 at least once to the epistemic use of *fog* and the average was more than or equal to 4 in the case of 51 speakers (73%). As was expected, despite the use of multiple 'disambiguators' (temporally unambiguous predicates and future-referring temporal adverbs), the futurate proved to be significantly less acceptable than *fog* ($t(557) = -5.31$, $p < 0.05$). Even though the size of this difference is smaller than expected, there was no exception to this pattern: *fog* was significantly more acceptable than futurate in all of the four situations tested. (the t-values are the following: 1^{st} situation: $t(69) = -2.57$, $p < 0.05$, 2^{nd} situation: $t(69) = -6.06$, $p < 0.05$, 3^{rd} situation: $t(69) = -2.92$, $p < 0.05$, 4^{th} situation: $t(69) = -3.58$, $p < 0.05$).

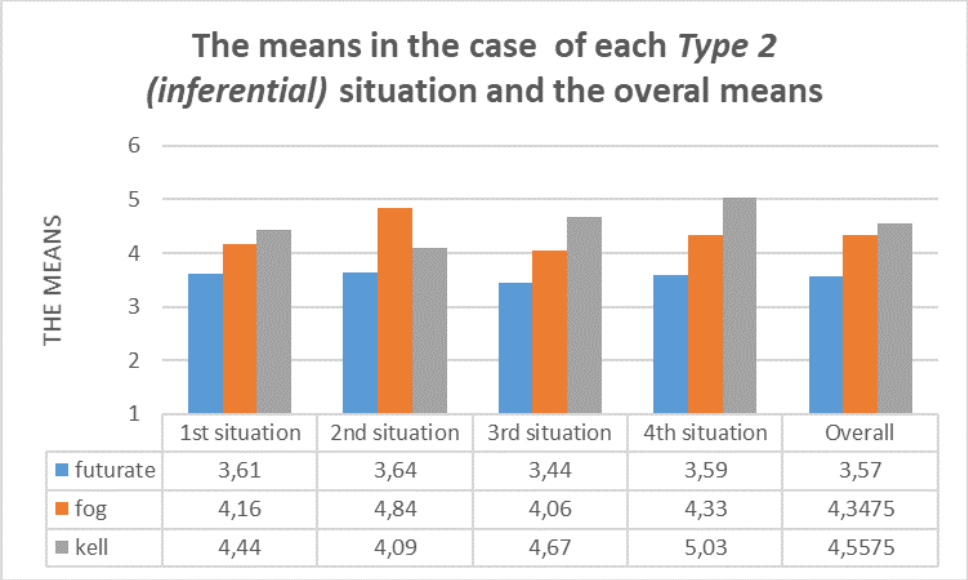
	predicate	*additional disambiguators*
1st situation	hazaér 'home.arrive.NPST.3SG'	5 órára 'by 5 o'clock'
2nd situation	kijön 'PRT.come.NPST.3SG'	néhány percen belül 'in a few minutes'
3rd situation	megkap 'PRT.get.NPST.3SG'	egy héten belül 'in a week'
4th situation	megérkezik 'PRT.arrive.NPST.3SG'	a héten 'this week'

TABLE 2. The predicates and any other possible 'disambiguators' used in each situation.

All in all, it can be said that the use of the future-oriented epistemic *fog* is widely acceptable in *type 2 (inferential)* situations among speakers, and the vast majority of them would accept it. The relatively small difference between the acceptability of the use of *fog* and the futurate can be explained by the task-type the speakers got. Namely, they were asked to judge to what extent the sentence can express the desired meaning in a given situation. In the case of the control sentences, the sentences were completely odd in the given situation, therefore it is reasonable to give higher ratings to a sentence which is, at least, comprehensible in the given situation.

One of the reasons why judgements presented in Palffy-Muhoray (2016) differ from those resented in this paper might be that she worked with bilingual consultants living in the USA (though she never specified explicitly how many consultants she worked with).

The vast majority of the participants of the questionnaire study presented in this section were born and grew up in the eastern part of Hungary and they are monolingual speakers. So there can be differences between the grammar of these two groups (or an individual and our participants). The next figure summarises our results.



	1st situation	2nd situation	3rd situation	4th situation	Overall
futurate	3,61	3,64	3,44	3,59	3,57
fog	4,16	4,84	4,06	4,33	4,3475
kell	4,44	4,09	4,67	5,03	4,5575

FIGURE 6. The acceptability of the structures in the situations tested and their overall acceptability.

If Palffy-Muhoray (2016) were right, speakers would have rejected the epistemic use of *fog*, but they did not. According to our account, in the case of these situations, *fog* and the futurate are not in real competition with one another. Moreover, if Palffy-Muhoray (2016) were right, the non-past should have been preferred since the predicates were telic and there was a temporal adverb in each sentence. Let us consider the following example.

(83) *Context (type 2 (inferential), 2nd situation): According to your experience, an oral exam lasts a maximum of 30 minutes. János has been taking the exam for about 25 minutes. You believe that János's exam will most likely be completed within a few minutes. That's why you tell the following to your girlfriend*:

a. János néhány percen belül kijön a teremből.
János a.few minute.on within PRT.come.NPST.3SG the room.from
'John will come out of the room in a few minutes.'

Mean: 3.64 (S.d.: 1.73)

b. János néhány percen belül ki fog jönni a teremből.
János a.few minute.on within PRT will.NPST.3SG come.INF the room.from
'John will come out of the room in a few minutes.'

Mean: 4.84 (S.d.: 1.52)

The truth or falsity of the proposition (*John comes out of the room within a few minutes*) is settled in our world at the time of the utterance. If John is at the final stage of the examination, he will come out in a few minutes; if he has not yet started his oral exam for some reason, he will not. The speaker is well aware of that, so s/he needs to indicate that the proposition is inferred. In this case, neither the temporal frame adverb, nor the use of a temporally unambiguous predicate can change the speakers' preference, as predicted.

Overall, it can be stated that the *fog*-alternative was preferred in each of the four cases, which can prove that people's preference change when the type of evidence changes within the context.

In the case of the *type 3 (prediction reading) (prediction reading)* situations, overall *fog* proved to be the most acceptable choice (rated higher than both non-past ($t(558) = 4.1632, p < 0.05$) and *kell* ($t(558) = 4.0989, p < 0.05$)), while the futurate and the epistemic *kell* 'must' were equally acceptable ($t(558) = 0.09, p > 0.05$). Our account– as opposed to Palffy Muhoray (2016)– would predict that only *fog* can have a genuine prediction reading and the futurate cannot. One very interesting finding of this pilot study was that the acceptability of *kell* and the futurate depends not only on the type of the predicate, but also on the time adverbials they were used with. The figure below summarises the result of the questionnaire study.

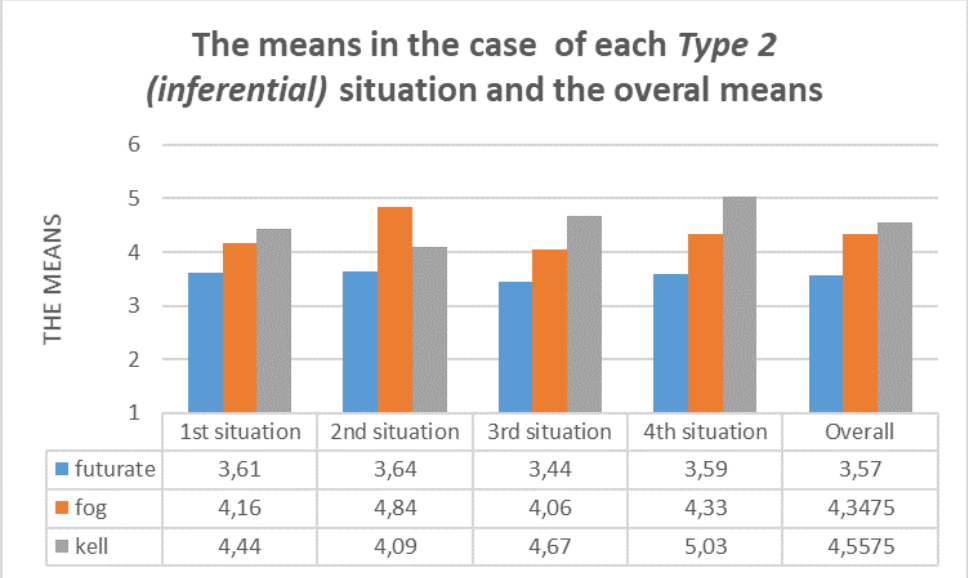


FIGURE 7. The acceptability of the structures in the situations tested and their overall acceptability.

	predicate	*additional disambiguators*
1st situation	történik 'happen.NPST.3SG'	none (temporal adverb most 'now' and már 'already')
2nd situation	előkerül 'PRT.get.into.NPST.3SG'	egyszer 'once/eventually'
3rd situation	rendeződik 'become.settled.NPST.3SG'	hamarosan 'soon'
4th situation	kiderül 'PRT.come out.NPST.3SG'	idővel 'in time'

TABLE 3. The predicates and any other possible 'disambiguators' used in each situation.

When the sentence expressed a genuine prediction, the predicate was atelic and the sentence contained no temporal adverb referring to the future, the non-past was unacceptable. 71% of the speakers rejected the use of the futurate. Besides the temporal ambiguity of the sentence, other reason why the futurate can be marginal in (84) is the relative difficulty of thinking about the truth of a predicate like the one in (84) as settled.

(84) *Context (type 3 (prediction reading), 1st situation): As a result of the pandemic, a lot of bad things happened to you, you lost your job, and you have serious financial problems. You know from experience that there are often difficult times in life, but they are usually followed by better times, so you tell your parents*:

a. Ennyi nehézség után most már valami jó történik
so.much difficulty after now already something good happen.NPST.3SG
velem.
with.me

Intended meaning: 'After all this hardship, something good will happen to me now.'

Mean: 2.33 (S.d.: 1.45)

b. Ennyi nehézség után most már valami jó fog
so.much difficulty after now already something good will.NPST.3SG
történni velem.
happen.INF with.me

'After all this hardship, something good will happen to me now.'

Mean: 4 (S.d.: 1.70)

As we can see in (85) and (86), the futurate can be acceptable in sentences that seem to have the prediction reading. It must also be noticed that the futurate was strongly preferred to *kell* when the sentence contained *egyszer* 'once' or *idővel* 'in time'. Both *egyszer* and *idővel* express that the event will take place sometime in the future and they both refer to the distal future. If a temporal adverb refers to the distal future, it can also express uncertainty, therefore their function can be connected to the one of epistemic-inferential adverbs. This can be seen and has been mentioned in the case of *majd* 'later' (see e.g. Kiefer (2012)). However, it is an interesting question to what extent these adverbs can express uncertainty. This question is briefly discussed in the last part of this chapter. What can be proposed based on these results is that their function might be much more than being possible 'disambiguators' only.

(85) *Context (type 3 (prediction reading), 2nd situation): Your friend has lost one of his mascots and can't find it anywhere. You know from experience that eventually, everthing gets found. You have found almost every item you thought was lost before. Based on your experience, you say the following* :

a. Ne aggódj, egyszer elő fog kerülni a
not worry.IMP.2SG once PRT will.NPST.3SG get.found.INF the
kabalád.
mascot.POSS.2SG

'Don't worry, our mascot will eventually be found.' Mean: 5.2 (S.d.:1.3)

b. Ne aggódj, egyszer elő kell kerülnie a
not worry.IMP.2SG once PRT must.NPST.3SG get.found.INF the
kabaládnak.
mascot.POSS.2SG

'Don't worry, our mascot must eventually be found.' Mean: 3.9 (S.d.: 1.7)

c. Ne aggódj, egyszer előkerül a
not worry.IMP.2SG once PRT.get.found.NPST.3SG the
kabalád.
mascot.POSS.2SG
'Don't worry, our mascot gets found eventually.' Mean: 5 (S.d.:1.4)

(86) *Context (type 3 (prediction reading), 4^{t}h situation): Your partner is very disappointed as his parents were angry with him because of an unfounded accusation. Based on your past experience, you know that the truth always comes out eventually, so you try to reassure your partner*:

a. Nyugodj meg, az igazság idővel kiderül.
calm.IMP.2SG PRT the truth time.with PRT.come.out.NPST.3SG
'Calm down, the truth comes out eventually .'
Mean: 5.1 (S.d.: 1.36)

b. Nyugodj meg, az igazság idővel ki fog
calm.IMP.2SG PRT the truth time.with PRT will.NPST.3SG
derülni.
come.out.INF
'Calm down, the truth will come out eventually.'
Mean: 5.29 (S.d.: 1.25)

Last but not least, in the case of the example when *hamarosan* 'soon' was used, the use of *fog* was acceptable, the futurate and *kell* were not preferred, but not even fully rejected. This result further strengthens the claim that the choice of the temporal adverb matters. Namely, *hamarosan* 'soon' refers to the near future, while *egyszer* and *idővel* refer to an unspecific time in the distal future (similarly to *majd*[28]). *Hamarosan* 'soon' refers to the future, however, it does not designate uncertainty. In this case, speakers prefer *fog* to the futurate, which strengthens the hypothesis that *fog* is preferred in the prediction reading ($t(69)=2.69$, $p<0.05$).

(87) *Context (type 3 (prediction reading), 3rd situation): Your friend János quarreled with his wife over an insignificant matter. You know from experience that such a small disagreement does not usually end strong relationships. You tell your friend based on past experience*:

a. A Jánosék közötti nézeteltérésnek hamarosan
the jános.PL between misunderstanding.DAT soon
rendeződnie kell.
settle.down.INF.3SG must.NPST
'The disagreement between the János and his wife should be settled soon.'
Mean: 3.49 (S.d.:2)

[28]In this dissertation, it is argued that MAJD-future is distinct from the futurate and should be discussed separately.

b. A Jánosék közötti nézeteltérés hamarosan rendeződni
the János.PL between misunderstanding soon settle.down.INF.3SG
fog.
fog.NPST.3SG
'The disagreement between the János and his wife will be settled soon.' Mean: 4.5 (S.d: 1.66)

c. A Jánosék közötti nézeteltérés hamarosan rendeződik.
the János.PL between misunderstanding soon settle.down..NPST.3SG
'The disagreement between the János and his wife settles soon.' Mean: 3.96 (S.d.: 1.78)

As predicted, overall, *fog* proved to be the most acceptable (overall mean: 4.54, s.d.: 1.7, range of the 'type' means: 0.39). The futurate (mean: 4.21, s.d.: 1.8, range of the 'type' means: 1.39) was the second most acceptable, and as expected, the future-oriented epistemic *kell* 'must' (mean: 3.89, s.d.: 1.9, range of the 'type' means: 1.59) was the least acceptable. The range of the 'type' means is an informative measure because it shows the difference between the highest and the lowest 'type' mean. It is by far the lowest in the case of *fog*. Therefore, we can state the *fog* is acceptable (though not the most acceptable) with all kinds of reasoning, while the acceptability of the futurate varies greatly. Our account explains this phenomenon by arguing that *fog* can be used in future-referring contexts fairly freely, while the use of the futurate is limited to contexts in which the proposition is objectively or subjectively settled and the speaker knows how.

Regarding consistency, we can say that the average of the standard deviations of the speakers' judgments in each type[29] shows that the judgments of the speakers were fairly consistent in the case of *type 2 (inferential)* situations, and overall, the most consistent in the case of *fog*. The non-past was generally accepted in the case of *type 1* situations, it consistently got a lower rating in the case of *type 2 (inferential)* situations, while the temporal adverb, the predicate, and the context affected its acceptability the most in the case of *type 3 (prediction reading)* situations. The variation in the acceptability of *kell* was the lowest in the case of *type 2 (inferential)* situations, speakers consistently accepted it in any of the *type 2 (inferential)* situations. The following table summarizes the results.

The main consequences that can be drawn from the research data of this informal questionnaire study are the following:

(1) The acceptability of the futurate strongly depends on the evidence type the speaker has. Whenever the speaker has strong evidence that P is true and the sentence is not temporally ambiguous, the futurate is the most acceptable alternative. This may suggest that the use of *fog* in an otherwise temporally unambiguous sentence

[29]The standard deviation of each participant's judgments was calculated for each type and the average of those standard deviations were taken.

	type 1 (direct evidence)	*type 2 (inferential)*	*type 3 (prediction reading)*
futurate	1.02	1.03	1.72
fog	1.42	1.01	1.06
kell	1.68	0.95	1.47

TABLE 4. The average of the standard deviation of the speakers' judgments within each type in the case of the three structures.

can have the implication that the speaker's evidence is indirect and the proposition is only inferred, which the speaker wants to avoid.

(2) *Fog* is consistently more acceptable than the non-past if the proposition is inferred, regardless of the temporal unambiguity of the sentence.

(3) The presence or absence of a temporal adverb referring to the future matters for the choice between *fog* and the futurate. The specific roles of different time adverbials (especially those referring to the distal future) need to be further investigated, however, because their role seems to go beyond just being possible disambiguators.

This last result leads us to the next chapter, in which we discuss 'the third type of future', the MAJD-*future*, as well as the possible role of other temporal adverbs and 'adverb-like' words. But before we do that, we briefly summarise the consequences of this small-scaled study and take a suggestion for a possible continuation of it.

4.1.7. *The discussion of the study presented.* The pilot questionnaire study presented here provides suggestive preliminary evidence for the claim that the type of the evidence the speaker has and the type of reasoning triggered by the context have an effect on the speaker's choice between the two structures. Temporal ambiguity does matter, but only if the futurate and *fog* are in real competition with one another, which is not the case if the speaker infers the proposition, or if the sentence expresses a genuine prediction.

However, it must be noted that it is always challenging to test sentences in given contexts (by using questionnaires). First, it is much more demanding to read multiple contexts and judge multiple sentences in a given context than giving grammaticality judgements. Therefore, we cannot expect native speakers to judge a lot of sentences at once. The type and the number of control sentences/situations and the number or distractors required are not clear, since these types of questionnaires are not common, they have no established practice in the literature.[30] It is generally true that it is always challenging and requires a lot of adjustments and pilot studies to find the best possible way to test sentences in contexts.

[30]However, it is true that a few researchers have used similar questionnaires (see e.g. Rullmann (2022) cited in previous parts of the dissertation).

The differences between *grammaticality judgement tests* and *testing sentences in contexts*:

- In the case of the latter, it is crucial that the task is very carefully specified, and it requires the participation of native speakers who fully understand their task, and take it seriously. Based on the feedback that we collected, speakers usually argue that they would not use the sentence in the given context, but the sentence is grammatically correct and it is connected to the situation, so they will not reject / they accept it.
- It is usually easier to judge the grammaticality of the sentence itself. It is frequently confusing for the speakers what it means for something to be 'acceptable in a given situations'.
- In the case of the latter, it is very difficult to test if the speakers read and comprehend the situations. Using control situations is important, because it is crucial to find those speakers who do not read the situations. For this purpose, we used sentences that were completely odd in the given context. However, these control situations might have an undesired effect on the results. If they give 1-2 to these sentences, they are more likely to give 3-4 to those that are, at least, comprehensible in the given situation.
- Since the task type is complex, there is a higher chance that speakers do not understand it, or get tired and stop reading the contexts, so there are generally more speakers who need to be excluded (than in the case of questionnaire studies that use grammaticality judgement tasks).
- It is also common that the speakers give a lower rating to sentences in a given situation, because they would say something completely different in that situation. It can be as simple as they do not like the wording of the sentence, which can also affect the credibility of the results. It is obviously the result of the misinterpretation of the task. However, it is difficult to find a way to identify and exclude these speakers. This is a challenge that must be dealt with (in the future).
- Giving speakers the chance to add their own answer(s) (what they would say in the given context) is always an option. However, it is a rather controversial and risky one. First, it can give them the impression that the sentences are wrong (cannot be said in the given context) and they need to be corrected. Second, it is always a question in which situations they are expected to give an alternative answer (e.g. if they give no higher than 3-4 to the existing sentences). Third, it requires them to do even more tasks, which makes completing the questionnaire even more demanding and time-consuming.
- In semantic (and pragmatic) researches, the variables we use are not always two-valued. It is often not as simple as the presence or absence of an article, or

grammatical agreement. For example, the speakers' certainty is not a two-valued variable, there is always a continuum. Especially when we talk about the future, it is usually argued that nothing is completely certain. However, we can still use different expressions to indicate our level of certainty. Furthermore, the question how certain the speaker is depends on the speaker and the speaker's personal interpretation of the situation/context.[31] The questionnaires in which speakers are expected to judge each sentence on a scale are usually used to test two/three-valued variables, but we can clearly see that testing variables that can have multiple values (usually not even a discrete number of values) is challenging.

- One other issue a researcher might face when *testing sentences in context* is that, one need to be very careful with the lengths of the context. Making the speakers understood the exact context is not always easy, because the contexts are usually complex, but they need to be as brief as possible. We should also try to maintain consistency, meaning that every context should be more or less of the same lengths.

It is clear that using this task type (giving contests and asking people to evaluate the acceptability of sentences in the given context on a scale) can be challenging. Taking everything into consideration, it is always reasonable to consider other available methods. Alternative (and regularly used) ways of testing complex, multiple-valued variables are following:

- Translation tasks: the speakers are required to read a context and translate a sentence (usually an English one) to her/his native language. In that case, the researcher can observe the choice of the speaker. It is common that the researcher or the team asks follow-up questions. It might be a good choice to test modality, however, in the case of future-time reference, the original sentence can strongly affect the choice of the speaker. Namely, if the English sentence contains *will* it is more likely that the speaker uses fog in the translation.

[31]Let us consider the following context.

(88) *Context: You saw your friend's accident. His leg seemed to be broken and it was in a bad condition.*

a. Péter lábát megműtik.
péter leg.POSS.3SG.ACC PRT.operate.3SG
'They operate Péter's leg.'

b. Péter lábát meg fogják műteni.
péter leg.POSS.3SG.ACC PRT will.NPST.3PL operate.INF
'Peter's leg will be operated.'

The *a* version is marginal, while the *b* version is acceptable. However, if the speaker is a medical professional, he/she can be nearly 100% sure that Peter's leg must be operated. In that case, this evidence might be enough for the speaker to consider the proposition decided and use *a* (the same as if a doctor has already stated it, in which case, *a* is completely acceptable).

- Production tasks: The speakers are required to read situations and say a sentence in the given situation. To make the task more controlled, pendent sentences can be given. A follow-up interview can also be done in which the researchers can ask clarifying questions. These interviews can be controlled or spontaneous.

These options are more time-consuming, and it takes a lot of time to evaluate the results, and the data that you collect (or at least part of it) is qualitative rather than quantitative. However, one definite advantage of them is that they can provide a solution to many of the issues listed above.

- During a production task (followed by an interview), the interviewer has the chance to clarify the situations, and he/she can see if the participant understands the task, and takes it seriously. It is also easy to monitor how much time the speaker spends on completing the tasks.
- Control situations are not needed, because the interviewer interacts with the speaker. So the negative effect of control situations and sentences can be eliminated.
- Since this is a production task, speakers can say what they would use in the given situation. It is always advisable to allow the speakers to say a sentence that they would like to say (even in that case, when pendent sentences are used).
- It is easier to work with multi-valued variables. The speakers can specify the situation in which they would accept a specific structure. The interviewer can always ask questions, or ask the speaker to compare and contrast the tested structures.

An example for a study that includes interviews can be found in 5.3.1.

4.2. **The use of temporal adverbs and 'adverb-like' words.** There are many adverbs or 'adverb-like' morphemes that are compatible with future-time reference in Hungarian. However, a few of them stand out. We refer to some of them as 'adverb-like' morphemes rather than calling them adverbs, because, even if they have a distribution identical to other Hungarian adverbs, their functions are notably different. In the following section, we discuss the future-referring uses of *majd* 'later' (*distal future*) and *most* 'now' (*proximal future*). To supplement the discussion and for comparison, we consider *később* 'later', *egyszer* 'once', *idővel* 'in time', and *éppen* 'just'.

4.2.1. *The MAJD-future.* At first, we find it important to state that in this sub-chapter of the dissertation, the focus is only on the temporal uses of *majd*. Although, it must be noted that it was very frequently used as an approximator meaning '*almost*' in middle Hungarian, and it is still used in certain fixed expressions in modern Hungarian. In this chapter, this use of *majd* is only mentioned, but not discussed in detail.

As it has already been noted, the use of *fog* 'will' is obligatory in future-referring utterances with stative predicates. Both Kiefer (2012) and Palffy-Muhoray (2016) argue

that the only 'adverb' that can make a difference in acceptability in these cases is *majd* 'later'.

(89) *Context: Peter is learning Chinese and he is quite good at it.*

a. Péter jól fog tudni kínaiul.
peter well will.NPST.3SG know.INF chinese
'Peter will be able to speak Chinese.'

b. Péter jól tud majd kínaiul.
peter will know.NPST.3SG MAJD chinese
'Peter will be able to speak Chinese later.'

c. #Péter jól tud egyszer/idővel/később kínaiul.
peter well know.NPST.3SG once/in.time/later chinese
intended meaning: 'Peter will be able to speak Chinese later.'

Both (89a) and (89b) are perfectly acceptable, while (89c) is not. According to Kiefer (2012), the descriptive meaning of *majd* can be defined as 'sometime in the future BUT NOT NOW'. Sherwood (2006) also suggests that whenever the non-past is reinforced by the use of *majd*, the gloss and the translation should include 'not now'. He suggests that *majd* is "*on the road of grammaticalization and in some uses deserves to be considered independently of other time adverbs*" (Sherwood 2006:41). Another notable difference between time adverbials and *majd* is that the latter can co-occur with other time adverbials, while time adverbials cannot combine (unless they form complex expressions like *holnap délután 2-kor* 'at 2 o'clock tomorrow afternoon').

(90) a. **Majd** átmegyek hozzád **holnap**.
MAJD PRT.go.NPST.1SG to.you tomorrow
'I will go to your place tomorrow.'

b. #**Idővel/Később/Egyszer** átmegyek hozzád **holnap**.
in.time/later/once PRT.go.NPST.1SG to.you tomorrow
Intended meaning: 'I will go to your place tomorrow.'

c. Majd **később/idővel/egyszer** átmegyek hozzád.
MAJD later/in.time/once PRT.go.NPST.1SG to.you
'I will go to your place later.'

d. #Később idővel átmegyek hozzád.
later in.time PRT.go.NPST.1SG to.you
Intended meaning: 'I will go to your place later.'

Condoravdi (2002), following Abusch (1998), assumes an intersective semantics for temporal-frame adverbs. These adverbials (or other complex temporal-frame adverbial phrases) refer to a temporal period in which the event takes place or which the run-time

of a stative overlap.[32] According to (Condoravdi 2002:73), temporal-frame adverbs map properties of eventualities to properties of times.

Definition 4.1. *KÉSŐBB: (based on Condoravdi (2002))*

$$KÉSŐBB = \begin{cases} undefined & \textit{if } P \textit{ is temporal.} \\ \lambda P \lambda w \lambda t[AT(t \cap later, w, P)] & \textit{otherwise.} \end{cases}$$

Definition 4.2. *HOLNAP: (based on Condoravdi (2002))*

$$HOLNAP = \begin{cases} undefined & \textit{if } P \textit{ is temporal.} \\ \lambda P \lambda w \lambda t[AT(t \cap tomorrow, w, P)] & \textit{otherwise.} \end{cases}$$

The derivation of (89b) fails because *később* and *holnap* cannot be used in the same clause, since one temporal adverb maps a property of eventuality into the one of time, and the other is undefined if P is temporal. However, (89a) is felicitous, and the only explanation for this is the fundamentally different nature of *majd*. Therefore, it can be concluded that its contribution to the meaning of the sentence is fundamentally different than the one of *később* or other temporal-frame adverbials.

If *majd* is not a temporal adverb, then one could think that its contribution is similar to the one of *fog* 'will'. As it has been discussed in the previous chapter, *fog* is an obligatorily future-referring modal in standard Hungarian, which has no restriction on its modal base. The attentive reader might have noticed that *fog* and *majd* share many properties. Namely, they can both appear in future-referring sentences with stative predicates, they can be used with future-referring adverbs, and the temporal part of their descriptive meaning is more or less similar ('*some time in the future*'). However, there is a huge difference; *majd*–when expressing futurity–almost never expresses a purely descriptive meaning.[33] "*It expresses various pragmatic functions (uncertainty, delay) expressing the speakers' attitudes*" (Kiefer (2012:428)).

To support his argument, Kiefer (2012) claims that *majd* (as in (91b)) can never be in the scope of negation. If it had a purely descriptive meaning, it should be possible to negate it. A sentence with *fog* can easily be negated (as in (91a)).

(91) a. Nem fogok olvasni.
not will.NPST.1SG read.INF
'I won't read.'

b. ?Nem olvasok majd.
not read.NPST.1SG MAJD

[32]This is based on the AT-relation which is defined in (3.9).

[33]Except for cases when *majd* does not precede the verb. Sherwood (2006) examined a randomly selected sample of 1500 lines containing *majd*. He concluded that *majd* was in postverbal position (with the simple future sense) in only 3% of the cases (Sherwood (2006:42)). Another exception is the complex expression *majd mindjárt* 'very soon', and idiomatic expressions.

'I won't read (later).'

c. *Nem majd olvasok.
not MAJD read.NPST.1SG
'I'll read now, and not later.'

(89b) cannot be interpreted as the negation of *Olvasok majd* with the delaying *majd*, however, in (91a), *fog* does not prevent negation (Kiefer (2012:433)).

It is true that *majd* cannot be negated descriptively, but it can be in the scope of negation whenever it is contrasted to an expression of proximity. So, metalinguistic negation is possible, even with *majd*. In these cases, the entailment/implicature that the event is delayed and the uncertainty effect are denied.

(92) a. Majd?! Nem majd, hanem most!
MAJD not MAJD but now
'Later? Not later, but now.' HNC: doc#739

b. Nem majd, hanem már ma.
not later but already today
'Not later, but today.' HNC: doc#1045

In (92), *majd* is contrasted to expressions expressing proximity (e.g. *most* 'now/very soon proximity marker', *rögtön* 'immediately', *már ma* 'already today'). These examples serve as evidence of at least two things. First, the 'NOT NOW' component is crucial in the meaning of *majd* and, therefore, *majd* can never refer to the immediate future. In fact, the delaying effect is almost always part of its expressive (non-at-issue) meaning. Second, we can conclude that *fog* and *majd* are not 'alternatives' of each other. Consequently, the MAJD-*future* is fundamentally different from the FOG-*future*.

If we assume that *majd* is fundamentally different from other future-referring adverbials and *fog*, it is a natural question to ask what it is. Following Kiefer (2012), we assume that it is an adverbial particle. Its possible meanings are categorized in Kiefer's (2012), and they are the following.

(1) DESCRIPTIVE MEANING/AT-ISSUE MEANING:
- *deictic meaning*: '*sometime in the future but not now*', BUT it can never refer to the immediate future
- *anaphoric meaning*: '*and then/next*' (Sherwood (2006:41))

(93) a. Nem adom. *Most nem. Majd.*–A „majd" szóban valami szép és izgató jövő mosolygott.
'I won't give you. Not now. Later.–In "majd", there was a hidden beautiful and exciting future.' HHC (year: 1914)

b. nagy álom gyüt a fátnesre ki ment le feküt, *majd* Usona korig mind alut,

'He got really tired and went to bed, then he slept until tea-hour.'
OMHC (year: 1740)

(2) EXPRESSIVE MEANING: "*The pragmatic meaning of the particle comes to the fore when futurity is expressed by other means in the sentence*" (Kiefer 2012:433):

(94) *...majd meg fogjuk tapasztalni*, mitsoda fennyen járó gondolati 's szavai lehetnek egy ékesen szólláshoz szokott magyar nyelvnek
'...later we will experience what memorable thoughts and words the Hungarian language, which is accustomed to eloquence, can have'
OMHC (year: 1790)

(3) PARASITIC MEANING:

- "*majd does not add any extra meaning to the sentence,*
- *it can be omitted*," (Kiefer 2012:433)
- it typically occurs when the sentence contains another future-referring adverb

(95) *...majd decemberben lesz* fele esztendeje...
'it will be half a year since...' OMHC (year: 1722)

(4) IDIOMATIC: "*majd is used to reinforce the illocutionary meaning of the utterance*" (Kiefer 2012:433)

(96) *...maid én csinálok* Kégyelmednek egy kis moslekot, kivel megh kenyegetem kégyelmedet és majd mádképp fogh lennyi utánna.
'...I will make something for your grace and I will rub you, with it, your grace, and after that it will be different' OMHC (year: 1745)

In the following sub-chapters, the above discussed characterization (Kiefer (2012)) is adopted with a few modifications. Therefore, it is important to discuss these modifications here. First, it must be noted that we do not think that it is appropriate to call certain uses of *majd* parasitic. The use of *majd* together with another adverbial (referring to a specific time) is hardly ever redundant. The difference between *a jövő hónapban* 'next month' and *majd a jövő hónapban* 'not now, but next month' is that, in the latter case, the NOT KNOW component is emphasized. So, the latter cannot be felicitously uttered in a context where the speaker thinks/feels that the next month is temporally proximal to the utterance-time.

(97) a. Nagyon félek, mert a jövő hónapban orvoshoz very be.afraid.NPST.1SG because the next month.in doctor.to megyek.
go.NPST.1SG
'I am frightened, because I will go to the doctor's next month.'

b. ??Nagyon félek, mert majd a jövő hónapban orvoshoz
very be.afraid.NPST.1SG because MAJD the next month.in doctor.to
megyek.
go.NPST.1SG
Intended meaning: 'I am frightened, because I will go to the doctor's next month.'

If the use of *majd* were parasitic in (97b), it should not change the acceptability of the sentence, but it does. (97b) sounds weird, while (97a) is completely natural. If we want to emphasize the temporally distal nature of the '*going to the doctor's*' event, it is odd to emphasize its effect on the present within the same utterance.[34] According to Sherwood (2006), the best possible translation of *majd holnap* is '*not today, but tomorrow*'. We strongly agree with the author. As it can be seen in the following utterance, *majd* indeed contributes to its expressive (non-at-issue) meaning. It emphasizes that the event will not happen earlier (in this case today).

(99) A: Játszunk még?
'Will we play a little more today?'
B: Majd holnap.
'Not today, but tomorrow.'

Another notable adjustment to Kiefer (2012)'s characterization is that, in this work, the use of *majd* in the context of an offer is considered to be idiomatic. Since Hungarian is a pro-drop language, unstressed personal pronouns are omitted, but in these structures they are present and stressed. Kiefer (2012) argues that the delaying effect of *majd* seems to be absent in the case of these structures. He does not provide any explanation why it is the case. Kiefer (2012) argues that *majd*, in its idiomatic use, has the power to reinforce the illocutionary meaning of the utterance. Following this, we argue that *majd* helps further emphasize the stressed personal pronoun, therefore, it makes the illocutionary force of the offer stronger. The fact that *majd* is capable of doing so might not be surprising because this function was present even in middle Hungarian when *majd* could still mean 'soon/immediately' (and adverbs expressing proximity/certainty tend to strengthen the illocutionary force of an utterance), and it presumably became fixed and did not disappear after the change in *majd*'s meaning. Let us consider the following examples.

[34]We would like to note that the felt distance is crucial here. Another evidence that also supports our claim is that the '*majd + temporal adverb referring to a specific time/time interval*' combination is frequently negated and contrasted to expressions of proximity.

(98) Nem majd hetek, hónapok múltán, hanem azonnal, ...
not MAJD week.PL month.PL after but immediately ...
'Not weeks, months later, but now ...'
HNC doc# 1936

(100) a. Én segítek neked.
i help.NPST.1SG you.DAT
'I will help you.' *offer*

b. Majd én segítek neked.
MAJD i help.NPST.1SG you.DAT
'I will help you.' *offer*

c. Majd segítek neked.
MAJD help.NPST.1SG you.DAT
'I will help you sometime in the future, but not now.'
not compatible with an offer

(100a) and (100b) can be understood as offers, while (100c) cannot. The reason why (100c) cannot is that the delaying effect of *majd* is present there. When making an offer, one must be committed to what s/he is saying.

In order to fully understand the different functions that *majd* can have and to fully understand its contribution to an utterance in present-day Hungarian, it is important to see how these functions developed. The next sub-chapter focuses on the diachronic development of *majd*.

4.2.2. *The diachronic development of majd.* In this part, we take a look at the diachronic development of *majd* in order to answer the question how a morpheme that once referred to the proximal future changed its meaning and developed *various pragmatic functions* and what the interrelating processes that could possibly facilitate or cause this change are.

According to Benkő (1970:819), the semantic development of *majd* is as follows: *itt* 'here' ⟶ *most* 'now' ⟶ *rögtön* 'at once' ⟶ *nemsokára* 'very soon' ⟶ *később* 'later'.

(101) a. Csak nyergelyetek, *maid* el megyunk Szegedre,....
only saddle.IMP.2PL MAJD PRT go.NPST.1PL Szeged.to
'Just saddle (the horses), we are going to Szeged.' OMHC (year: 1734)

b. mikor eszembe jutott, hogy majd én is
when mind.to come.PST.3SG that MAJD i too
megnősülök egyszer!
PRT.get.married:NPST.1SG once
'when it came to my mind that I would get married once, too!'
HHC (year: 1920)

In (101a), the speaker has to saddle the horses, so the *going* event is proximal to the utterance time, while in (101b), the use of *majd* definitely emphasizes that the event will take place '*not now, but sometime in the future*'. Therefore, it is clear that this once 'PROXIMAL' meaning component turned into a 'DISTAL' one. In this part, empirical data that were collected from various corpora are presented and discussed. These data

are included to facilitate the understanding of the underlying processes that led to this change.

Throughout this sub-chapter, Kiefer's (2012) categorization is used with the adjustments discussed in the previous sub-chapter. However, it must be noted that it was created to describe present-day uses of *majd*, so it is challenging to fit previously existing uses into his categories.

To categorize (the future-referring) uses of *majd* in the middle Hungarian (1526-1772) period, 400 randomly selected hits from The Old and Middle Hungarian corpus of informal language use (OMHC) were examined.

The following uses were identified:

(1) asking for immediate help:

(102) Jaj majd megh öllnek a komlóért,
oh MAJD PRT kill.NPST.3PL the hop.for
'Oh they are going to kill me for the hop.' OMHC (year: 1729)

(2) to talk about an event that is proximal/imminent to the utterance time:

(103) a fürdoit meg keszitette hogy majd meg fürözti,
the bath.POSS.3SG.ACC PRT make.PST.3SG that MAJD PRT bathe.him.NPST.3SG
'She made his bath in order to give him a bath (soon).'
OMHC (year: 1754)

(3) to make promises (by which the speakers commit themselves to a future action)

(104) Hiszen jőjön kend be, majd adok egy kevest,
so come.IMP.3SG you PRT MAJD give.NPST.1SG a little.ACC
'So come in, I will give you a little.' OMHC (year: 1754)

(4) *Majd* and *hamar* 'soon' were synonymous.

(105) ...maid ki fog jönni, a mint hogy az után csak hamar ki jött az úczára Thomeszné.
MAJD PRT will.NPST.3SG come.INF the like that the then only soon PRT come.PST.3SG the street.to mrs.thomesz
'...she's going to come out, and that was true as Mrs. Thomas very soon came out to the street.' OMHC (year: 1714)

(5) meaning 'later in the future':

(106) Majd magunk posztójával ruházzuk, csak várj kiczinjt Sziven.
MAJD our baize.POSS.1PL.INST dress.NPST.1PL only wait.IMP.2SG a.little.ACC heart.POSS.1SG

'We are going to dress him with our baize, just wait a little, my darling.'
OMHC (year: 1722)

Throughout the period, the approximator use was dominant, up to 51% of all examples are connected to this usage, while the temporal use accounted for only 18%. The temporal use was different, it very often referred to the proximal future. *Majd* was used in the context of asking for help, to refer to the proximal future, to make a promise, as a synonym of *hamar* 'soon', together with *éppen* 'just' forming '*éppen majd*' 'just now'. The '*later*' meaning occurs in some utterances, but *majd* more frequently meant '*soon*'. In most cases, the delaying function was absent, *majd* referred to the proximal future, so, frequently, *majd P* referred to something certain and proximal.

The early-modern Hungarian (1772-1920) examples are from the Hungarian Historical Corpus (HHC). 200 random hits were categorized.

The temporal uses we were able to identify are the following:

(1) Double *majd* meaning; 'first/now *P*, then/later *Q*' (frequency of this use was 6%)

(107) majd egyike, majd másika a vendégeknek
MAJD this.one MAJD the.other.one the guest.PL.DAT
kidűl a sorbul
PRT.collapse.NPST.3SG the line.from
'at first (now) one of the guests, then (later) another guest will collapse'
HHC (year: 1853)

(2) Different variants appeared, the most frequent one is the following:

(108) Most itt, majd amott viszik a beteget a
now here MAJD there bring.NPST.3PL the patient.ACC the
babonás kuruzsoló asszonyhoz,
superstitious charlatan woman.to
'They bring the patients now here then (later) there to the superstitious charlatan woman.' HHC (year: 1886)

Another variant: *előbb..., majd...* 'earlier..., then (later)...'

(3) meaning 'later in the future/sometime in the future':

(109) Mindegy, majd, majd jőn valami; fő az,
no.matter MAJD MAJD come.NPST.3SG something important that
hogy el bírtam jönni most!
that PRT can.PST.1SG come.INF now
'I doesn't matter, later, something will happen, the most important thing is that I could leave it now.' HHC (year: 1912—1913)

(4) *Majd* was used together with *később* 'later' and *egyszer* 'once', or *idővel* 'in time'.

(110) a. ...mikor eszembe jutott, hogy majd én is
when mind.to get.PST.3SG that MAJD i too
megnősülök egyszer!
PRT.get.married.NPST.1SG once
'When it came to my mind that I, too, would get married once.'
HHC (year: 1920)

During the early-modern Hungarian period, the '*later in the future*' meaning became prominent. The data suggest that *majd* started to lose the 'PROXIMAL' meaning component, which process was complete at the end of the period. The approximator use became less frequent. The *majd P*, *majd Q* 'now/at first..., then....' use was relatively frequent, and some variations appeared, most frequently *most P, majd Q*. In these structures, the two events are ordered, the event time of the first precedes the event time of the second. At the end of the period, the speakers started to use *majd* in requests to make them more distal and less direct.

(111) Majd gondolj vissza kinek volt igaza! - Pál!!
MAJD think.IMP.2SG back who.DAT be.PST.3SG right.POSS.3SG - pál
'Please think back who was right, Pál.' HHC (year: 1919)

At the end of the period, the PROXIMAL component was lost, the pragmatic functions (uncertainty, delay) appeared, and speakers started to use *majd* to mitigate the illocutionary force of a request.

This process continued in the modern Hungarian period (1920-1990). Similarly, 200 random hits were categorized from the Hungarian Historical Corpus (HHC).

The notable uses were the following:

(1) distal in time, delaying function:

(112) Miért ne? – Majd... egyszer... –mondta izgatottan.
why not – MAJD once –say.PST.3SG excitedly
'Why not? – Later... once.... – said excitedly.' HHC (year: 1923)

(2) It was used to make a statement/request less direct:

(113) Majd itt lesz a levélke...
MAJD here be.FUT the letter
intended meaning: 'There is the letter.' HHC (year: 1941)

(3) The approximator use became much less frequent (51% in middle Hungarian, while 7% in modern Hungarian). However, there are still fixed expressions in which *majd* is much more common than the use of *majdnem*.

(114) majd szétveti a düh
APROX burst.NPST.3SG the anger
'He almost bursts with anger.' HNC: 46 with *majd* / 4 with *majdnem*

In this period, the use of *majdnem* became much more frequent than the approximator use of *majd*. During the period, the delaying effect became more prominent. At the same time, the 'PROXIMAL' component from the 'original' (middle-Hungarian) meaning of *majd* disappeared and became just the opposite. From this DISTAL (in time) component other pragmatic functions developed. If something is distal in time (delayed), you would expect that to be uncertain.[35]

(115) A: Mikor mégy férjhez?
'When will you get married?'
B: Majd.
'sometime in the future/never'

(115) can mean anything from '*sometime in the future, but not now*' to '*never*' (also mentioned by Kiefer (2012)). If the speaker uses *majd*, it means that the event does not really have to happen. As it is argued by Kiefer (2012), delaying is very much connected to negating. A very interesting phenomenon can be attested when considering examples with *majd*. In contemporary Hungarian, the following functions of *majd* exist. Since delaying an event can mean that the event will never happen, speakers use a special expression *majd pont* 'later just' as a negative polarity item or to express mirativity.

(116) a. Ki gondolta, hogy majd (pont) te segítesz nekem.
who think.PST.3SG that MAJD just you help.NPST.2SG i.DAT
'Who would have thought that you would be the one who helps me.'
(*mirativity*)

b. Majd pont neked fog segíteni.
MAJD just you.DAT will.NPST.3SG help.INF
Intended meaning: 'He won't help you.' (*the S thinks p is almost impossible*)

c. Az, hogy te mit gondolsz, majd pont érdekel.
that that you what.ACC think.NPST.2SG MAJD just care.NPST.1SG
Intended meaning: 'The last thing I care about is what you think.' (*negation*)

As we can see, the meaning components of *majd* significantly changed through the periods as the chart below indicates. We used Kiefer's (2012) categorization with a few adjustments discussed in the previous part of the dissertation. In order to differentiate the expressive meaning from the descriptive one, the criterion of omissibility is implemented. If the sentence still had the same future-referring meaning after omitting *majd*, the use was categorized as expressive. Every time there was a(nother) future-referring adverb, or

[35]Although, as we could see, there are utterances in which the 'DISTAL/DELAYING' component is inactive as far as the evaluation of the event is concerned, and the use of *majd* is there to mitigate the illocutionary force of a request or to strengthen the one of an offer. As it has already been argued it is not entirely surprising that *majd* can do both (mitigating and strengthening the illocutionary force). This phenomenon is just a consequence of the meaning change it has gone through.

fog, the use was automatically categorized as an expressive one. The reason for that is discussed in the previous sub-part. As we can see in the figure below, the approximator use of *majd* became less and less frequent through the periods. The future-referring uses did not change much in frequency. However, they significantly changed in meaning. The descriptive meaning '*after*' became more frequent through the periods. The frequency of the use of the double *majd* reached 1% only in the early-modern Hungarian period, in which, it accounted for 6% of all the hits. The expressive meaning also became more and more frequent. This tendency might not be surprising, because the delaying function became prominent in the early-modern Hungarian and modern Hungarian periods.

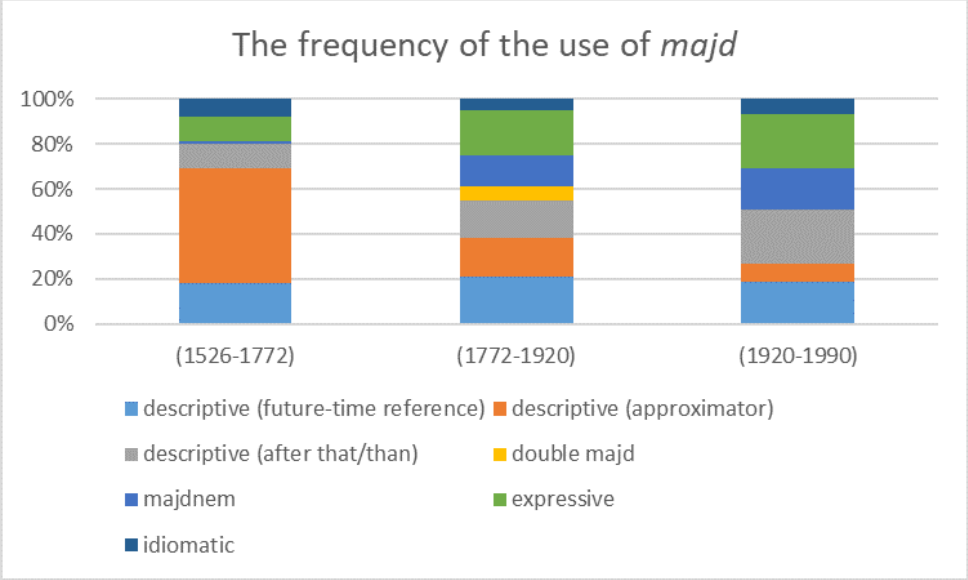


FIGURE 8. The frequency of the different uses of *majd*.

In the next sub-chapter, a possible explanation for these changes is discussed, and a formal analysis of *majd* is given.

4.2.3. *The analysis of majd.* Halm (2020, to appear) argues that the approximator *majd* came about from the temporal adverb *majd* meaning '*soon*'. If something will happen soon, it means that it has not yet happened.

(117) Majd elájulok.
MAJD/APPROX PRT.faint.NPST.1SG
'I will faint soon.' / 'I am almost fainting.' Halm (to appear)

According to Halm (to appear), (117) can mean that '*I will faint soon*' and that '*I am almost fainting*'. The *fainting* event will happen in a temporally close continuation of our world, or it happens in an epistemic alternative of it.

Halm (2020) gives the following formal diachronic analysis of *majd* 'soon'.

(118) *majd* 'soon':
TEMPORAL: w_1 is a continuation of w_0 (asserted)
PROXIMAL: $\exists w_1 \in S_{ALT}(w).close_s(w_1, w_0) \wedge p_{w1}$ (entailed)
POLAR: $\neg p_{w_0}$ (scalar implicature)

Halm (2020:143)

The use of *majd* asserts that w_0 is our world and there is a w_1 which is an epistemic alternative world of ours that is temporally close to w_0 in which P is true, and it also implies that P is not true in our world as of now (Halm 2020:143).

In the previous part of the dissertation, we argued that the PROXIMAL component was very much part of the meaning components of *majd* in middle Hungarian. However, it was lost gradually and was replaced by a DISTAL component. The question is what this change was caused or triggered by. Previously, we discussed the differences between uses of the futurate and *fog*. We argued that the telic or atelic nature of the predicate can have an effect on the choice of the speaker (at least at the last stages of the decision-making process). For example, in (119a), the completion of the reading event is in the future, even without *majd*/*fog*.

(119) a. Elolvasom.
PRT.read.NPST.1SG
'I will read it.'

b. Majd elolvasom.
MAJD PRT.read.NPST.1SG
'I will read it later.'

c. El fogom olvasni.
PRT will.NPST.1SG read.INF
'I will read it.'

Kádár and Peredy (2014) argue that the invention of the verbal particles was ready by the beginning of the middle Hungarian period. They appeared at the beginning of the old Hungarian period, and developed throughout it. *Meg* evolved first, and other particles appeared by the end of the 15th century, those are *el* 'away', *fel* 'upwards, up', *ki* 'out', *be* 'in', *le* 'down', *alá* 'under', and *össze* 'together' (Kádár and Peredy 2014:165)). Resultative and terminative particles mark telicity in Hungarian. So, the appearance and the spreading of these particles temporally overlapped the change of the meaning components of *majd*. Since the preverbal use of the verbal particle (in the majority of the times) already indicated that the event is not yet completed, but the completion of it is in the near future, so as *majd*, the use of *majd* started to become redundant. When *majd* was used together with the verbal particle, it could count as a 'double marking' of future reference.

(120) várd megh maid ki hajtom,
wait.IMP.2SG PRT MAJD PRT extrude.NPST.1SG
'Wait for it, I will extrude them.' OMHC (year: 1742)

In this utterance, the use of *majd* seems to be redundant if it refers to the proximal future as it used to do. This *majd*+particle+verb combination was frequent in middle Hungarian even when it clearly referred to the proximal future. This frequent 'double marking' could lead to the development of a new system, in which *majd* gradually lost its 'PROXIMAL' component, which was replaced by just the opposite. If *majd* was used, it started to indicate that the run-time of the event would not be proximal to the utterance time. It is possible that the observed change of the meaning components of *majd* came about from the use what we call expressive in present-day Hungarian. Even Kiefer (2012) emphasizes that the delaying and uncertainty effects are the most prominent in *majd*'s expressive meaning in present-day Hungarian. As it was argued in the previous sub-chapter, if we use *fog* in a temporally unambiguous sentence (e.g. in a sentence with a telic predicate), it can indicate that the proposition is not yet settled or the truth of it has been inferred. Similarly, if we use *majd* in a temporally unambiguous sentence, it indicates (and further emphasizes) that the speaker wants to delay the event or the event is uncertain. The 'double *majd*' might be a proof that there was an intermediate stage when the 'two different *majd*s' coexisted, one having the 'PROXIMAL', the other having the 'DISTAL' component (*now* and *then*). In modern Hungarian and contemporary Hungarian, the 'double *majd*' construction was/is no longer possible.

As discussed earlier, by the end of the early-modern Hungarian period, the descriptive/truth-conditional meaning of *majd* changed to 'sometime in the future but NOT NOW' (NOT IN THE PROXIMAL FUTURE). If something is delayed, it means that it happens only sometime in the uncertain future / might not happen at all.

(121) *majd* 'sometime in the future but not now':

TEMPORAL: w_1 is a continuation of w_0, and w_0 is not close to w_1 (temporally) — ASSERTED

DISTAL: $\forall w_1 \in S_{ALT}(w_0).\neg close_s(w_1, w_0) \vee \neg p_{w_1}$ — ENTAILED

POLAR: $\neg p_{w_0}$ — SCALAR IMPLICATURE

The DISTAL component can be written as follows: for every world (w_1) that is an epistemic alternative world of w_0, (it is true that) that world is either distal (in time) from w_0 or P is not true in it. In other words, P is either true in a distal temporal continuation of our world or not true at all. The DISTAL component is also the logical negation of the *proximal* one defined by Halm (2020). Whenever we negate *majd* contrastively, the entailment is denied.

(122) a. Nem most megyek. ⟶ Majd megyek.
not PROX go.NPST.1SG ⟶ MAJD go.NPST.1SG

'It won't be soon when I will go.' ⟶ 'I will go sometime in the future.'

b. Nem MAJD megyek. ⟶ Most nemsokára megyek.
not MAJD go.NPST.1SG ⟶ PROX not.later go.NPST.1SG
'I won't go sometime in the future, but now.' ⟶ 'I will go now.'

The pragmatic functions of *majd* most probably came about from the 'DISTAL' component of it. If something is distal in time, it possibly happens, but not necessarily, it is uncertain, and it is associated to a lesser degree of speaker's commitment. The uncertainty and delaying effect could easily develop from these implicatures. The underlying process that could account for the emergence of these functions will be discussed later in the dissertation together with *kellesz* 'must.fut'.[36]

To sum up, at the end of the old Hungarian and at the beginning of the middle Hungarian period, the particle system was ready, and the grammaticalization of the verbal particles was very much in progress. The grammatical aspect system was replaced by a lexical one. Within this very complex system, the use of the verbal particle in preverbal position already indicated that the completion of the event will take place later in the future, so the original job of *majd* could be taken over in some utterances by these particles. However, as the data collected shows, speakers did not stop using *majd* and the 'double marking' of future-time reference could have possibly lead to the appearance of a new meaning component of *majd*, which gradually replaced the old one. It is plausible that the various pragmatic functions (uncertainty, delay) of *majd* developed from this 'DISTAL' component.

The next subsection is about the proximity marker *most* 'now', and its comparison with *majd*.

4.2.4. *Proximal vs. distal future in Hungarian.* In (118), we cited Halm's (2020) analysis of the proximity marker *majd*. From this definition, an obvious question arises. In this sub-chapter, we discuss what it means to be 'PROXIMAL' and 'DISTAL'. In order to answer this question, we compare and contrast *majd* to the Hungarian proximity marker *most*. We define two 'types' of proximity in Virovec (2020): absolute and relative.

(123) Hlaa (yukw) dim wis.
PROX (PROG) FUT rain
'It is just about to rain.'

a. ✓ if rain is imminent

b. # if talking about tomorrow

[36]Since the two morphemes share a number of functions, it is reasonable to discuss them together, after the discussion of *kellesz*. Even if *kellesz* seemingly contains the future tense of *van* 'to be', sentences with *lesz* and *kellesz* differ greatly. If an event is not necessary at the utterance time, and it will only be necessary at a future time, it indicates that its event time is most probably in the distal future. Therefore, it is not surprising that *kellesz* shares a number of pragmatic functions with *majd*.

Matthewson et al. (2019:29)

The Gitskan *hlaa* 'just, now' in (123) expresses proximity in an absolute sense, while the English *just*–its translation–is a relative proximity marker. The following 'small-scale research' was conducted to see how the context and the event expressed by the predicate affect acceptability in English (Virovec 2021:18).[37]

(124) a. *Context: The last time you ate something was eight hours ago. You say*:
I have just eaten.
Native comment: This sentence is really bad. Eight hours is much too long a time to use 'just'.

b. *Context: Sally gave birth a week ago. You say*:
Sally has just had a baby girl.
Native comment: Even though it's a week ago, it's still okay and within time restraints to use 'just'. The baby is still extremely new and exciting. Also, if you need to defend the mother...for example: Why is Sally missing so much work?... She's just had a baby! It is a big life occurrence, so maybe that's why it applies, whereas for eating it does not. Maybe after a week or two, you can use 'she recently had a baby'.

c. *Context: Your brother, John brushed his teeth eight hours ago. He brushes his teeth two times a day. You say*:
John has just brushed his teeth.
Native comment: 'Just' only works if he brushed his teeth one to five minutes ago.

d. *Context: Your friend's brother died two weeks ago. You say*:
? His brother has just died.
Native comment: I would prefer 'His brother recently died'. Let's say your friend lashes out at someone and storms away, which is totally out of character for your friend. In that situation, you could say: sorry, his brother has just died. The use of 'just' makes a stronger impact, so it's the only time it can be used, to forgive unusual behavior. Whereas 'his brother recently died' can be used in any situation.

Virovec (2021:20-21)

Based on this small-scale research, it can be concluded that the acceptability of *just* changes depending on the frequency and the significance of the event expressed by the

[37]For the purposes of this study, two native speakers of American English and one native speaker of British English were interviewed. The speakers were shown contexts and sentences and their task was to tell us how appropriate each sentence was and the reason why they found them appropriate/not appropriate. Their comments are cited.

predicate. The discussion of *just* as a proximity marker would require a detailed investigation into the nature of relative proximity that *just* can express, which is not the aim of this dissertation. Our main aim was to demonstrate that languages treat proximity differently (or even within a language, there can be markers that mark absolute/relative proximity). At this point, it must be asked what kind of proximity *most* can express and how it relates to the DISTAL component that *majd* has (since it is defined as the logical negation of the PROXIMAL component defined by Halm (2020)).

In this sub-chapter, it is shown that *most* expresses relative proximity. It is further argued that *most* and *majd* divide the timeline into two parts, and it is contextually defined which part 'belongs' to which marker. It is never the absolute distance (between the utterance time and the event time) that matters, but the relative frequency of the recurrences of the event expressed by the predicate (over a contextually defined period of time) and its significance. Obviously, *most* is not the only (but probably the most frequent) expression that is contrasted to *majd*. For the purpose of this dissertation, discussing the use of *most* (and comparing it to *majd*) is sufficient. We argue that even if we contrast *majd* to a temporal adverb that expresses the event time, the time interval that it designates should 'fall in' the proximity-range.

As it has been discussed, *majd* is an adverbial particle that can be used together with other future-referring adverbs. However, *majd* is not unique in this respect. In particular uses of it–e.g. when it expresses proximity–*most* can co-occur with other temporal adverbs.

(125) Most csináltam meg a házi feladatomat egy órája.
PROX do.PST.1SG PRT the home.GEN work.POSS.1SG.ACC an hour.ago
'I have just finished my homework.' Virovec (2021:22)

In (125), *most* 'now' marks relative proximity and it is able to do so when it co-occurs with the Hungarian past tense or with future-time reference (*fog* 'will, be going to' or the Hungarian futurate). Similarly, the English *just* can co-occur with other adverbs when it marks proximity.

(126) I just talked to Annie last night.
'*The time period extends indefinitely into the past but ends precisely at the utterance time and the event happened close to this boundary (the utterance time).*'

Lindemann & Mauranen (2001:466)

It is notable that *most* does not always express relative proximity when it co-occurs with the Hungarian past or with future-time reference. Following É. Kiss (2009a), in this work, it is assumed that there are two types of adverbials: predicate adverbials, which are also called lower adverbials, and sentence adverbials. The following example demonstrates how *most* behaves when used in a sentence containing both a sentence and a predicate

adverbial. *Szerintem* 'according to me' is a sentence adverbial. Its unmarked position is a pre- or post-topic position in the left periphery, preceding everything except the topic constituent. Moreover, *szerintem* can even precede the topics themselves as its scope extends over the sentence part it precedes and c-commands. When *szerintem* appears postverbally, although its relative position is free, it has the very same scope possibilities and the very same prosody as it has preverbally (É. Kiss 2009a:23). In Hungarian, the main stress falls on the functionally extended predicate; accordingly, sentence adverbials bear secondary stress (É. Kiss 2009a:36). *Törvényesen* 'legally' is a predicate adverbial. Predicate adverbials in Hungarian precede the particle + verb + arguments string in the unmarked case, and they take scope over the constituents they precede and bear primary stress (É. Kiss 2009a:22).

(127) a. Most szerintem 'JÁNOST törvényesen választották meg.
this.time according.to.me János.ACC legally elect.PST.3PL PRT
'This time, in my opinion, they elected JOHN legally.'

b. Szerintem most 'JÁNOST törvényesen választották meg.
according.to.me this.time John.ACC legally elect.PST.3PL PRT
'In my opinion, this time, they elected JOHN legally.'

c. Szerintem Jánost 'most választották meg törvényesen.
according.to.me John.ACC PROX elect.PST.3PL PRT legally
'In my opinion, they JUST elected John legally.'

d. Szerintem Jánost 'törvényesen 'most választották meg.
according.to.me John.ACC legally PROX elect.PST.3PL PRT
'In my opinion, they legally elected John very RECENTLY.'

e. Szerintem 'JÁNOST törvényesen választották meg most.
according.to.me John.ACC legally elect.PST.3PL PART this.time
'In my opinion, they legally elected JOHN this time.'

Virovec (2021:26-27)

In (127a), (127b) and (127e), *most* 'now' is a sentence adverbial meaning 'this time', while in (127c) and (127d), *most* 'now' directly precedes the verb and marks proximity. (127c) and (127d) also differ from the other examples concerning their prosodic feature: in these two examples, the main stress falls on *most*, while in the other cases, it does not. One could argue that *most* is simply a predicate adverbial when it is used as a proximity marker. However, predicate adverbials can appear postverbally and when they do, they can stand in any order concerning both the major constituents and one another (É. Kiss 2009a:22). *Most* means 'this time' when it is in the postverbal domain and can only mark proximity when it directly precedes the verb. Consequentially, the relative proximity marker *most* is not a predicate adverbial. It must also be noted that in (127c) and (127d), *most* is obligatorily focused with the meaning 'John was elected RECENTLY

(and not a long time ago)'. Additionally, when there is any degree of contrast in the context, the proximity marker *most* is frequently only-focused.

(128) Jánost CSAK MOST választották meg és máris lemondott.
János.ACC only PROX elect.PST.3PL PRT and already PRT.say.PST.3SG
'John got elected only recently, but he has already resigned.'

Virovec (2021:27)

In the previous sub-chapter, it was also discussed that *majd* appears very frequently in preverbal position where it gets its pragmatic functions. Sherwood (2006) examined 1500 randomly selected hits, and only 3% of these hits contained *majd* in its postverbal position.

As mentioned before, *most* is usually contrasted to *majd* when it refers to the future.

(129) Nem MOST fogok végezni, hanem majd jövőre.
not PROX will.NPST.1SG finish.INF but MAJD next.year
'I will NOT finish my studies NOW, but I will finish them next year.'

It is notable that it is not the absolute distance between the utterance time and the event time that matters. The acceptability of the sentence depends on the relative proximity of the event to the utterance or reference time. For example, in the case of a person who eats a meal three times a day, (130a) is not acceptable, but (130b) is perfectly acceptable in the case of a person who gets married only once in his/her lifetime.

(130) a. *Context: You eat a meal three times a day.*

#Nem MOST fogok enni holnap, hanem majd egy hét
not PROX will.NPST.1SG eat.INF tomorrow but MAJD a week
múlva.
later

Intended meaning: 'I will not just eat tomorrow, but a week from now.'

b. *Context: You plan to get married only once in your lifetime.*

Nem MOST fogok férjhez menni jövőre, hanem majd
not PROX will.NPST.1SG husband.to go.INF next.year but MAJD
2025-ben.
2025-in

'I will not get married next year, just in 2025.'

In (130b), the additional meaning that *most* 'now' gives to such sentences is that '*the temporal distance between the event time and the utterance time is less than or equal to a contextually defined n*', and in that case, it is negated. Therefore, it can be argued that the 'PROXIMITY' meaning component is present in *most*'s meaning, and what it means for one world to be the temporally close continuation of the other is contextually defined. It should never be considered to be an absolute distance. This contextually defined distance (n) depends on the event's significance (felt by the speaker) and the

frequency the recurrences of the event expressed by the given predicate in the speaker's life. So the difference in acceptability in (130) can be explained by the fact that n is different in each case (Virovec (2021:24)). The event expressed by the predicate in (130a) is a very frequent and not significant event in the speaker's life, while the one in (130b) is infrequent and very significant. That is why one day is a long enough distance to make the use of *most* in (130a) infelicitous, while a year is not too long to make it infelicitous in the case of (130b). Similarly, the distance between the utterance time and 2025 needs to be felt long enough by the speaker so the use of *majd* is felicitous. What it means to be 'DISTAL' also depends on the context. It is clearly different in the case of the utterances *Majd megeszem a szendvicset* 'I will eat the sandwich sometime in the future' and *Majd férjhez megyek* 'I will get married sometime in the future'. However, this distance mainly depends on the distance the speakers feel proximal to the utterance time in the specific situation. The 'proximity-range' can range from a couple of minutes to a day in the case of the 'sandwich' example, and from a couple of hours or days to 1-2 years in the case of the '*getting married*' context. The complement of it can be the 'DISTAL' range that is connected to the use of *majd*. It is important to note that in the case of *majd*, the event time can only be in the future part of the complement-range and does not necessarily have to be in this 'distal' range at all (because in certain cases, the use of *majd* can indicate that the event will never happen). Moreover, the proximity should be 'measured' from the closest recurrence of the event. This is especially relevant in the case of frequent events (for example *eating*) (131a).

(131) a. Most fogok enni.
PROX will.NPST.1SG eat.INF
'The very next eating event is closer than n to the utterance time.'

b. Péter most halt meg.
peter PROX die.PST.3SG PRT
'The death of Peter is closer to the utterance time than n.'

If there is no recurrence (in the case of (131b), then there is only one event time e and the time interval considered here is the speaker's whole lifespan. That is the reason why the absolute distance between the utterance time and the event time that still allows the use of a proximity marker is the longest in these cases.

In any other case, we consider the number and the frequency of recurrences of an event or similar events in the speaker's life.[38]

[38]Concerning which events are taken to be similar, let us consider, for example, that although it is true that a person can lose a certain baby tooth only once in their life, a lot of baby teeth fall out during a fairly short period of time in that same person's life. In turn, the frequency of losing a tooth is what should be taken into account with the exception of cases where the particular tooth lost is of some special importance to the speaker. Therefore, such an event is most certainly not the same as dying or being born: as one can be born and can die only once in a whole lifetime, dying and being born are events that

Another topic that needs to be discussed is the use of proximal and distal-future markers in embedded context. *Most* 'now' and *majd* can be used with a past salient reference time and in such cases, they can place the event proximal/distal to the past salient reference time (the future-in-the-past reading is possible).

(132) a. *Context: Your wife called you two months ago (at which time she was pregnant) and told you that she was about to give birth. Your baby would have been premature. Fortunately, your child was born one and a half months later than the time of the call and is perfectly healthy.*

Egyik este a feleségem azzal hívott fel, hogy
one.of evening the wife.POSS.1SG that.INST call.PST.3SG PRT that
most fog szülni.
PROX will.NPST.3SG give.birth.INF

'One evening, my wife called me and told me that she was about to give birth.'

Virovec (2021:36)

b. *Context: Your friend called you to tell you he was ill and would not be able to help you any time soon, but he would do so sometime in the future. However, you never saw him again.*

Egyik este a barátom azzal hívott fel, hogy
one.of evening the friend.POSS.1SG that.INST call.PST.3SG PRT that
majd segít nekem.
MAJD help.NPST.3SG for.me

'One evening, my friend called me and said that he would help me some day.'

However, both (132a) and (132b) can have the reading that the event is proximal/distal from the utterance time rather than the salient past reference time. With a very strong contextual support, the aforementioned reading can be suppressed in both cases (Virovec 2021:36). It is important to note that, by using *majd*, the speaker expresses that the distance between the utterance time and the event time is NOT less than n (so it is NOT in the proximity range). By saying that, the speaker does not express that the event necessarily has to happen. Still, the sentence in (132b) has two distinct readings, the speaker can express that the event time is not proximal to the salient reference time or that the event time is not proximal to the utterance time. It is always the context that makes one or the other reading more plausible. Let us consider the following example.

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are unique and incomparable to any other event. Moreover, the perceived proximity of an event can also change over the course of time because the recurrence frequency of an event can change. For example, people usually go to the doctor's more frequently in their 80s and 90s than in their 20s and 30s, so the meaning of *Most voltam az orvosnál* 'I just went to the doctor's' can change through your life (Virovec 2021:24).

(133) a. Péter azt mondta tavaly, hogy majd meglátogat,
peter that.ACC say.PST.3SG last.year that MAJD PRT.visit.NPST.3SG
és most meglátogatott tegnap.
and PROX PRT.visit.PST.3SG yesterday
'Peter told me last year that he would visit me sometime in the future, and he visited me yesterday.'

It is clear that, in (133a), the coming event is proximal to the utterance time, but distal from the salient past reference time.

As we could see in (92), *majd* can be contrasted to *ma* 'today', *azonnal* 'immediately', but it is easy to find examples when it is contrasted to temporal-frame adverbs that designate an interval whose temporal distance from the utterance time is much bigger than a couple of minutes or even a day.

(134) Nagyon rövid időn belül, nem majd az unokáink korában,
very short time.in within not MAJD the grandchildren.POSS.1PL time.in
hanem akár pár évtizeden, pár éven belül eljuthatunk
but even a.few decade.in a.few year.in within PRT.get.MOD.NPST.1PL
oda, hogy nagyon komoly energiaválság várható, és valahogy nem
there that very serious energy.crisis can.be.expected and somehow not
akarunk tudni róla.
want.NPST.1PL know.INF about.it
'In a very short time, not in the age of our grandchildren, but even **within a few decades, within a few years**, we can reach the point where a very serious energy crisis can be expected, and somehow we don't want to know about it.'
HNC: doc#1066

In the case of a significant event in the history of mankind, even a couple of decades can fall into the proximity-range. This further proves that the relative distance matters. We argue that whenever we use a temporal-frame adverb that designates the specific time/interval of the event, this time/interval should be within the proximity range, otherwise, it cannot be contrasted to *majd*. The reason why (134) sounds natural is that those decades are relatively proximal to the utterance time given the whole history of mankind. The sentence can be 'paraphrased' as follows.

(135) Nagyon rövid időn belül, nem majd az unokáink korában,
very short time.in within not MAJD the grandchildren.POSS.1PL time.in
hanem akár MOST pár évtizeden, pár éven belül...
but even PROX a.few decade.in a.few year.in within
'In a very short time, not in the age of our grandchildren, but even within a few decades, within a few years...'

All in all, *most* and *majd* are very different, yet very similar in nature.

(1) Both Kiefer (2012) and Sherwood (2006) argue that the '*not now*' component is an important part of *majd*'s meaning. So, it is not surprising that *most* and *majd* are very much related. The proximity marker *most* picks out a subinterval from the interval ranging from the time of speaking to infinity. The complement of this interval is the '*majd*-range'. Since it is relative (and therefore determined by the frequency and the significance of the event) what we consider to be proximal, it is relative what is considered to be distal.
(2) They both can be used together with another temporal adverb determining a reference-interval in the same clause.
(3) They need to be in preverbal position to get their 'additional meanings' (proximity marker/delaying function).

The second criterion is a very important one, and it differentiates *most* and *majd* from other temporal adverbs. The question whether (temporal) adverb-like morphemes always possess pragmatic functions (if they can be used together with other temporal adverbs expressing the event time within the same clause) remains open and subject to a future research. Another interesting question is if temporal adverbs (that express the event time and cannot be used together with another temporal adverb within the same clause) can have pragmatic/other functions similar to *most* and *majd*. This question is (at least partially) discussed in the following sub-chapter.

feature	*proximity marker 'most'*	*majd*
The time interval that it can refer to is relative, depends on the predicate and the context.	✓	✓
The event time can be expressed in the same clause that contains the marker.	✓	✓
The lexical item always precedes the verb in its unmarked position. (When it is in a different position, it does not mark proximity/distal future.)	✓	(✓)— whenever it is not in preverbal position, it does not have any pragmatic functions
It is always focused and can be only-focused.	✓	×

TABLE 5. The features of the proximity marker *most* and *majd*

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The table above compares the two adverb-like morphemes discussed in this sub-part. It is important to note that these qualities only apply to the proximity marker *most*, the morpheme has a number of other uses that are not discussed in this dissertation.

4.2.5. *(Future-referring) adverbs and their functions.* The title of this chapter is probably a bit misleading since in this part we only discuss adverbs that are similar in meaning to *most* and *majd*, but they differ in one notable feature. Namely, the event time cannot be expressed in the same clause that contains them. For that reason, we can assume that they map properties of eventualities (events and states) to properties of times, therefore they do the job of referring to a temporal period in which the event takes place or the run-time of a stative overlap. First, we will discuss the use of *éppen*, then we turn to *idővel* 'in time', *később* 'later', and *egyszer* 'once'.

There are many adverbs that can express absolute proximity in Hungarian like *azonnal/rögtön* 'immediately'. There is one 'candidate' that might be able to express relative proximity besides *most*,[39] and it is *éppen* 'just'. Similarly to *most*, *éppen* can be used with the progressive aspect. This particular use of it has been given a lot of attention in previous literature; see e.g. É. Kiss (2002), and Csirmaz (2004). However, neither of them discussed the use of *éppen* with perfective interpretation. Instead, *éppen* is treated as a highly aspect-sensitive adverb that optionally co-occurs with the progressive aspect. As of yet, the only detailed discussion of the uses of *éppen* with perfective aspect is to be found in Palffy-Muhoray (2016). She argues that, when used in certain contexts, *éppen* can mark aspectual distinctions. To support this, she examines the use of *éppen* with perfective aspect and the morphologically marked past tense and claims that with perfective predicates, *éppen* conveys that the reference interval is not longer than the run-time of the event (Palffy-Muhoray 2016:29). To the best of our knowledge, nobody (else) has discussed the use of *éppen* as a proximity marker so far. Let us consider the following example.[40]

[39]Besides *most*, there is a very similar adverb, *mostanában* 'these days' which can express proximity and behaves quite similarly to *most* when it is followed by the *verb + particle + arguments* string.

(136) a. Mostanában/most nevezték ki elnöknek.
PROX appoint.PST.3PL PRT president.DAT
'He has just been appointed as president.'

b. Mostanában kinevezték elnöknek.
these.days PRT.appoint.PST.3PL president.DAT
'He was appointed as president recently.'

(136a) expresses relative proximity. In this example, the speaker wishes to emphasize that the event time is close to the utterance time in their view considering how frequent and significant the event is. Therefore, (136a) can be truthfully uttered even if the event in question happened a few months ago. However, in a context where the speaker is talking about what happened recently, (136b) can only be truthfully uttered if the event happened a few weeks ago at most. *Mostanában* behaves similarly to *most* in a particular use of it (see in Virovec (2021:28)).

[40]*Éppen*, similarly to *most*, can be used with the morphologically marked past tense to express proximity.

(137) Nekem úgy tűnt, hogy Péter éppen vizsgázni
i.DAT like.that seem.PST.3SG that peter PROX take.an.exam.INF
fog.
will.NPST.3SG
'It seemed to me that Peter was just about to take an exam.'

Formally, (137) means the following: '*there was a time t' that followed the reference time (the time of Peter being seen), Peter probably took an exam at t', and the temporal distance between the reference time and t' is small*' (Virovec 2021:32). Accordingly, similarly to *most*, we can hypothesize that *éppen* can give the sentence the additional meaning that '*the temporal distance of the event time expressed by the predicate and the reference time is less than or equal to a contextually defined n*'. However, there are notable differences between the uses of the two adverbs.

(1) As opposed to *most* 'now', in the case of *éppen* 'just', the event time can be expressed in the context, but not in the clause that contains *éppen* 'just' as shown in (138) (Virovec 2021:32).[41]

(138) Péter úgy nézett ki, mint aki éppen sírni
Peter like.that look.PST.3SG PRT like who PROX cry.INF
fog (*két másodperc múlva).
will.NPST.3SG two second later
'Peter looked as if he was just about to cry (in a two seconds).'

(2) Moreover, *éppen* 'just' is followed by the *particle + verb + arguments* string when it marks relative proximity. Additionally, *éppen* can neither be focused nor only-focused as can be seen in (139a) and (139b), respectively.

(139) a. *Julinak ÉPPEN születik meg a kislánya
juli.DAT PROX be.born.NPST.3SG PRT the little.girl.POSS.3SG
és nem majd a jövő hónapban szül.
and not MAJD the next month.in give.birth.NPST.3SG
'Juli is about to give birth and it will not be happen next month.'

b. *CSAK ÉPPEN halt meg a bátyja.
only PROX die.PST.3SG PRT the older.brother.POSS.3SG
'His/Her brother ONLY RECENTLY died.'

Virovec (2021:33)

(3) *Éppen* cannot be contrasted to *majd*.

(140) Nem majd, hanem most/*éppen kell
not MAJD but now(PROX)/just(PROX) must.NPST
foglalkozni a problémáinkkal.
do.something.with.INF the issue.PL.POSS.1PL.with

[41] *Éppen két másodperc múlva* 'in precisely two seconds' can be used, but in that case, *éppen* does not mark proximity.

'We have to deal with our problems now, and not later in the future.'

Drawing from this, whenever there is some kind of contrast in the context, the use of *éppen* 'just' becomes unacceptable (Virovec 2021:33). Therefore, we can argue that it can express relative proximity to some extent, but it has not reached the level of grammaticalization *most* has. One argument for this claim could be the following. *Éppen most* also exists and can trigger the proximal interpretation. In the case of *éppen most* 'just now', *most* 'now' marks the proximity and *éppen* 'just' only modifies it. The evidence supporting our claim is that *éppen most* has the exact same properties as *most*, as presented in the previous sub-chapter. Two of those are demonstrated by the following examples.

(141) a. (Éppen) most/ Éppen *(most) takarítottam ki két órával ezelőtt.
just PROX just PROX clean.PST.1SG PRT two hour.with ago
'I cleaned up just now, two hours ago.' *the event time can be expressed*

b. (ÉPPEN) MOST/ ÉPPEN *(MOST) takaríts ki
just(PROX) now(PROX)/ just(PROX) now(PROX) clean.IMP.2SG PRT
és nem majd holnap.
and not MAJD tomorrow
'You clean up the room now, and not tomorrow.' *it can be contrasted*

Virovec (2021:35)

At the end of 4.1.6, it was argued that some temporal adverbs might be more than 'just' disambiguators when used together with the Hungarian futurate (see (86a)). These are *idővel* 'in time' and *egyszer* 'once'. It has also been argued that they can be used together with *majd* (90c), but not together with each other or any other temporal frame adverbial (90d). It is natural to ask whether these adverbs can have similar pragmatic functions (uncertainty and delaying effect) as *majd* can. First, let us compare *majd* to these adverbs.

The similarities and the differences between the uses of these adverbs and *majd*:

(1) They cannot be used together with other temporal adverbs within the same clause. $\longleftrightarrow$ *Majd* can be.

(2) They cannot be used as a one word answer to a question. $\longleftrightarrow$ *Majd* can be.

(142) *Question: When will you finally marry your girlfriend?*

a. ✓ Majd. ('sometime in the future or never')

b. # Egyszer./Idővel./Később.

(3) They can be used in preverbal position to make a promise.[42] $\longleftrightarrow$ The use of *majd* in preverbal position is at least marginal in the context of making a promise.

[42]However, their acceptabilities vary.

(143) *Context: You cannot help your friend now because you are very busy these days. However, you really want to help him, so you want to make a promise that you will definitely help him in the future.*

a. ✓Később/?idővel/?egyszer segítek neked.
later/in.time/once help.NPST.1SG you.DAT
'Later, I will help you.'

b. #Majd segítek neked.
MAJD help.NPST.1SG you.DAT
'Later, I will help you.'

The use of *később* 'later' is perfectly acceptable and meets all the conditions that need to be met in order to successfully execute the act of making a promise. However, a sentence with the preverbal *majd* does not. One must be committed to the future action, but in that case, because of the delaying effect of *majd*, the utterance lacks the speaker's commitment (also argued by Kiefer (2012)).

(4) They cannot be negated contrastively. ⟷ *Majd* can be.

(144) a. Nem majd (később/idővel/egyszer) / *(majd)
not MAJD later/in.time/once / MAJD
később/idővel/egyszer, hanem most viszed ki a
later/in.time/once but PROX take.NPST.2SG PRT the
szemetet.
rubbish.ACC
'You take out the rubbish right now, and not some time later in the future.'

b. Nem most folytatjuk, hanem majd
not now continue.NPST.1PL but MAJD
(később/idővel/egyszer) / ?(majd) később/idővel/egyszer.
later/in.time/once / MAJD later/in.time/once
'We are not going to continue now, but sometime in the future.'

Therefore, we can assume that, as opposed to *majd*, the 'NOT NOW' component is not part of their meanings. This might not be surprising since they designate/refer to an interval in which the eventuality takes place. It is true that this interval is somehow much more difficult to define than it is in the case of *holnap* 'tomorrow', but still there is an interval. If they were able to express all the same meanings (descriptive and expressive) as *majd* can, then it would be difficult to explain why they co-occur with *majd* quite frequently.

(5) As we can see in (143), the 'level' of uncertainty that the use of these adverbs can convey is not the same in each case. Even if *később* is frequently translated to English as 'later', just as *majd* is, the pragmatic functions that are present in the case of *majd*, are almost entirely absent in the case of *később*. The roles of *idővel*

and *egyszer* need to be investigated and should be subject to a future research. The following example is from the informal questionnaire presented and discussed in 4.1.6.

(145) *type 3 (prediction reading), 2^{n}d Situation: Your friend has lost one of his lucky charms and cannot find it anywhere. You know from experience that everything that is lost gets found eventually. You have also found almost every item you thought was lost before. Based on your experience, you say*:

a. Ne aggódj, egyszer elő fog kerülni a
not worry.IMP.2SG once PRT will.NPST.3SG get.found.INF the
kabalád.
lucky.charm.POSS.2SG
'Do not worry, you will find your lucky charm.'

Mean: 5.16 (S.d.: 1.35)

b. Ne aggódj, egyszer előkerül a
not worry.IMP.2SG once PRT.get.found.NPST.3SG the
kabalád.
lucky.charm.POSS.2SG
'Do not worry, you will find your lucky charm.'

Mean: 5.04 (S.d.: 1.44)

In the case of this example, the difference between the acceptability of the futurate and *fog* was the smallest ($t(69) = -0.54$, $p > 0.05$). This could be explained by two things. First, the event expressed by the predicate could be seen as settled against the speaker's belief state. Second, it could be the temporal adverb that conveys uncertainty. There can be two sources of this uncertainty in the case of *egyszer*; first, it can be the uncertainty of the reference time, and second, it can also be the distance between the utterance time and the event time.

As it is shown above, there are many differences between *majd* and *idővel*, *később*, and *egyszer*. The most important of those is that the latter are temporal adverbs and their job is to determine a time interval that includes the time of the event expressed by the predicate and which the running time of a state overlaps. It might not be surprising that they can co-occur with *majd*, and when they do, the features of *majd idővel/később/egyszer* are identical to the ones of *majd*. Namely, they all can be contrasted to *most*, they can be used in future-referring sentences containing a stative predicate, they can be used as a one-word answer, neither can be used in the context of a promise, and they possess the pragmatic function that *majd* does in preverbal position.

(146) a. Férjhez megyek, de nem most, hanem majd
husband.to go.NPST.1SG but not PROX but MAJD
idővel/később/egyszer.
in.time/later/once

'I will get married once, but not now.'

b. Péter majd idővel/később/egyszer jól tud vezetni.
péter MAJD in.time/later/once well know.NPST.3SG drive.INF
'Peter will be able to drive very well in the future.'

c. *Context: When will you get married?*
Majd idővel/egyszer/később.
MAJD in.time/later/once
'Later, I will.'

d. *Context: You genuinely want to help someone, but you do not have time to do so now. Therefore, you would like to promise to help her/him later.*
#Majd idővel/később/egyszer segítek neked.
MAJD in.time/later/once help.NPST.1SG you.DAT
'I will help you in the future.'

So, we can assume that even if the use of these adverbs can convey some degree of uncertainty, they do not have the same pragmatic functions as *majd* does, and they are fundamentally different in use. If they had the same functions, they would not occur frequently together with *majd*, but they do. The use of *majd* is never redundant in sentences like (146).

In the last chapter of this dissertation, we turn our attention to a 'special effect' (the *politeness effect*) that, interestingly enough, both inferential-epistemic adverbs (expressing possibility) and future-referring morphemes share. It will be argued that they (or at least some of them) can be used to mitigate the illocutionary force of a request/suggestion. Before we do that, we discuss the use/function/grammatical properties of a future referring morpheme, *kellesz*, which is widespread in certain dialects of Hungarian.

5. CHAPTER: A special future-referring modal in a dialect of Hungarian

In order to be able to discuss the interaction of future-time reference and modality, one must define two very important notions: the temporal perspective and the temporal orientation. When talking about modals, these two temporal relations need to be specified. According to Condoravdi (2002), the temporal perspective (TP) is the relation between the time of modal evaluation ($MOD\text{-}T$) and the time of utterance ($UT\text{-}T$).

Definition 5.1 (Temporal Perspective)**.** $\Re(UT\text{-}T, MOD\text{-}T)$

The temporal orientation (TO) is the relation between the time of eventuality described ($EV\text{-}T$) and the time of modal evaluation ($MOD\text{-}T$).

Definition 5.2 (Temporal Orientation)**.** $\Re(MOD\text{-}T, EV\text{-}T)$

(147) El kell menni az orvoshoz a jövő héten.
PRT must.NPST go.INF the doctor.to the next week.on

First reading: 'It is necessary (now) to go to the doctor's and we will go to the doctor's next week.
(PRST(MUST(FUT(P)))) *Present TP, Future TO*

Second reading: 'It will be necessary to go to the doctor's and we will go there next week.'
(FUT(MUST(FUT(P)))) *Future TP, Future TO*

In the case of the first reading, what triggers the necessity of the '*going event*' is present at the time of the utterance (e.g. the speaker is already very sick). This is the reading under which the utterance time and the time of the modal evaluation is concurrent. In other words, the worlds in the modal base are already determined. However, the second reading is different, in that case, what triggers the necessity of the '*going event*' is not present at the time of the utterance, however, it is plausible that it will be present at a future time t' (e.g. the speaker's driving license has not yet expired, but s/he knows that it will, so it will be necessary in the future to go to the doctor's). In that case, the worlds in the modal base will only be calculated at this future time t', and the speaker talks about what s/he believes/knows to be necessary. Whenever the TP is future, the speaker has to somehow 'get to' the necessity of the proposition (e.g. predict it) since it is not present at the utterance time (therefore, it is not verifiable).

According to Condoravdi (2002), the temporal perspective is determined by tense, while the orientation is determined by aspect. So, the aspectual properties of the predicate do only matter when defining the second relation (the TO).

(148) a. János nagyon fáradt, mert Jánosnak mostanában sokat
János very tired because János.DAT these.days a.lot.ACC
kell tanulnia.
must.NPST study.INF.3SG

'John is very tired, because he has to study a lot these days.'

b. János nagyon ideges, mert egy verset meg kell
János very nervous because a poem.ACC PRT must.NPST
tanulnia.
learn.INF.3SG

'John is very nervous, because he has to learn a poem by heart.'

In the case of (148a), both the necessity of the studying event and the studying event itself can be understood as ongoing and concurrent with the utterance time (or in embedded clauses, the reference time). However, in the case of a telic predicate, the only reading is the one with a future temporal orientation. In the case of (148b), the necessity

can be present at the time of the utterance, but the '*learning the poem*' event is in the future of the utterance time.

The whole chapter is dedicated to the discussion of a morpheme *kellesz* 'must.fut', which is primarily used to express that an event will be necessary in the future (future temporal perspective). Besides that, the focus is on the question what other functions *kellesz* can possess (when used with a present temporal perspective).

5.1. **What is kellesz?** In the case of the Hungarian necessity modal *kell* 'must', one can refer to the future in a number of different ways. The most widespread alternative in standard Hungarian is the use of the non-past referring to the future (the futurate). However, by itself it cannot express the meaning that something will become necessary in the future (future temporal perspective). This might be the reason why the use of *kellesz* is common along the triple border, primarily in Szabolcs-Szatmár-Bereg, Borsod-Abaúj-Zemplén counties (Northern Eastern Hungarian dialect), and Subcarpathia (Kótyuk (1995), Lakatos & Tukácsné (1997), Beregszászi & Csernicskó (2007)).

(149) Most 11.-es vagyok. Tovább szeretnék menni egyetemre. A jogi karon gondolkozom. Olvastam a felvi.hu-n, hogy emelt töri, vagy magyar érettségit **kell tenni**. Ti melyiket választanátok? Nekem faktnak valamelyiket **választanom kellesz** ebben az évben.
'I'm an 11th-grade student now. I want to go to university. I'm thinking about law school. I read on felvi.hu that you **need to take** an A-level History or an A-level Hungarian exam. Which one would you choose? I **will** actually **have to choose** one of them this year.'[43]

As it is shown in (149), speakers of the dialects mentioned above use *kell* and *kellesz* within the same utterance. In (149), *kell* was used to express general necessity, while *kellesz* expresses that an event will be necessary in the future. In the literature, this structure has not received significant attention so far, and the authors who worked on its usage argued that only temporal factors have a significant effect on the choice of the speakers (between *kell* and *kellesz*). In the following sub-chapters of the dissertation, it is argued that, besides the previously discussed temporal factors, the use of *kellesz* is affected by *the evidence type, the certainty of the speaker, the intended/perceived politeness of the utterance, and the speaker's commitment.* Before that, it is important to summarize the findings of the literature on its use, meaning, and grammatical features.

5.1.1. *The literature on kellesz.* There is no consensus in the literature regarding the spelling of the structure. Kótyuk (1995), P. Lakatos & Tukácsné (1997) use '*kell lesz*', Tökös (1910) refers to it as '*kelleszsz*'. Csernicskó (2003) cites an example in which the

[43]https://www.gyakorikerdesek.hu

structure is also used in writing, and it is spelled as '*kellesz*'. Balázs (2010) was the first author to propose a regulated spelling. According to him, *kellesz* is phonologically one word,[44] but the correct spelling is '*kell lesz*', since *kellesz* was created from the combined use of *kell* and the future copula *lesz*. Kálmán (2015) uses both spellings (*kellesz*, *kell lesz*). In the examples collected for the purpose of this paper, both '*kellesz*' and '*kell lesz*' appear. However, *kellesz* occurs much more frequently. This could be explained by the fact that the structure is used in oral conversations much more frequently than in writing. In the absence of a regulated spelling, the spelling that is closest to the pronunciation is preferred.

(150) a. De ki **kell lesz** vezetnie, hiszen nem tudom befejezni a mondatom.
'But you will have to take him out, because I can't finish my sentence.' HNC

b. Amikor pl. Antónia hatalmasra kerekített szemekkel bemondta, hogy lehet hogy le **kellesz** zárni az alsó rakpartot és ez megbéníthatja Budapest közlekedését. HNC
'When e.g. Antónia announced with wondering eyes that they might have to close the lower quay and that this could paralyze traffic in Budapest.'

In this work, we use '*kellesz*' following the trend observed in the collected examples.

The existence of the structure was mentioned by many authors when describing the characteristic features of the NEH and the Subcarpathian dialects. P. Lakatos & Tukácsné (1997) describe *kellesz* as a structure 'still alive today' in their book on the Northern-Eastern Hungarian (NEH) dialect (P. Lakatos & Tukácsné 1997:491). Beregszászi & Csernicskó (2007) mention that in the Subcarpathian dialect, the structure often appears not only in oral conversations, but in writing, too.

Kótyuk (1995), besides mentioning the existence of *kellesz* in the Subcarpathian dialect, also dealt with the origin of the structure. According to him, *kellesz* emerged in the Subcarpathian dialect following the pattern of *szabad lesz* 'free be.fut'. Furthermore, he makes a reference to the possibility of the Ukrainian contact effect (Kótyuk 1995:53), which is demonstrated by the help of the following examples.[45] In Ukrainian, there is no impersonal verb expressing necessity. Besides intra-language analogy (*szabad lesz*), what may explain the emergence and quick spreading of the use of *kellesz* is that the structure has a lot in common with the Ukrainian structure presented in (152).[46]

[44]Phonologically, *kellesz* is one word because the *lesz* part cannot be stressed, so *kell LESZ or *KELL LESZ.

[45]We are indebted to Okszana Simkovics for the translation of the examples.

[46]In Ukrainian, the adjectives *povynen/zmushenyj* 'must' can also be used to express that something is necessary. In this case, the subject is in the nominative:

(151) a. Ja povynna budu zalyšytys' vdoma.
I.NOM must.ADJ.NOM.FEM be.1SG.FUT stay.INF.IMPERF at.home
'I have to stay at home (in the future).'

(152) a. Meni potribno/treba prochytaty knyhu.
I.DAT must read.INF.PERF book.ACC
'I have to read the book.'

b. Meni potribno/treba bude prochytaty knyhu.
I.DAT must be.FUT.3SG read.INF.PERF book.ACC
'I have to read the book (in the future).'

c. Meni potribno/treba bulo prochytaty knyhu.
I.DAT must be.PST.3SG read.INF.PERF book.ACC
'I had to read the book.'[47]

Similarities can also be noticed between the use of the Ukrainian *mozhna* 'may' and the dialectal use of the Hungarian *lehet*. Both are used with *lesz/bude* 'be.fut.3sg' when referring to future time. Furthermore, Ukrainian the *mozhna* 'may' can be used with or without the future copula *bude* 'be.fut.3sg' in future-referring sentences (similarly as the dialectal use of the Hungarian *lehet*).

(153) a. Ostannij supermisiats' roku možna (bude) pobačyty
Last.MASC.ACC supermoon.ACC year.GEN can be.FUT see.INF.
neozbrojenym okom
free.INST.SG eye.INST.SG
'The last supermoon of the year will be visible with the naked eye.'

The use of *lehetlesz* is also widespread along the triple border and in Subcarpathia, which–similarly to *kellesz*–can express that something will be possible in the future. The translation of example (154) contains the future copula *lesz*, and is acceptable and widely used in the above mentioned dialects.

(154) Az év utolsó szuperholdját szabad szemmel is
the year last supermoon.POSS.3SG.ACC free eye.INST too
lehetlesz látni...
possible.be.FUT see.INF
'The last supermoon of the year will be visible with the naked eye.'[48]

According to Császári (2011), the inflected form of *treba* 'must', *trebalo*, can be found in the dialects of Western Slovakia. The use of *trebalo* is also widespread in Ruthenian, which, like *kellesz*, is most likely a structure created by merging *treba* 'must' and the inflected form of the copula *bulo*.

(155) ne trebalo novu kadylnciu kupovaty
no need.PST new.ACC.FEM smoker.ACC.FEM buy.INF.IMPERF

There is another verb *musyty* 'must', which is rarely used in modern Ukrainian, speakers prefer the adjective *zmushenyj* 'must' (Virovec 2018:18).
[47]Translated by Okszana Simkovics.
[48]Source: https://hirzona24.com

'...there was no need to buy a new incense burner (it's the kind of incense that is used in church ceremonies).'[49]

The structure presented in (155) is an example of the fact that *kellesz* is not unique, and similar structures are used in other languages. These languages are in contact with Hungarian, so the possibility of an areal contact effect should not be ruled out.

The meaning and uses of the structure were also discussed in the literature on *kellesz*. Kálmán (1966) points out that in the NEH dialect, *lesz* is used after the main verb to express probability.

(156) Péter elment lesz a boltba.
Peter PRT.go.PST.3SG be.FUT the shop.to
'Peter probably went to the shop.'

Taking all these into consideration, Balázs (2010) came to the conclusion that *kellesz* means that something is probably needed.

(157) Péternek el kell lesz mennie a boltba.
Peter.DAT PRT must.NPST be.FUT.3SG go.INF.3SG the shop.to
'It is probable that Péter needs to go to the shop.'

Kálmán (2015) argues that *kell* behaves similarly to *muszáj*. According to him, the use of *kellesz* is motivated by the existence of similar structures like *muszáj lesz* 'must be.fut' or the aforementioned *szabad lesz* 'free be.fut' in Hungarian. Since both *muszáj* and *szabad* are nominal expressions, they can appear together with the inflected form of the copula *to be*.

(158) a. Muszáj lesz hazamennem.
must be.FUT.3SG home.go.INF.1SG
'I will have to go home.'

b. Szabad lesz telefont használni órán.
free be.FUT.3SG phone.ACC use.INF class.on
'We will be allowed to use our phones in class.'

Kálmán (2015) calls *kell* a 'semi-verb', and argues that it is no coincidence that there is a nominal expression with a very similar use (and meaning). As opposed to *muszáj* and *szabad*, in the case of *kell* and *lehet*, there is no available tool to mark future temporal reference. Therefore, speakers regard them as 'semi-verbs' and create the constructions *kellesz* and *lehetlesz*. Kálmán (2015) mentions that in the case of *kellesz*, the future copula is not always redundant, because the meanings of *kell* and *kellesz* are not always the same. In the case of *kell*, the stimulus that triggers the necessity is already present at the moment of speaking, so the meaning '*something will become necessary*' is not available. Kálmán (2015) supplements his argument by claiming that *kell* and *lehet* are the most

[49]http://m.ruwega.com/news/jak-rusin-voskrjes-iz- mjertvykh/

frequently used impersonal verbs in Hungarian, which can explain the fact that in these two cases (but in no other case) the *kell+lesz* and *lehet+lesz* structures developed and became widespread in certain dialects. It must be noticed that this argument does not explain the significant dialectal differences.[50] If the use of *kellesz* could only be explained by the fact that it is similar (in form) to *muszáj lesz*, its use would probably not be dialectal, since *muszáj lesz* is grammatical and widely used in standard Hungarian.

So, there is no consensus in the literature regarding the origin of these structures (*kellesz* and *lehetlesz*). Some authors emphasize analogy, others the contact effect, but both can be equally relevant and play an important role in the formation and spread of the structure. In Virovec (2019, 2020), we argue that the emergence of *kellesz* was primarily motivated by the Ukrainian contact effect, but its spread was facilitated by its similarity to *muszáj lesz*, and the need to distinguish the two meanings ('now it is necessary that *e* occurs' / 'the occurrence of *e* will become necessary in the future').

5.1.2. *The grammatical features of kellesz.* In this chapter, the general grammatical properties of *kellesz* are summarised. The sub-chapter is based on the findings first published in Virovec (2019, 2020).

According to Beregszászi & Csernicskó (2007), *kellesz* can be used as a main verb and as an auxiliary verb.

(159) a. **Kellesz** nekem egy új cipő.
must.FUT i.DAT a new shoe
'I will need a new pair of shoes.'

b. STANDARD:

Kelleni fog nekem egy új cipő.
must.INF will.NPST.3SG i.DAT a new shoe
'I will need a new pair of shoes.'

(160) a. A jövő héten el **kellesz** utazni Budapestre.
the next week.on PRT must.FUT travel.INF budapest.to
'I will need to travel to Budapest next week.'

b. STANDARD:

A jövő héten el **kell** (majd) utazni Budapestre.
the next week.on PRT must.NPST MAJD travel.INF budapest.to
'I will need to travel to Budapest next week.'

Beregszászi & Csernicskó (2007:37)

[50] *Kellesz* is only used in a few dialects of Hungarian and its use is rejected by speakers of other dialects. A '*control*' group consisting of speakers from South Transdanubia and Hajdú-Bihar county (16 speakers altogether) was used by us in Virovec (2019), and it was found that none of them accepts the use of *kellesz*. The average rating of the sentences with *kellesz* was 1 (the lowest possible) with a standard deviation of 0 in that group.

The distribution of the use of *kellesz* and *kell* is compared in the table below ($N = 100$). In order to determine the grammatical features of *kellesz*, 100 randomly selected examples were analysed, they are from various forums, and the HNC. In the case of *kell*, the 100 randomly selected hits are all from the HNC.

Kell/kellesz	*Main verb*	*Auxiliary verb*
kellesz	*2 percent*	*98 percent*
kell	*11 percent*	*89 percent*

TABLE 6. The distribution of the use of *kell* and *kellesz*.

Kellesz as an auxiliary verb is mostly used with the infinitive (e.g. *el kell menni*), and the inflected infinitive (e.g. *el kell mennem*).

Verb+subjunctive	*Infinitival verb*	*Inflected infinitival verb*
1 percent	*57 percent*	*42 percent*

TABLE 7. The distribution of the verbal complements of *kellesz* as an auxiliary verb.

The following are authentic examples for each usage.

(161) a. Kéményseprésкor azokért a kéményekért is **kellesz** **fizetni**,
chimney.sweeping.AT those.for the chimney.PL.for too must.FUT pay.INF
amik nincsenek használatban?
those not.be.NPST.3PL use.in
'When sweeping chimneys, do you also have to pay for those chimneys that are not in use?'[51] *infinitival complement*

b. Hengerfejtömítést fognak cserélni a kocsimon, de
cylinder.head.gasket.ACC will.3PL change.INF the car.POSS.1SG.on but
a napokban cseréltem olajat. Ugye nem **kellesz** megint
the day.PL.in change.PST.1SG oil.ACC so not must.FUT again
cserélnem?
change.INF.1SG
'They are going to change the cylinder head gasket in my car, but I changed the oil the other day. I don't need to change it again, do I?'[52]
inflected infinitival complement

c. Az normális, ha attól rettegek, mi lesz, ha
that normal if that.from be.frightened.NPST.1SG what will.be.3SG if
a szüleim nélkül **kellesz**, **hogy éljek**, és nem
the parent.PL.POSS.1SG without must.FUT that live.SUBJ.1SG and not

[51]Forrás: https://www.gyakorikerdesek.hu
[52]Forrás: www.gyakorikerdesek.hu

tudom fenntartani azt az "anyagi jólétet", ami
can.NPST.1SG PRT.keep.INF that.ACC the material well.being.ACC that
itthon van?
at.home be.NPST.3SG

'Is it normal to be frightened of what will happen when I will have to live without my parents and if I cannot maintain the 'material well-being' that I have at home?'[53] *subjunctive*

É. Kiss (2009b) summaries her observations regarding the occurrence of *kell* with different constructions as follows: "in the west and south (i.e. Transdanubia and Southern Hungary), *el kell mennem* 'prt must.npst go.inf.1sg' is preferred, in the east (Moldova and Transylvania), the version *el kell menjek* 'prt must.npst go.subj.1sg' is used. In the north-eastern part of the Great Plain (Carpathians and Szabolcs-Szatmár-Bereg county), *el kell, hogy menjek* 'prt must.npst, that go.subj.1sg' is dominant. In Central Hungary, including the colloquial language of Budapest, both *el kell mennem* and *el kell, hogy menjek* are accepted (although most respondents felt some kind of stylistic difference between the two forms)" (É. Kiss 2009b:2). *Kell* can be used in some dialects with a reduced subjunctive embedded sentence.[54] No example was found for this use among the collected examples. The explanation for this may be that *kellesz* is used primarily in the NEH dialect and in the Subcarpathian dialect, where the aforementioned structure is not preferred by the speakers. However, it is interesting that the '*kellesz*+*that*+conjunctive+subjunctive' embedded sentence occurred in only 1% percent of the sentences, which, according to É. Kiss (2009b), is most common–at least in the case of *kell*–in the NEH and Subcarpathian dialects.

These observed differences in the frequency of the occurrence of *kellesz* as a main verb and as an auxiliary verb, and with different verbal complements motivated a follow-up questionnaire study. The aim of the study was to determine whether the differences in frequency also affect the judgements of native speakers of the '*kellesz*-using' dialects.

37 speakers participated in the questionnaire, all of them were native speakers of the NEH or the Subcarpathian dialects. The respondents are from Szabolcs-Szatmár-Bereg (SZSZB) County (18 people) and Subcarpathia (19 people). The only criterion to be included in the study was that they had to give at least 3 (on a scale of 6) or better for at least 3 sentences containing *kellesz* (based on this, 7 participants were excluded, all of them from SZSZB county). Respondents saw sentences and had to rate them on a scale of 1 to 6 (1=unacceptable, 6=completely acceptable). Based on the results of the study, it

[53]https://www.gyakorikerdesek.hu

[54]We use the terminology of É. Kiss (2009b). By reduced subjunctive embedded sentences, she refers to sentences in which the conjunctive *that* does not appear, but they contain a subjunctive verb form, e.g. *el kell menjek*.

can be stated that there is no significant difference in the acceptability of *kellesz* whether it is used as a main or as an auxiliary verb (t-test: $t(313.71) = 0.51$, $p > 0.05$).

(162) a. Juditnak sokat kellesz tanulni történelemből.
judit.DAT a.lot.ACC must.FUT study.INF history.from
'Judy will have to study a lot form History.' Mean: 4.2

b. Juditnak sokat kellesz tanulnia történelemből.
judit.DAT a.lot.ACC must.FUT study.INF.3SG history.from
'Judy will have to study a lot from History.' Mean: 4.1

c. Juditnak sok idő kellesz, hogy leszokjon a
judit.DAT a.lot time must.FUT that PRT.quit.SUBJ.3SG the
cigarettáról.
cigarette.from
'Judy will need a lot of time to quit smoking.' Mean: 4

The table below illustrates the grammatical judgements (means) given by native speakers who use *kellesz* (30 respondents). The survey included sentences in which *kellesz* was used as the main verb, as an auxiliary verb with infinitival, inflected infinitival, and subjunctive complements. The sentences in which *kellesz* was used with a verb in the subjunctive were significantly less acceptable than those in which *kellesz* had an infinitival or an inflected infinitival complement, or was a main verb. The following table summaries the results; the means are indicated and the standard deviations are in the parentheses.

Infinitival verb	*Inflected infinitival verb*	*Main verb*	*Subjunctive*	*Reduced subjunctive*
3.82 (1.78)	*3.96 (1.62)*	*3.99 (1.75)*	*2.4 (1.66)*	*2.03 (1.47)*

TABLE 8. The acceptability of *kellesz* as a main verb and as an auxiliary verb with different complements.

These findings were used when designing questionnaires for testing the factors that affect the acceptability and the use of *kellesz* with different TO and TP combinations. In order to eliminate any factors that could negatively affect the accountability of such studies, it is crucial to understand the grammatical properties of the structure properly. In the absence of previous studies, the results cited above were used in various studies, first published in Virovec (2019) and Virovec (2022).

In the next sub-chapters, the results of two empirical studies on the use of *kellesz* with different TO and TP combinations and different types of predicates are presented. Based on these studies, it is claimed that temporal factors can affect the acceptability of the structure. However, it is false to believe that temporal factors only can determine whether speakers use/accept *kellesz* or not. To prove this, the results of a production study followed by interviews with dialect speakers are presented. At the end of this section of this dissertation, a formal analysis of the structure is proposed.

5.2. **The findings of two empirical studies on the use of *kellesz*.** Two empirical studies were designed and conducted to test the use of *kellesz*, a questionnaire study (Virovec (2019)) and a production test with follow-up interviews (Virovec (2022)). The first study was conducted in two dialects, the NEH and the Subcarpathian ones, while the second study concentrated on the NEH dialect. Before each of them, a corpus study was conducted, and the results of these served as a basis for the following questionnaire and production studies. The variables were selected and the hypotheses were formed based on the results of the corpus studies. We would like to note that nobody had ever studied how this structure is used before we conducted these studies. It is also important to mention that those speakers who use this structure are often considered to be uneducated (regardless of their actual level of education), and usually get a lot of negative comments on their language usage. Therefore, speakers do not like to admit that they use this structure. Even those who use *kellesz* in their every-day speech tend to say that they never use it when asked. This is the reason why, at the end, we chose to work with regular consultants, who were happy to work with us. We would like to thank each of them for their voluntary participation. We hope that the growing body of works on *kellesz* will help to normalise the use of it.

5.2.1. *The methodology and the hypotheses of the first study.* At the beginning of this subsection, the results of the foregoing corpus study are discussed. During this study, the role of the temporal perspective (present or future tense) and the aspectual nature of the predicate (telic, atelic) were examined. The aim was to determine whether they have an effect on the frequency of the use of *kellesz*. The methodology was as follows. A carefully selected sample of 100 sentences was examined. When choosing the sentences, the main sectional criterion was that it had to be easy (from the context) to decide whether the temporal perspective (TP) was present or future, so mainly forum posts were chosen.

	Present TP	*Future TP*
Kellesz	*13 percent*	*87 percent*

TABLE 9. The proportion of the use of *kellesz* with a present TP and a future one ($N = 100$).

	With atelic predicates	*With telic predicates*
Kellesz	*70 percent*	*30 percent*

TABLE 10. The proportion of the use of *kellesz* with telic and atelic predicates ($N = 100$).

Based on these results, it can be said that in the case of sentences containing *kellesz*, the time perspective was future in the vast majority of the times. The temporal orientation

was always future. *Kellesz* occurred more often with atelic predicates than with telic ones. These results were expected, because the temporal orientation is inherently future with telic predicates (as it can be seen in (148)). Aspect does not and cannot have an effect on the temporal perspective of a modal. If the TP is present, and the futurity of the TO is already unambiguous (e.g. because of the telicity of the predicate), one can expect the use of *kellesz* to be redundant. In all cases, the hypotheses were based on the results of this corpus study, and when we talk about speakers, we always refer to the *kellesz*-users. When evaluating our results, it was always objectively defined whom we consider a *kellesz*-user.

THE HYPOTHESES:

i. The meaning of *kellesz* is different from the meaning of *kell*. In all situations, in which *kellesz* can be used, *kell* can also be used, but there are differences in acceptability. The same is not true the other way around. In certain contexts, for example in (163), *kellesz* cannot be used, while *kell* can be.

(163) *Context: You get a new student job. You like your job, but you always work long hours and have to do overtime. You have already been working for a month when you meet your friend who asks how your new job is.*

Tetszik a munka, de sokat kell/*kellesz
like.NPST.3SG the job but a.lot.ACC must.NPST/must.FUT
dolgoznom.
work.INF.1SG
'I like the job, but I have to work a lot.'

ii. The use of *kellesz*, both as a main verb and as an auxiliary verb, can express the meaning that '*something will become necessary in the future*'. In cases where the TP is future, *kellesz* is always more acceptable than *kell*.

(164) a. *Context: You notice that you have outgrown your sneakers, you can no longer wear them.*

Új tornacipő kell/?kellesz.
new training.shoe need.NPST.3SG/?need.FUT
'I need a new pair of training shoes.'

b. *Context: You are about to finish a book in class. The teacher asks you to bring the new book next week. Your friend is not attending school this week. He calls you in the middle of the week to ask which book is needed next week.*

Új könyv ?kell/kellesz angolból.
new book need.NPST.3SG/need.FUT english.from
'A new book is needed from English.'

c. *Context: The grass in your garden is very long. You look out the window and notice this.*

A füvet le kell/?kellesz nyírni.
the grass.ACC PRT must.NPST/must.FUT cut.INF
'We need to mow the lawn.'

d. *Context: You are watching the weather forecast. They say it will rain a lot next week. The grass isn't long yet, but you think that it will grow a lot with all the rain.*

A füvet le ?kell/kellesz nyírni.
the grass.ACC PRT must.NPST/must.FUT cut.INF
'We will have to mow the lawn.'

iii. The telicity of the predicate does not affect the acceptability of the sentence. The use of *kellesz* is equally acceptable with telic and atelic predicates. Telicity affects the frequency of use.

This last hypothesis can be explained by the fact that *kellesz* is expected to be more acceptable with future TP and the aspect of the predicate can have an effect on the temporal orientation only.

(165) a. *Context: János is sick all week, he is not going to school. He cannot study anything.*

Jánosnak sokat kell/kellesz tanulnia.
János.DAT a.lot.ACC must.NPST/must.FUT study.INF.3SG
'János will have to study a lot.'

b. *Context: János is sick all week, he is not going to school. He cannot study anything.*

Jánosnak meg kell/kellesz tanulnia az anyagot.
János.DAT PRT mustNPST/must.FUT study.INF.3SG the material.ACC
'János will have to learn the materials.'

iv. *Kellesz* can be used with a past reference time.

(166) *Context: You were not there at the evening training session yesterday, because in the afternoon, your mother asked you to help her with the cleaning. You were cleaning all evening. Your teammates want to know where you were last evening.*

Anyukám azt mondta délelőtt, hogy takarítanom
mother.POSS.1SG that.ACC say.PST.3SG in.the.morning that clean.INF.1SG
kell/kellesz, ezért nem tudtam menni.
must.NPST/must.FUT therefore not be.able.to.PST.1SG go.INF
'My mother told me this morning that I would have to clean, therefore I was not able to come.'

5.2.2. *The results of the first study.* The results that are discussed in this sub-part were first published in Virovec (2019). The study in the Subcarpathian dialect was conducted

in the form of an online questionnaire (Google Forms). In SZSZB County, paper-based questionnaires were used. 13 adults from Subcarpathia and 25 13-14-year-old students born in SZSZB County participated in the study. The reason why we did not test adults is that it would have required much more time to find adults who admit that they use the structure. It is true that speakers who use this structure are usually perceived as uneducated (by speakers who speak different dialects). The younger the speaker is, the less likely he/she has spent much time outside the region, and has received negative comments on his/her language use. The control group consisted of 16 speakers from South Transdanubia and Hajdú-Bihar County. All of them were native speakers of Hungarian. The participants in the questionnaire study saw situations, their task was to evaluate the sentences in the given situation. The question was how acceptable they are in the given situations, and how well they express the desired meaning. *Kellesz* was used with infinitival and inflected infinitival complements, since their acceptability–based on my previous questionnaire study (cited in 4.1.2.)–does not differ significantly. Therefore, this should not affect the comparability of the sentences. The task of the speakers was to evaluate the sentences on a scale of 1 to 5. The students from Szabolcs-Szatmár-Bereg County filled out the questionnaire on two different occasions, so there were more situations (than in the online study that was conducted in the Subcarpathian region). Since they had to judge three sentences per situation, it was important that they did not have to process too much information at once. When studying the use of *kellesz*, an "extra" factor is that the participants of the study also speak and hear standard Hungarian. Thus, we think that their preference can be better tested if they see the two structures at once and can choose between them (rather than just evaluate the acceptability of one sentence).

The variables were distributed as follows in SZSZB county:

(1) Out of 10 situations, 1 had a present orientation (besides having present temporal perspective), we tested this situation because we had a preliminary hypothesis that *kellesz* cannot be used when both the orientation and the perspective are present.

(2) 1 out of 10 situations tested the availability of the past reference time. We chose this context because, when providing a formal description of a structure which has not been studied at all, it is very important to clarify whether the reference time is fixed to the time of utterance or whether it can change.[55]

(3) Out of the remaining 8 (Subcharpathia: 6) situations, the perspective was present in 4 (Supcharpathia: 3) cases (but the orientation was future), and in 4 (Subcarpathia: 3) cases, both the temporal perspective and the orientation were future.

[55]We are fully aware of the fact that one context is never enough to draw a final conclusion, but given the complexity of the task, we believed that testing much more contexts would threaten the reliability of the results.

e. In the SZSZB region, we also tested the effect of the telicity of the predicate on the speakers' choice (dynamic/telic, dynamic/atelic, static, main verb).

We are aware that we were only able to use a relatively small number of situations (10 and 8), which may affect the reliability of the results. At the same time, considering that no one has ever tested this structure, and the corpus we were able to build was also limited (it consists of approximately 120 utterances and contains both written and oral utterances), we thought it was important to collect data anyway. Increasing the number of situations was not an option, since the speakers had to evaluate a lot of sentences (are read long contexts).

Besides the test sentences, both questionnaires contained control sentences, too. They were very similar to the test situations, they were completely grammatical in standard Hungarian, but not appropriate in the given context.

(167) *Context: You know that your friend was most likely at home yesterday afternoon. One of your acquaintances was looking for him. He asks you where you think your friend was.*

a. A barátomnak otthon kellett lennie.
'My friend must have been at home.'

b. A barátom otthon volt.
'My friend was at home.'

c. A barátomnak otthon kell lennie.
'My friend must be at home.'

(167c) is grammatical, but not appropriate in the given situation. Those who gave better than 3 for this option were excluded. 3 students (from the NEH dialect) were excluded from the respondents based on the control sentences. They probably did not read the situations or could not understand them. A respondent had to fulfil one more criterion to be considered as a *kellesz*-user, and it was to give a minimum of 3 to at least 2 of the sentences containing *kellesz*. We excluded from the survey–with the exception of the control group–those who were not *kellesz*-users based on the above-mentioned criteria. 17 of the 22 students and 13 of the 13 Subcarpathian speakers were classified as *kellesz*-users. We tested our hypotheses based on their answers.

The results:

- The effect of different TP and TO combinations on the acceptability of *kellesz*:
  - [*H*1] *Kellesz* is unacceptable if both the TO and the TP are present. The meaning of *kellesz* differs from the meaning of *kell*. There are contexts in which *kell* can be used, while *kellesz* cannot. (e.g. *Context 1*)

– [$H1$] *Kell* is significantly more acceptable than *kellesz* with present TP and future TO (t-test: Szabolcs-Szatmár-Bereg County: $t(86.4) = 4.78$, $p < 0.05$, Subcarpathia: $t(36.8) = 2.05$, $p < 0.05$). (*Context 2*)
– [$H2$] *Kellesz* is more acceptable than *kell* whenever the TP is future (t-test: Szabolcs-Szatmár-Bereg County: $t(100) = -2.62$, $p < 0.05$, Subcarpathia: $t(50) = -1.999$, $p = 0.05$) meaning that *p will be necessary in the future of the time of speaking. (Context 3)*

(168) a. *Context 1*: *Peter has a lot of exams. He has already passed a few, but there are three more exams to take, he is very exhausted.* (*kell*/*kellesz*)

b. *Context 2*: *Peter just failed his last exam and now he has to study for the retake exam.* (*kell* > *kellesz*)

c. *Context 3*: *Peter is on holiday, but he is going to start his first year at a prestigious law school when he comes back.* (*kell* < *kellesz*)

Péternek sokat kell / kellesz tanulnia.
Peter.DAT lot.ACC must.NPST / must.FUT study.INF.3SG
'Peter has to (will have to) study a lot.'

	Present TP	*Future TP*
Kell	*4.43 (0.96)*	*3.43 (1.42)*
Kellesz	*3.25 (1.46)*	*4.09 (1.13)*

TABLE 11. The acceptability (mean and standard deviation in the parenthesis) of *kell/kellesz* with different TP in SZSZB County.

	Present TP	*Future TP*
Kell	*4.38 (0.9)*	*3.5 (1.6)*
Kellesz	*3.57 (1.8)*	*4.31 (1.3)*

TABLE 12. The acceptability (mean and standard deviation in the parenthesis) of *kell/kellesz* with different TP in the Subcarpathian dialect.

• The effect of the different aspectual properties on the acceptability of *kellesz*:
– [$H3$] No statistically significant difference was found in the acceptability of *kellesz* with telic or atelic predicates. The results of the questionnaire study confirmed our hypothesis, according to which *kellesz* is equally acceptable when used together with atelic or telic predicates. The temporal perspective (TP) was evenly distributed (present and future) so it could not affect the results (t-test: SZSZB: $t(66) = 1.37$, $p = 0.17$).

The possible effect of the telicity of the predicate was tested only in the NEH dialect. The proportions of the sentences with telic and atelic predicates with future/present TP had to be equal, and 8 test sentences would have been too low to get reliable results.

	Atelic	*Telic*
kellesz	4.1 (1.1)	3.8 (1.2)

TABLE 13. The acceptability (mean and standard deviation in the parenthesis) of *kellesz* with atelic or telic predicates.

- [*H*4] The last hypothesis was about the possibility of the use of *kellesz* with a past reference time. The results were mixed, the speakers of the Subcarpathian dialect accepted *kellesz* with a past reference time, while speakers of the NEH dialect did not.

	Szabolcs-Szatmár-Bereg County	*Subcarpathia*
kell	*4.6*	*3.9*
kellesz	*2.8*	*4.15*

TABLE 14. The acceptability (mean) of *kellesz* with a past reference time.

Another important result of the questionnaire is that *fog kelleni* was not accepted by any of the groups. The only exception was the case in which *kell* was a main verb and the TP was future. The averages can be seen in the following table.

	Szabolcs-Szatmár-Bereg County	*Subcarpathia*
kell	4 (1.4)	4.19 (1.36)
kellesz	3.5 (2)	3.9 (2.7)
fog kelleni	1.7 (1.5)	1.15 (0.3)

TABLE 15. The overall means (and standard deviation in the parenthesis) given for the structures.

The initial aim–besides comparing the acceptability of *kellesz* to *kell*–was to compare the acceptability of *kellesz* to *fog kelleni*, but it seemed to be impossible because of the low general acceptance of the structure. One of the reasons why speakers reject the structure *fog kelleni+V+INF* could be that, in Hungarian, it is unusual to have two infinitives (whether inflected or not) within the same clause.

The results of the study provided preliminary evidence for the claim that *kell* is more acceptable than *kellesz* in contexts where the temporal perspective (TP) is present, but with a future temporal perspective it is preferred to *kell* in the *kellesz*-using dialects. However, it can be argued that the frequency of use is much more important than the

acceptability, since *kell* is acceptable in standard Hungarian even with a future TP and the speakers of the dialect are exposed to standard Hungarian, therefore they are more likely to find this use of *kell* acceptable. This is one of the reasons why the use of production tasks and interviews are particularly important when trying to investigate a structure that is only used in certain dialects and when we try to compare and contrast it to the standard language use. The "disadvantages" of testing sentences in contexts by a questionnaire that uses a scale are discussed in 4.1.7. They are generally true for such questionnaire studies, therefore, we do not feel the need to repeat the arguments that we have already made there.

Despite its clear shortcomings, we thought that it is crucial to briefly report the results of this questionnaire study. This study – being the first – greatly contributed to our understanding of the use of the structure. However, it concentrated on temporal and aspectual factors only, and we know that future-referring morphemes can develop pragmatic functions (uncertainty, delaying effect). In order to identify further variables that could be relevant (besides the temporal and aspectual factors) in the case of *kellesz*, we continued our "investigation" by an additional corpus study. Factors that were taken into consideration are the following: the strength and type of the evidence (direct or indirect) the speaker has, the presence/absence of uncertainty in the contexts, delaying effect, and the degree of the commitment of the speaker. Based on the results of this corpus study, an empirical study (consisting of a production task and follow-up interviews) was conducted (Virovec (2022)). The following two sub-chapters present the findings of the corpus study and the aforementioned empirical study.[56]

5.3. **Collected data before the second study.** 50 contexts were examined and evaluated. In order to find variables that may be relevant in addition to the temporal factor, forum posts collected from the Internet were examined. The retrievability of the context was crucial here. One cannot evaluate semantic and pragmatic factors without knowing the context of the utterance. In the case of the contexts, the focus was not only on the temporal relations, but we also tried to single out all other significant factors that could have an effect on the usage of the structure.

The distinguished uses:

- The uses of *kellesz* with Future TP:
  - The speaker predicts that in our world things will turn out in such a way that the circumstances triggering the necessity of the event e will be present at a future time t, so e will be necessary at t.

[56]Here we would like to note that the studies that we conducted during those 4 years that passed between the studies greatly contributed to our understanding of the use of Hungarian future morphemes. This additional knowledge made it important to continue our work on *kellesz*.

(169) *Context: Everyone says that we will spend the whole summer at school. I wonder why we need to deal with digital education (now) if we will have to learn it all over again in the summer anyway. Of course, this is not the opinion of my fellow students, but older, middle-aged people say so.*

Mi értelme a hétfőtől kezdődő digitális
what point.POSS.3SG the monday.from beginning digital
oktatásnak, ha nyáron suliba kellesz járni?
education.DAT if summer.on school.to must.FUT go.INF

'What is the point of digital education starting on Monday if we will have to go to school in the summer anyway?'[57]

Based on the fact that what the majority of adults claim usually happens, the speaker comes to the prediction that the circumstances will be such that at a future time t, it will be necessary to go to school in the summer, therefore they will go to school.

– *Kellesz* is also used when the speaker has strong evidence (coming from a reliable source) that the scope proposition will be necessary at a future time.

(170) *Context: I just started at my new school. I study English and it is a bit difficult. Could you help me, please?*

Angolból el kellesz mondanunk egy szöveg
english.from PRT must.FUT say.INF.1PL a text
tartalmát.
contents.POSS.3SG.ACC
'We will have to summarize the contents of a text in an English class.'

The speaker claims that he knows from a reliable source (the teacher told them) that in one of the following lessons, they will be asked to summarize the content of a text.

- The uses with PRESENT TP (AND FUTURE TO):
  – *Kellesz* is used if the necessity of the scope proposition has been inferred from indirect evidence. Here, the speaker asks only for the opinion of the hearer, and will take any answers as such.

(171) *Context: During gardening, a large tree branch fell on my arm. Initially, it did not hurt, but a few days later it began to swell and hurt. I am going to go back to the doctor's next week.* **What do you think**? **Is it possible that they will operate it**?

[57] https://www.gyakorikerdesek.hu

Műteni kellesz a kezemet?
operate.INF must.FUT the arm.POSS.1SG.ACC?

'Will they have to operate my arm?'[58]

The speaker does not have enough information to decide whether a surgery is necessary or not. The question whether or not his hand needs to be operated is already settled in our world at the time of speaking, since the accident has already happened and his arm is in a condition that either indicates the necessity of a surgery or not. The speaker paraphrases the sentence '*Is it possible they will operate it*? as '*Műteni kellesz a kezemet*?' 'Will they have to operate my arm?'. The fact that speakers use *kellesz* in situations like this strengthens the connection between epistemic modality/inferentiality and futurity. Let us consider the following examples. As the type/strength of the evidence changes, the use of *lesz* 'will.be' and *kellesz* 'must.fut' becomes felicitous.

(172) a. *Context: You look out the window and see the postman standing in front of the house and pressing the bell.*

#Ez a postás lesz.
this the postman will.be
'This will be the postman.'

b. *Context: The postman usually comes around 12:30 every day. It's 12:25, the bell rings.*

Ez a postás lesz.
this the postman will.be
'This will be the postman.'

(173) a. *Context: Your roommate is very careless. He had a party last night. The apartment is so messy you cannot even go out of your room.*

??Ki kellesz takarítani a házat.
PRT must.FUT clean.INF the house.ACC
'The house needs to be cleaned.'[59]

b. *Context: Your roommate is very careless. He threw a huge party last night, even though you didn't go out this morning, you think that it is likely that there will be a huge mess outside.*

Ki kellesz takarítani a házat.
PRT must.FUT clean.INF the house.ACC

[58]https://www.gyakorikerdesek.hu
[59]This is my own introspective judgment as a dialect speaker (NEH dialect).

'The house needs to be cleaned.'

- The use of *kellesz* can have a special 'effect', it can make an utterance politer.

(174) *Context: You are buying some goods at a store. The shop assistant asks you to place the goods on the conveyor belt. The shop assistant says to you*:

Fel kellesz tenni az árut a szalagra.
PRT must.FUT put.INF the goods.ACC the belt.to
'You must put the goods on the conveyor belt.'[60]

What all the uses of *kellesz* (except for its special 'effect') have in common is that the speaker has no direct evidence that entails the necessity of the event at the time of speaking. This is trivially true if it has a future temporal perspective, since in that case, the event is not necessary at the time of speaking (so, its necessity cannot be verified). However, in the case of a present temporal perspective and future temporal orientation, it is only true when the speaker infers the necessity of the event from indirect evidence. To determine how the strength of the evidence, the commitment of the speaker, and the temporal variables affect each other, and which factors influence the speakers the most, an empirical study (consisting of a production study and follow-up interviews) was conducted. The hypotheses are based on the results of the corpus study that are discussed above, and also on the results of the previously discussed questionnaire study (4.2.2.). As it is mentioned above, *kellesz* is used to make an utterance politer. Therefore, in addition to the originally planned variables, a separate part of the study was devoted to testing this. In the next sub-chapter, we describe its methodology, the participants, the design, the hypotheses and the results.

5.3.1. *The methodology and the hypotheses of the second study.* The results of this study were first published in Virovec (2022). 27 speakers participated in the production study and the follow-up interviews. 5 speakers were excluded, because they did not understand/did not pay attention to the situations. Out of the remaining 22 speakers, 13 speakers proved to be *kellesz*-users. The answers of the other 9 speakers served as a basis of comparison. The mean age of the participants was 33.55 years (median: 25.5, range: 55). The youngest participants were two 12-year-old girls, and the oldest participant was a 67-year-old man.

[60]This is an authentic example collected from Szabolcs-Szatmár-Bereg County (oral communication).

age group	*number of participants*
0-19	*3*
20-29	*12*
30-39	*0*
40-49	*2*
50-59	*0*
60-69	*5*

TABLE 16. The number of participants in each age group.

The 13 *kellesz*-users are all from the NEH dialect, from Szabolcs-Szatmár-Bereg County.[61] 4 of the 9 speakers who did not qualify as *kellesz*-users are from Szabolcs-Szatmár-Bereg, 4 of them are from Hajdú-Bihar, and 1 is from Jász-Nagykun-Szolnok County. The reasons why their answers were evaluated too are the following. The first was to see if / in which contexts *kell* can express the same meaning as *kellesz* (for non-*kellesz*-users). The second was to compare and contrast the words and expressions that the speakers of the groups (*kellesz*-users, and those who do not use *kellesz*) associate with the use of *kell*.

There were two parts of the experiment, a production study and follow-up interviews.

(1) PRODUCTION STUDY: We read out load situations (18 situations altogether) and the participants had to say a sentence in the given situation containing a 'form of' *kell*. They were given an example with a gap, but they were asked to modify the sentence in a way that sounded most natural to them. They were also instructed to imagine a situation in which they talk to their friends and pay careful attention to the situation.

(2) THE FOLLOW-UP INTERVIEW: The participants saw their answers, which were grouped this time according to the variables that were used in the experiment (the exact order, and the grouping of the sentences together with the original, Hungarian comments of the speakers can be found in the Appendix). They were asked to comment on their original choices, to modify the situations in order to make another option possible/natural, and they were also asked to explain which elements of the situations allow/require the use of *kellesz* (those who used *kellesz*). The situations were not always straightforward and specific, the aim was to see how they would complete the situations to make the use of *kell* or *kellesz* felicitous.

[61] 5 of the speakers are from Mátészalka (1 speaker was born in Kaposvár, but has been living in Mátészalka for 45 years), 2 from Ököritófülpös, 1 from Kisvárda, 1 from Penészlek, 1 from Szakoly, 1 from Kocsord, 1 from Nagydobos, and 1 from Baktalórántháza. There are 13 districts in Szabolcs-Szatmár-Bereg County, 5 of which were represented by at least one speaker (Mátészalka district: 9 speakers, Baktalórántháza district: 1 speaker, Kisvárda district: 1 speaker, Nyírbátor district: 1 speaker, Nagykálló district: 1 speaker).

The study was conducted in person or online due to the pandemic (using Google Meet), each conversation was recorded (the length of the recorded materials was around 30-40 minutes each). All the interviews were transcribed and expressions that were associated with the use of *kell* and *kellesz* were collected in order to highlight features of the contexts that allow/facilitate/require the use of *kellesz*.

The aims of the study were to better understand the use of *kellesz*, to define the conditions (the features of the given contexts) that make the use of *kellesz* felicitous, and to prove my hypothesis that besides the temporal factors (present/future TP), the strength of evidence that supports the necessity of the scope proposition, and the speaker's commitment also affect the acceptability and the frequency of the use of *kellesz*.

In the next sub-chapter, the hypotheses and results of the study are discussed in detail. It is shown that the use of *kellesz indicates uncertainty, and it is connected to a lesser degree of speaker's commitment, weaker, less factual, less definite than the use of kell*. The results of the study further strengthen the hypothesis that there is a strong connection between epistemic modality/inferentiality and futurity. The use of future-referring morphemes is connected to being unsure, having indirect evidence, inferences, supposing, but not knowing something, and these features mentioned above are also characteristic features of epistemic modality.

5.3.2. *The hypotheses and results of the second study.* In this sub-chapter, both the hypotheses and the results of the study are discussed. First, the hypotheses are stated, then all the results are discussed with comments of the native speakers.

HYPOTHESES:

(H1) *Kellesz* 'must.fut' cannot be used if both the TO and the TP are present (something is necessary and it is happening at present).

(H2) The use of *kellesz* is acceptable with present TP and future TO (the event is necessary at present, but the event time of the event is in the future of the utterance time), but it is only preferred to *kell* if the necessity of the scope proposition is inferred from indirect evidence.

(H3) We expected *kellesz* to be preferred to *kell* whenever the TP is future.

(H4) *Kellesz* can have the future-in-the-past reading.[62]

The first group of sentences dealt with the our first hypothesis. In their case both the TO and the TP were present. Regarding the first hypothesis, dialect speakers agreed that *kellesz* cannot be used if something is necessary and (already) happening at present (PRESENT TP, PRESENT TO). Only one speaker used *kellesz* in these sentences (7.7 percent). He (and a few other speakers) argued that *kellesz* can be

[62]Virovec (2019) got mixed results, this reading was rejected by speakers from the NEH dialect and accepted by speakers from the Subcarpathian dialect.

used (only) if you see these situations as something that is in progress. So, it will be particularly (exponentially) true in the future that the scope proposition is necessary. One example is the following.

(175) *Context 1 (Present TP and TO, general statement): The cost of living has been very high for a while and life is very expensive nowadays. In circumstances like these, everybody works a lot to make ends meet.*

A mai világban mindenkinek sokat kell/??kellesz
the today's world.in everybody.DAT lot.ACC must.NPST/must.FUT
dolgoznia, hogy ilyen árak mellett megéljen.
work.INF.3SG that like.that price.PL near PRT.live.SUBJ.3SG

'In today's world, with these prices, everybody has to work a lot to make a living.'

Selected comments of the dialect speakers:

(1) "*I strongly believe that, in these situations, kellesz cannot be used, it would not make any sense to me.* " (Participant number 10)
(2) "*Kellesz is absolutely unacceptable in these situations, these are general statements. I do not think that these statements are about the future, these are general, true at present. You cannot use kellesz in these situations.*" (Participant number 18)
(3) "*The reason why I think kellesz should be used in these situations is that it will be exponentially true in the future that these [scope propositions] are necessary.*" (Participant number 7)

The following table contains the words that were most frequently associated with the use of *kell* and *kellesz* during the interviews.

group	*kell*	*kellesz*
kellesz-users (N = 13)	general, true at present (now), obligatory (absolutely necessary)	true in a particular situation, exponentially true in the future, suggestion (what you will need to do in order to survive)
non-users (N=9)	general, necessary at present (right now), strong, obligatory, a statement (for sure), necessary and happening now	–

TABLE 17. The words and phrases speakers associate with the use of *kell* and *kellesz* in contexts like *Context 1.*

As we can see, the majority of the speakers cannot accept *kellesz* in this usage. Those who can, they associate a different interpretation with it. The "exponentially true" meaning component is present in their interpretation. They argue that, by using *kellesz*, the speakers can express that the proposition might be true at present, but will be even more prominent in the future. An acceptability judgement test is unable to reveal this difference. When studying meaning, it is often not as straightforward as asking whether a sentence is grammatical or not. A sentence might be acceptable in a situation, but it can convey a sightly different meaning or even implicature. Based on the interviews, it can be concluded that *kellesz* is generally unacceptable whenever both the TO and the TP are present. However, at least for some speakers, if *kellesz* is used in these situations, this usage can imply that the speaker wants to emphasise that the truth of the proposition will be even more prominent in the future.

The second group of sentences dealt with our second hypothesis. In their case, the TP was present and the TO future, and the evidence that triggered the necessity of the scope proposition was strong and direct. When investigating the second hypothesis, the results were mixed. Only 4 speakers used *kellesz* when direct evidence was defined in the context that the scope proposition is necessary. Two of the speakers who used *kellesz* in these situations argued that the future TO licenses the use of *kellesz*. However, most of the participants agreed that every time you want to postpone the necessity of the event or the event itself, you should use *kellesz* (the use of *kellesz* has a *delaying effect*). If you use *kell*, it means that you surely have to do something and you have to do it now. *Context 2* is an example for the first use (direct evidence entails the necessity of the proposition), while *Context 3* is an example for the delaying effect of *kellesz*. In the case of the former, 50% of the *kellesz*-users used *kell* and only 31% used *kellesz*, while 81% of them used *kellesz* in the latter case.

(176) *Context 2 (present TP, future TO, direct evidence): While traveling to an important wedding, your car stops, you see that you have run out of gas. You say*:

Benzint kell/?kellesz hozni a kútról, mert
gas.ACC must.NPST/must.FUT bring.INF the gas.station.from because
így nem tudunk tovább menni.
this.way not be.able.to.NPST.1PL further go.INF

'We have to bring gas from the gas station, because we cannot go any further like this.'

Selected comments of the dialect speakers:

(1) " *You have to go get some gas immediately, that is why it is kell.*" (Speaker number 5)

(2) " *If you want to continue your journey, you need gas immediately. Kellesz is like, in the future, at some point, you will need something.*" (Speaker number 20)

(3) " *We are talking about the condition that is necessary to complete the process, which will happen in the future [that you continue your journey]. We want to continue our journey, but it will not happen [at the time of speaking], only after we go to the gas station.*" (Participant number 7)

group	*kell*	*kellesz*
kellesz-users (N = 13)	actual, immediate, definite, at present (now), urgent need, cannot be postponed, you need it here and now	on-the-spot decision, sometime in the future, not so urgent, not immediately
non-users (N = 9)	necessary at present, for sure, at present, actual, important, urgent	–

TABLE 18. The words and phrases speakers associate with the use of *kell* and *kellesz* in contexts like *Context 2*.

(177) *Context 3 (present TP, future TO, direct evidence/possible delaying effect): You have been having horrible nightmares, therefore you cannot do your job properly / you are doing poorly at school, you became very unorganized, and you are ill all the time. You say*:

Megint el kell / kellesz mennem egy pszichológushoz, mert
again PRT must.NPST / must.FUT go.INF.1SG a psychologist.to because
olyan borzasztó lelkiállapotban vagyok.
like.that horrible state.of.mind.in be.NPST.1SG

'I (will) have to go to a psychologist again because I am in a horrible state of mind.'

Selected comments of the speakers of the dialect:

(1) "*If we take a look at the situation in which you need to go to a psychologist (Context 3), if you use kell, that is clearly more determined. However, if you say kellesz, in that case, you haven't really brought yourself to go to the psychologist, you will go, if it will be that bad.*" (Participant number 10)

(2) " *Going to the doctor's or to a psychologist is like, you know that you have to [hesitates], but you really want to postpone it, I say kellesz.* (Participant number 5)

Based on the interviews, one can see that it is very difficult to define a present TP in the contexts. Everything depends on the speaker's interpretation of the situation. Even if the conditions that trigger the necessity of the scope proposition clearly present at the time of the utterance, one can still think that the event time of e (the event expressed by the scope proposition) can be postponed. The reasons are usually fairly personal, the

group	*kell*	*kellesz*
kellesz-users (N = 13)	definite/clear-cut, immediate, in the near future, it has been decided, cannot be postponed, concrete (you know the details, you have a plan), important, urgent	can be postponed, you are not fully committed, you might reconsider your decision (there can be another solution and the S is aware of that), indefinite (much weaker than *kell*), not concrete or urgent
non-users (N = 9)	necessary at present, for sure, cannot be postponed	–

TABLE 19. The words and phrases speakers associate with the use of *kell* and *kellesz* in contexts like *Context 3* (postponed necessity, delaying effect).

majority of the speakers associated '*going to a psychologist*' with negative emotions, and wanted to postpone it. They argue that it is difficult to pronounce the word *kell* in a situation like this, because it makes the necessity very serious and imminent (, which they clearly wanted to avoid).

There was (also) a test situation that was not concrete, in this situation, it was stated that the car is in a very bad condition, but no other information was included. We chose this to see how the speakers complete this situation to make the use of *kell* or *kellesz* felicitous.

(178) *Context 4 (present TP and future TO, incomplete situation): Your car is in a very bad condition. You say*:

Új autót kell/kellesz vennem.
new car.ACC must.NPST/must.FUT buy.INF.1SG

'I (will) have to buy a new car.'

Comments of the dialect speakers:

(1) "*In the case of the car situation (Context 4), the use of kellesz can be acceptable, but if you use that, you indicate that the car is bad, but can be used a little longer.*" (Participant number 10)

(2) "*In the case of the car situation (Context 4), it depends on how bad the current condition is, if there is another solution at present (for example, it can be repaired), kellesz is acceptable, too.*" (Participant Number 5)

(3) "*If my car is in a bad condition, I need to plan to get a new one. However, I do not know when I can buy a new one. I feel that kellesz is not concrete. If I say kell, it is more concrete, it means that I go and I buy a new car, but if I only say kellesz, it means that I will do it sometime in the future. Kell is more concrete, while kellesz is not concrete at all.*" (Participant number 18)

The speakers argue that both the TP (if it is really necessary now, it is present, if you can use the car a little longer, it is future), and the commitment of the speaker together determine their choice between the two structures. The use of *kell* indicates that I will definitely buy a new car in the near future, while the use of *kellesz* implies uncertainty.

In the case of the third group of sentences the TP was still present and the TO future. The evidence that p is necessary was inferred. These sentences dealt with the second part of the second hypothesis. The situations that tested if the type of the evidence affects the speakers' decisions were designed the following way. In the case of the first two, the prejacent was inferred entirely from indirect evidence, while in the case of the third situation, the speaker saw something that could possibly indicate the necessity of the scope proposition, but some kind of inference was always needed. The evidence alone did not entail the necessity of the proposition. dialect speakers argued that the use of *kell* fails to indicate the speaker's uncertainty, which must be expressed in the case of these situations. However, the use of *kellesz* expresses the speaker's uncertainty, it emphasises that the proposition is only a hypothesis about the present. It also indicates that the prejacent is only the opinion of the speaker, and not a known fact. In the case of *Context 6*, 81% of the speakers used *kellesz* and none of them used *kell*, while in the case of *Context 7*, 70% used *kellesz* and 15% used *kell*.

(179) *Context 6 (present TP, future TO, indirect evidence): Your friend was partying all last week, he did not study anything for his exam. You haven't talked to him since then, but you could hardly imagine that he could have passed the exam. You say*:

Péternek javítóvizsgát #kell / kellesz tennie
péter.DAT makeup.exam.ACC must.NPST / must.FUT take.INF.3SG
menedzsmentből, olyan állapotban és tudással nem
management.from like.that state.in and knowledge.INST not
mehetett át.
go.MOD.PST.3SG PRT

'Peter probably has to retake his management exam, given his focus and knowledge, he could not have passed the exam.'

(180) *Context 7 (present TP, future TO, indirect evidence): You saw your friend's accident, which seemed very serious. It is also likely that she has an open fracture. You have not called her because you do not want to disturb anybody at the hospital. You say*:

Katit műteni ??kell / kellesz, szerintem ilyen súlyos
kati.ACC operate.INF must.NPST / must.FUT, in.my.opinion like.this serious
sérüléssel jó, ha csak egyszer.
injury.with good if only once

'Kati must be operated, in my opinion, she is lucky, if only once.'

Selected comments of dialect speakers:

(1) "*In the last case [Context 7], you are quite sure that she needs to be operated, because if it is an open fracture, it is quite possible that there will be an operation. In the other cases [Context 6], there is some doubt in what I say [I am not sure], in those cases, kellesz is better.*" (Participant number 8)

(2) "*In the case of [Context 6], you cannot use kell, because you are not sure that he has to, that is why you can only use kellesz. In the case of the last situation [Context 7], it [your choice] depends on how sure you are, I would not use kell, because I do not know much about injuries.* (Participant number 10)

(3) "*In the case of [Context 6], I do not know the results. I think that we should not use kell in this case, we can only use kellesz, because this is still very uncertain. Kell can only be used if you know concretely that he failed. I only hypothesize [that he failed], it's not one hundred percent, that is why kellesz should be used. In the last case [Context 7], you are not sure, again. You use kellesz, it is possible, but you do not know for sure because you are not a doctor, you do not know enough to be able to draw a conclusion, to know if she must be operated or not.*" (Participant number 20)

group	*kell*	*kellesz*
kellesz-users (N = 13)	knowing something for sure, certainty, having direct evidence, definite, clear-cut, fact, one hundred percent	uncertainty, only an assumption/presupposition, hypothesize, less certain, inference, foreknowledge, only an opinion, possibility, there is a condition in the context
non-users (N = 9)	fixed, you know it for sure, necessary in the near future/now, stronger evidence, the S can decide if it's necessary	–

TABLE 20. The words and phrases speakers associate with the use of *kell* and *kellesz* in contexts like *Context 6 and 7* (the necessity of the scope proposition is inferred).

Non-*kellesz* users used the following expressions in the case of these situations: *kell-het* 'may need', biztosan *kell majd* 'surely have to', talán *fog kelleni* 'perhaps it will be necessary', and valószínűleg *kell* 'probably have to'. Both Kiefer (2005) and Kugler (2010) call the underlined adverbs *inferential-epistemic modal adverbs.* This result further

strengthens the hypothesis that there is a strong connection between epistemic modality and future-time reference.

The fourth and fifth group of sentences were the ones in which both the TP and the TO were future. The main difference between the two groups was that in the case of the former, the speaker predicted that the event will be necessary in the future, while in the case of the latter, the speaker had strong evidence that e will be necessary. The sentences were designed to provide evidence for the truth of our third hypothesis. *Kellesz* was expected to be preferred to *kell* whenever the TP is future ([H3]). The results were mixed. Speakers of the dialects argued that the use of *kellesz* in these situations expresses (and even emphasizes) that the scope proposition is not necessary at present, it will be necessary only in the future. Whenever the speakers predicted that the prejacent event will become necessary in the future, 85% of them used *kellesz* and only 5% used *kell*. However, when the speakers had strong evidence coming from a reliable source that the scope proposition will be necessary in the future, only 42% of the speakers used *kellesz* and 35% used *kell*. In the case of [Context 10], the use of *kell* emphasizes that the scope proposition is certainly needed, it makes the statement stronger.[63] However, the use of *kellesz* foregrounds that the scope proposition is not necessary now, it will be necessary in the future. If we use *kellesz*, the statement is weaker. Speakers of the dialects argued that because of the strength of the evidence, *kell* (and/or *kell majd* 'must later') is as good as *kellesz* even if the perspective time is future.

(182) *Context 9 (future TP and TO, prediction): As a negative result of the global pandemic, the number of face-to-face meetings has decreased. Many people even work from home. You are sure that there will only be online classes at the university in the future. You say*:

Majd meglátjátok, hogy jelenléti oktatás sem lesz. Valami
later PRT.see.NPST.2PL that face-to-face education not be.FUT something
mást kell / kellesz kitalálnunk szocializálódásra.
else.ACC must.NPST / must.FUT PRT.find.INF.1PL socialization.for

'Watch out! There will not be face-to-face classes. We (will) have to figure out something else to socialize.'

[63]This result can further strengthen the hypothesis that the future-referring use of the Hungarian non-past can and does emphasize that the speaker is sure that the event will happen at a future time t'. In this case, the necessity of the proposition can be decided at the time of speaking. For example, in *[Context 10]*, it is decided at the time of speaking that p will be necessary at t' (and the speaker has strong evidence that it is the case). It is decided at the time of the utterance what will happen, and it is similar to reading out a schedule. You talk about an existing plan.

(181) A jövő héten hétfőn, egy verset kell felmondani a tanárnőnek, aztán egy hosszabb tesztet töltünk ki, majd le kell futni 5000 m-t testnevelés órán.
'Next week on Monday, we have to recite a poem to the teacher, then we fill out a longer test, and then we have to run 5000 m in physical education class.'

group	*kell*	*kellesz*
kellesz-users (N = 13)	emphatic, strong, (already) necessary at present, important, right away, (more) definite	forethought, necessary (sometime) in the future, only a plan, it can wait, a bit ironic, weaker (even nicer, not so serious)
non-users (N = 9)	necessary for sure, right now / at the moment, unconditional, absolutely necessary, urgent, important, strong, more emphatic	–

TABLE 21. The words and phrases speakers associate with the use of *kell* and *kellesz* in contexts like *Context 9* (predicting the necessity of p).

Selected comment of the speakers of the dialect:

(1) "*These are not necessary at present, they will be necessary in the future, so you should use kellesz and not kell.*" (Participant number 7)

(183) *Context 10 (future TP, TO, but direct evidence/decided, part of a schedule): You will be expected to recite a text at school next week. You say*:

Az iskolában ezt a szöveget el kell/kellesz mondanunk
the school.in this.ACC the text.ACC PRT must.NPST/must.FUT say.INF.1PL
fejből.
head.from

'We will have to recite this text at school.'

Selected comment of the speakers of the dialect:

(1) "*In the last situation [Context 10], kellesz implies that it will be necessary a week from now, kell, on the other hand, implies that everyone definitely has to know this by heart. If you say kell, it is more important, kellesz is much softer (weaker), and it also refers to the future.*" (Participant number 20)

group	*kell*	*kellesz*
kellesz-users (N = 13)	at present, no other choice, strong, certain, obligatory, very important, defined, generally necessary (general situation)	it is not at present, but in the future, specific situation, much softer, weaker
non-users (N = 9)	generally necessary, obligatory, strong, no other choice)	–

TABLE 22. The words and phrases speakers associate with the use of *kell* and *kellesz* in contexts like *Context 10* (strong evidence that p will be necessary).

As we can see that speakers do not only consider the temporal structure of the situation, they take the evidence type into account. The use of *kellesz* is associated with both futurity and uncertainty. We can clearly see that sometimes they are contradict each other (e.g. when we talk about a scheduled future necessity), in that case, the speaker usually base their choice on what they intend to emphasise (the futurity, or the certainty of the necessity of the event).

The sixth, and last group of sentences concentrated on the availability of the past reference time. The last hypothesis was about the possibility of the future-in-the-past reading in the case of *kellesz*. The previous study (discussed in 4.2.2.) reported mixed results. This reading was rejected by speakers of the NEH dialect and accepted by speakers of the Subcarpathian one. This study was conducted in the NEH dialect. Over

half of the speakers (54%) used *kellesz* in the contexts in which a past reference time was defined by the main clause. This percentage was even higher in sentences that contained *kellesz* as an auxiliary verb (63%). The follow-up interviews pointed to a very interesting phenomenon. Certain words in the sentence can indicate definiteness, and therefore the speakers are more likely to use *kell*, and more importantly, less likely to use *kellesz*. (This word is *végképp* 'utterly' in the case of [Context 11]). This phenomenon further supports that the certainty of the speaker is a stronger factor than the temporal structure of the sentence (future TP). In the second case [Context 12], speakers argued that the choice between *kell* and *kellesz* can depend on how sure the speaker was that s/he had to cancel the meeting and it depends on the speaker's condition at the reference time. It supports that these sentences can be interpreted as having present TP (something is necessary at the reference time), or as having future TP (something will be necessary at the future of the reference time). Knowing that something is necessary at present is connected to definiteness, factuality and therefore to the use of *kell*. Being unsure if something happens is connected to future-time reference, having indirect evidence, supposing but not knowing something, and the use of *kellesz*. "*If you use kellesz, that is not so sure, it does not really have to happen.*" (Participant number 7)

(184) *Context 11: You had been selling your car for a long time when your neighbor scratched its side a week ago, so you were very angry. However, the day before yesterday, you sold your car unexpectedly, so you are no longer angry with him. You say*:

Leszidtam a szomszédomat, hogy így már végképp nem kell / kellesz senkinek sem az autó, de végül mégis kellett, mert tegnap eladtam.
PRT.scold.PST.1SG the neighbor.POSS.1SG.ACC that this.way already fully not need.NPST.3SG / need.FUT nobody.for not the car but finally still need.PST because yesterday PRT.sell.PST.1SG

'I scolded my neighbor, told him nobody would want my car this way, but, after all, somebody wanted it, because it was sold yesterday.'

(185) *Context 12: You had been feeling unwell all last week. You had already been thinking about canceling this week's meeting, but in the end you got better. You say*:

Azt mondtam mindenkinek, hogy le kell / kellesz mondani a találkozót, de hirtelen annyit javultam, hogy itt vagyok.
that.ACC say.PST.1SG everybody.for that PRT must.NPST / must.FUT say.INF the meeting.ACC but suddenly that.much.ACC get.better.PST.1SG that here be.NPST.1SG

'I told everyone I would have to cancel the meeting, but suddenly I improved so much that I am here.'

Selected comments of the native speakers:

(1) "*In the first situation [Context 11], kellesz is acceptable. I had a fear, a feeling that I will have to cancel the appointment, but I am here after all. If you use kell, it is more definite, I feel that it is more definite that I have to cancel the meeting, but in the end, I didn't have to. The word végképp 'after all' is very definite, that is why I did not say kellesz, 'végképp kellesz' is not good.*" (Participant number 5)

(2) "*I was talking about something of the future at a time in the past, so kellesz is good, and the fact that it [the car] was needed [Context 11] does not affect what I previously said. This is also true for the second one [Contex 12], the second part of the sentence does not affect the first. In the past, I thought that something would happen in the future.*" (Participant number 7)

(3) "*Because of végképp 'utterly', I think that the speaker communicates a fact, kellesz is weaker (so it cannot be used in [Context 11]). It only sounds good in the second situation [Context 12].*" (Participant number 17)

(4) "*In the first sentence, there is the word végképp 'utterly', and it is definite, it implies that the statement is definite.*" (Participant number 18)

(5) "*When you said the sentence, you had not sold the car, that was about the future, so either fog kelleni or kellesz would have been fine. In the second situation [Context 12], both kell and kellesz could have been said. It also depends on your past condition, kell means that I was very sure I could go to the meeting, while kellesz is more uncertain.*" (Participant number 20)

group	*kell*	*kellesz*
kellesz-users (N = 13)	definite, factual, more certain, the S is very sure, strong	talking about a feeling, assumption, cannot be used with *végképp* 'utterly', weaker, more uncertain, the S is unsure, condition in the context
non-users (N = 9)	happened in the past, necessary/needed at that particular moment in the past, a statement, not in question	–

TABLE 23. The words and phrases speakers associate with the use of *kell* and *kellesz* in contexts like *Context 11, 12* (future-in-the-past reading).

The next sub-section summarizes the results of this study. We argue that the results of this study further strengthen the hypothesis that when talking about future events,

considering the temporal/aspectual properties of the sentence and the predicate is not enough. The evidence type/strength of the evidence of the speaker plays a crucial role in 'how marked' future-time reference should be in a sentence. If the necessity of the proposition is not decided or it is but the speaker does not know how, it needs to be indicated somehow. Using future-referring morphemes makes a statement less factual and weaker.

5.3.3. *Summary of the results of the second study.* This sub-chapter summarizes the results of the second study. The differences and the similarities between the answers of the *kellesz*-users and those who do not use *kellesz* are also discussed. The sub-chapter ends with a comparison between the results of the first study (Virovec (2019)) and the second one (Virovec (2022)).

When *kellesz* was a main verb:

Production Task:

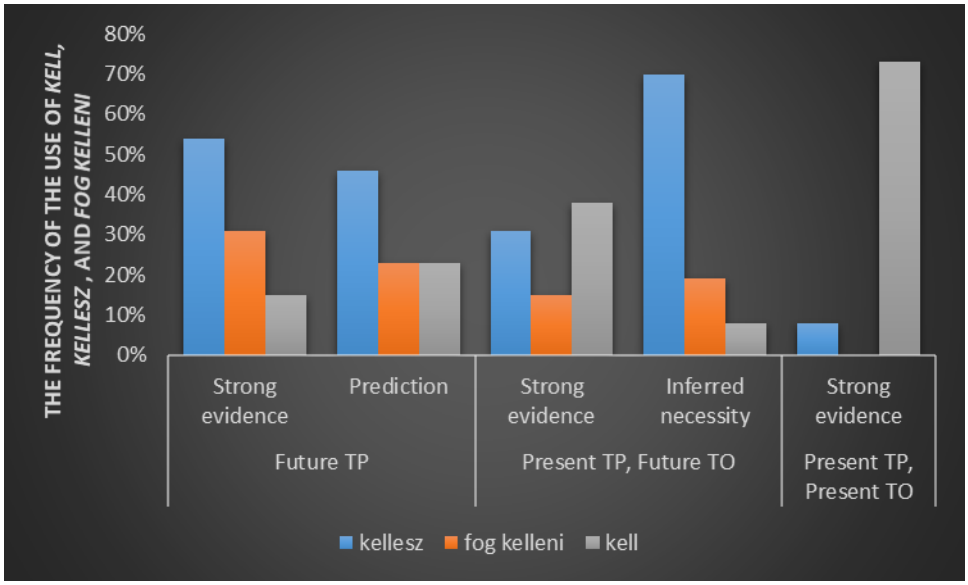

Figure 9. The frequency of the use of *kell*, *kellesz*, and *fog kelleni* as a main verb.

(1) *Kellesz* was used by 70 % of the speakers when the necessity was inferred.
(2) When the context indicated that something is not necessary at present but will be necessary in the future, 6 people (46 %) used *kellesz*. (This is not surprising because most of the participants used *fog kelleni* instead of and interchangeably with *kellesz*, when *kell* was a main verb.)
(3) When the contexts indicated that something is already necessary at present, 4 speakers (30 %) used *kellesz*.
(4) When something was needed at present and it was also owned at present, only 1 speaker (8 %) used *kellesz*.

When *kellesz* was used as an auxiliary verb:

Production Task:

FIGURE 10. The frequency of the use of *kellesz* and *kell* as an auxiliary verb.

(1) *Kellesz* was used by 85 % of the speakers when it was predicted that something will be necessary in the future. However, in the other similar context, only 54 % of the speakers used *kellesz*. They argued that in that particular situation, both the present and future TP readings are available.
(2) *Kellesz* was used by 81 % and 70 % of the speakers in the case of those contexts, where the necessity of the scope proposition was inferred. In the second case, native speakers argued that because of the stronger evidence that was indicated in the context, *kell* is more acceptable than in the first case, in which 81 percent of them used *kellesz* and none used *kell*.
(3) 81 and 62 % of the participants used *kellesz* when the necessity of the scope proposition could be postponed. They agreed on that the use of *kellesz* indicates that you are not fully committed and you might reconsider your decision. This uncertainty requires the use of a 'weaker' alternative, *kellesz*, and that is the reason why most of them did not use *kell*, despite the fact that the TP was present.
(4) In the case of the future-in-the-past reading, 62 % of the speakers used *kellesz*.
(5) Only 42 % of the speakers used *kellesz* when they had direct evidence that something will be necessary in the future. However, during the interview, they said that *kellesz* can be equally acceptable. They argued that, because of the strength of the evidence and the certainty of the speaker, *kell* is as good as *kellesz*, even if the perspective time is future.
(6) 31 % of the speakers used *kellesz* when the TP was present but the TO was future, and the speaker had direct evidence that something is necessary at present.
(7) When both the TP and the TO were present, only 1 speaker (8 %) used *kellesz*.

Follow-up interviews:

(1) The use of *kell* was most frequently associated with the following: definite, necessary at present (now), important, urgent, the speaker is sure, certainty, clear-cut, factual, strong, concrete, fixed.

(2) The use of *kellesz* was most frequently associated with the following: necessary sometime in the future, not so important/urgent, can be postponed, the speaker is not fully committed, indefinite, weaker, not concrete, uncertainty in the context, presupposition, assumption, only an opinion, inference, there is a condition in the context, only a plan.

Besides the temporal factor, the strength of evidence, the commitment of the speaker, the importance and the urgency of the scope proposition affect the choice of the speaker. Therefore, it can be said that, by using *kellesz*, the speaker not only refers to the future, but the use of it is connected to uncertainty, having indirect evidence that supports the necessity of the scope proposition and a lesser degree of speaker's commitment.

When comparing *kellesz*-users to non-users, first, the frequency of the use of *kell* was calculated.

Use	*Kellesz*-users	non-users
Presesent TP, TO	82 %	85 %
Present TP, Future TO+direct evidence	44%	78%
Postponed necessity	13%	56%
Present TP, Future TO+inferred necessity	8%	26%
Future TP+prediction	18%	33%
Future TP+strong evidence	25%	44%
Future TP+one event after another	23%	44%
Future-in-the-past	31%	39%

Table 24. The frequency of the use of *kell* in each group.

The frequency of the use of *kell* was higher in the 'control' group in each case, but it varied greatly, and the numbers were the closest to each other in the first case in which the use of *kellesz* was rejected. The use of *kell* was the least frequent (in each group) in the case when the necessity of the scope proposition was inferred. In both groups, the speakers associated the use of *kell* with the following words and expressions: generally true, obligatory, necessary at present, strong, definite, and something that is necessary/needed for sure. The significant difference that could be detected in the case of the production task (the use of *kell* is more frequent in the 'control' group) did not seem to show up in the set of expressions that the speakers associate with the use of *kell*. Another interesting question arises when comparing *kell* to *kellesz* and it is whether the difference between them is similar to the difference between the Hungarian futurate and *fog*. Namely, *kell* can only be used if the necessity of the scope proposition is settled at the time of the utterance, and the use of *kellesz* can express that the speaker predicts

the necessity of the event expressed by the scope proposition. The results of TABLE 24 suggest that the lowest percentage of the use of *kell*–in both groups–can be detected when the necessity is inferred, and when the speaker predicts the necessity of the event. These are the two cases in which the necessity of the event is either not decided or the speaker does not know how. These are exactly the cases in which the Hungarian futurate cannot be used.

A formal analysis of *kellesz* has been proposed by us (in Virovec (2019)). However, the initial questionnaire study failed to identify important factors that affect the choice of the speaker. Therefore, as it can be seen in TABLE 24, it led to false or just partially true predictions regarding the uses and the distribution of *kellesz* and *kell*. Considering all these, a formal analysis for *kellesz* will be proposed in 5.5.

TABLE 25 summarizes the differences and similarities between the results of the two main empirical studies presented in this dissertation.

FIRST STUDY (VIROVEC (2019))	SECOND STUDY (VIROVEC (2022))
Kellesz is unacceptable if both the TO and the TP are present (P is necessary and P is in progress at the time of speaking).	*The same results.*
Kell is significantly more acceptable than kellesz if the TP is present and the TO is future.	*It depends on the type of the evidence that the speaker has. If the speaker has direct evidence that the scope proposition is necessary, then kell is more acceptable. If the necessity of the scope proposition was inferred from indirect evidence defined in the context, kellesz is more acceptable, and the use of kell is rejected by most of the speakers.*
Kellesz is significantly more acceptable than kell when the TP is future.	*This is only true when the speaker does not have strong evidence that the scope proposition will be necessary, and only predicts it.*
Kell can always be used when kellesz can be used but this is not true the other way around.	*When the necessity of the scope proposition has been inferred from indirect evidence, the speakers reject the use of kell, but accept the use of kellesz.*
In the NEH dialect, speakers reject the future-in-the-past reading with kellesz.	*Speakers use kellesz with past reference time and, in that case, it has the future-in-the-past reading.*
The use of kell proved to be more acceptable with present TP than with future TP, even in the case of the speakers who do not use kellesz (the members of the 'control' group).	*The frequency of the use of kell varied greatly even in the case of the 'control' speakers (the same results, even more prominent).*

TABLE 25. The similarities and differences between the results of the two studies.

5.3.4. *The advantages and the limitations of production tasks with interviews.* First, we would like to note that this chapter is not a general overview of the advantages and limitations of production tasks followed by interviews. It is highly focused on the current study, and the kind of phenomena it wants to study. It is generally true that, in the case of semantic/pragmatic studies, it is very difficult to compare the effectiveness of different methodologies. One method can be suitable for a study, but it might not be suitable for another one. The complexity, and the value of variables vary greatly from one study to another.

It is generally true that meaning is very complex. Once you read out a sentence in a given context, speakers try to associate a certain meaning with it. The only way of being able to fully understand their reasoning is asking them, collecting comments. Therefore,

there are a lot of advantages of a production task followed by an interview. These are the followings:

(1) Whenever there is some futurity in the context (meaning that at least the temporal orientation is future), it is very difficult to test the acceptability of *kellesz* on a scale. Speakers can accept *kellesz*, but they always associate the use of it with delayed, uncertain necessity. Using only an acceptability judgement test, one can easily conclude that there is no real difference between the use of *kell* and *kellesz* in certain contexts (even in the majority of the contexts).

(2) The speaker's certainty is not a two-valued variable, and the results of the interviews pointed out that a lot depends on the speaker's perspective and interpretation. One cannot possible account for this factor when conducting an acceptability judgement task. It is always an interesting question that to what extent it is possible to eliminate testing variables which you do not intend to test. For example, the use of *végképp* 'utterly' affected the choice of some speakers. If it had been an acceptability judgement test, it would have been difficult to determine what could cause the difference in judgements.

(3) The understanding of the speaker can be evaluated by the interviewer, the length of time the speaker spends on completing the task is completely controlled, and it is always possible to ask clarifying questions.

(4) Since the speakers spend this 30-60 minutes with taking face-to-face to the interviewer, it is guaranteed that he/she pays attention to the task, never gets interrupted.

The limitations of a production task followed by an interview:

(1) The number of participants is frequently low (usually much lower than in an acceptability judgement task). An interview takes 30-60 minutes to record, then it takes hours to transcribe. Interpreting the comments and making a conclusion can only come after that. If a researcher worked with 100 participants, it would take at least 38 days just to record and transcribe the interviews (if he/she would not do anything else, and would work 8 hours a day just on this project).[64] However, one can easily see that the "real" work can only start after that. Collecting expressions, finding common arguments, and evaluating the production task all take time. If the interviews are 400 minutes long, just to go though the transcripts can take a lot of time. It is possible to conduct such studies in teams, and it is most probably

[64]The tasks are the followings: an interview (about 30-60 minutes long), explaining the tasks also takes time (10-15 minutes), corresponding with the participants, setting up a time (participants are not always on time), transcribing the interview (programs usually do not transcribe everything correctly, the quality depends very much on the quality of the recording), writing down every comment neatly, writing comments to the speakers' comments if necessary. It is at least 3-4 hours per participant altogether. If we multiply it by 100 participants, then it is at least 300 working hours.

the most effective way. Another difficulty is that it is difficult to find participants and it is usually required to pay for their time. Finding a huge number of people who agree to participate on voluntary bases is (almost) impossible. Therefore, it can easily be seen that unless it is at least a year-long project with a team of researchers and fairly high budget, it is very difficult to work with a huge number of participants.

(2) It takes a lot of experience and careful planning to be able to ask questions that do not influence the answers of the speakers. One solution could be that you only ask from a prewritten set of questions. Whenever you need some extra clarification, you can carefully plan your questions and ask them after the interview.

(3) Theses studies are not anonymous, and the interviewer knows exactly who he/she is taking to. As a result, speakers can get shy, or very conscious. They do not want to make a mistake, or say something that does not make sense. Therefore, it is important that the interviewer creates an environment in which the speakers feel confident and comfortable. It can include talking to them before the interview as we did. We explained the the course of the interview to them. We told them we only want them to tell us what they think and every thought can be helpful (does not matter how unintelligible it might seem to them). Generally, we can conclude that many speakers need constant reassurance that they are doing well, and the things they say make perfect sense. These speakers are not used to be asked to talk about their language use, therefore, they do not feel comfortable. If anybody wants/needs to work with speakers who do not hold a degree in linguistics/languages, it is important to talk to them beforehand and create a reasonably comfortable environment. Even if you do that, it always highly depends on the participant how he/she reacts to the task and how difficult it is for him/her to perform.

Taking everything into consideration, we can conclude that interviews with speakers are inevitable if we would like to understand the use of a structure like *kellesz* properly. It is reasonable to do preliminary questionnaire and corpus studies to define variables. Since these studies (production studies with interviews) are quite time-consuming and take a lot of time and (usually money or other resources) to set-up, the tested variables need to be very carefully planned and selected. Preliminary studies can provide an excellent opportunity for that. Whenever one studies a structure that has never been studied before, it is crucial to do multiple different studies. Each and every study with its own limitations can provide crucial information that contributes to the understating of the use and meaning of the structure.

5.4. **Pragmaticalization.** Grammaticalization is the development of grammatical categories out of lexical ones. It has received significant attention in the literature recently (Traugott & Heine (1991), Lehmann (1995), Hopper & Traugott (2003), Narrog & Heine (2011)). Semantically speaking, grammaticalization is the shift from propositional to grammatical meaning (Davis & Gutzmann 2015:198). Similarly, another type of semantic change happens when the original propositional meaning turns into an expressive, use-conditional one. This process is referred to as *subjectification* by Traugott (1995) or *pragmaticalization* by Auer & Günthner (2005), Diewald (2011), and Davis & Gutzmann (2015). As the title suggests, we will follow the latter authors and use the term *pragmaticalization*. The best-known examples are the following.

(186) a. paraszt 'boor' 'farmer' > 'crude person'
b. szar 'shit' 'excrement' > '(very) bad'

Davis & Gutzmann (2015), in their work, attempt to model this change from truth-conditional to non-truth conditional meaning in a type-based, hybrid semantic framework.

The core idea of a hybrid semantic framework was introduced by Kaplan (1999). To illustrate its significance, Davis & Gutzmann (2015) considers a minimal pair taken from Frege (1979).

(187) This cur howled the whole night.

They argue that the negative attitude is associated with *cur* by linguistic conditions, therefore, it is part of its semantics. They capture this additional layer of meaning by adding an extra layer of use condition to the semantics to supplement the truth-conditional meaning (Davis & Gutzmann 2015:201).

Within this framework, sentences receive both a truth value, and a use value. Natural language expressions:

(1) a truth-value: true (1) or false (0);
(2) a use-value: *felicitous* (✓) or *infelicitous* (↯).

Altogether:

(188) Hybrid semantics: $\langle 1, \checkmark \rangle$, $\langle 1, \lightning \rangle$, $\langle 0, \checkmark \rangle$, $\langle 0, \lightning \rangle$. Davis & Gutzmann (2015:201)

Truth-condition is associated with a set of *worlds* in which the sentence is true, while the use-condition with a set of contexts in which the use-condition is present.

The authors use type u (originally introduced by Potts 2005) for use-conditional content. So the truth-conditional type is denoted as $\langle s, t \rangle$, while the use-conditional type as $\langle s, u \rangle$. They use $\diamond$ to build complex use-conditional types. They argue that *cur* can be translated as follows, where *bad* denotes the speaker's negative attitude.

(189) $[\![cur]\!] = dog\,\langle e, t \rangle \diamond bad\,\langle e, u \rangle$ Davis & Gutzmann (2015:202)

They define pragmaticalization in hybrid semantics as a diachronic type-shift from truth-condition to use-conditional content (Davis & Gutzmann 2015:203). The process suggested by the authors can be summarized as follows. The starting point is a *conversational* implicature that is derived in a *specific context* and driven by *extra linguistic factors*. If a conversational implicature is generated frequently enough, it becomes conventionalized. When it is a part of the lexical meaning, it should not be derived in a specific context anymore. They also suggest an intermediate stage in which the original expression generating the conversational implicature gets conventionalized into a mixed use-conditional item, with the conversational implicature encoded as the use-conditional content (Davis & Gutzmann 2015:203). If A is some truth-conditional content and A_{ex} is the derived use-conditional content, then the two-step pragmaticalization can be written as follows.

(190) $A > A \diamond A_{ex} > A_{ex}$

However, they argue that the final stage does not always look like this. At the final stage, the expression might just split into two different expressions (*pragmatic fission*).

(191) Pragmatic fission:

$$A > A \diamond A_{ex} > \begin{cases} A \\ A_{ex} \end{cases}$$

Davis & Gutzmann (2015:204)

Pragmatic fission can lead to lexical ambiguity. However, there are cases in which pragmatic fission targets only one part of the truth-conditional content. This is called partial pragmatic fission, and is schematized as follows.

(192) Partial pragmatic fission:

$$(A\&B) > (A\&B) \diamond B_{ex} > \begin{cases} (A\&B) \\ A \diamond B_{ex} \end{cases}$$

Davis & Gutzmann (2015:205)

5.5. **The truth- and use-conditional analysis of *kellesz*.** Let us start with the formal analysis proposed by us in Virovec (2019). In this part, we argue that the pragmatic functions of *kellesz* developed from its original, truth-conditional meaning.

Kellesz's 'kell.fut' original truth-conditional meaning is demonstrated by the following example. In the formula, *kell* is a necessity modal, it expresses universal quantification over possible worlds, and FUT has a scope over, it giving rise to the meaning that the scope proposition will be necessary in the future. In the case of (193), *kellesz* is preferred, because the stimulus that indicates the necessity of e is not present at the time of speaking, but the speaker can predict that it will be present at a future time t'.

(193) *Context: You are watching the weather forecast. It will rain a lot next week.*
Le ?*kell*/*kellesz* nyírnunk a füvet.
'It will be necessary at a future time t' to cut the grass at t'' and $t'' > t'$.'
$\lambda t \lambda w.\exists t'[t < t' \wedge \forall w'[w' \in MB(w,t') \longrightarrow \exists t''[t' < t'' \wedge \exists e[[\text{we cut the grass}](w')(e) \wedge \tau(e) \subseteq t'']]]]$ Virovec (2019:25)

However, as it was demonstrated in the previous sub-chapter, considering the temporal factor only is not always enough to predict the choice of the speaker. dialect speakers associate the use of *kellesz* with being unsure, having indirect evidence, supposing but not knowing something. It is natural to ask how these functions were develop. We model this change in the framework of pragmaticalization.

In the first step (*Step 1*), future-time reference (*FUT*) was associated with the following:

(1) the necessity of the scope proposition is not a fact (cannot be verified at present, because it is not necessary at present) but has a certain probability, and therefore
(2) lesser degree of speaker's commitment.

The evidence for this can be seen in the previous subsection. The participants argued that the use of *kellesz* always implies that the speaker is unsure, therefore, the statement is weaker and less factual. This is far from surprising if we take into consideration the fact that–similarly to *majd*–sentences containing a modal with future temporal perspective can never / hardly ever refer to the immediate future (the event time of the event expressed by the predicate can never / hardly ever be in the immediate future).

This conversational implicature associated with future-time reference was generated very frequently, so it got conventionalized (*Step 2*). However, it is clear that this pragmatic fission targeted only one part of the truth-conditional content of *kellesz*, the *FUT* part. Let us consider the following example from the study discussed previously (and in Virovec (2022)).

(194) *Context: Your friend was partying all last week, he did not study anything for his exam. You haven't talked to him since then, but you could hardly imagine that he could have passed the exam. You say*:

Péternek	javítóvizsgát	#kell	/ kellesz	tennie
péter.DAT	makeup.exam.ACC	must.NPST	/ must.FUT	take.INF.3SG
menedzsmentből.				
management.from				

'Peter probably has to retake his management exam.'

The use of *kell* is infelicitous in (194) because the speaker does not know for sure that Péter has to retake his management exam. In this particular context, 81% of the speakers used *kellesz* and nobody used *kell*. Speakers associate the use of *kellesz* with uncertainty in general, and not only with the uncertainty of the future. The use of

kellesz, because of its future temporal perspective, indicated that the necessity of the scope proposition is uncertain, it is just a prediction about the future. This implicature became conventionalized and the use of *kellesz* 'must.fut' indicates either that something will be necessary in the future (FUT&must), or that the speaker is unsure about the necessity of the scope proposition (because it has been inferred from a premise set known by the speaker, or because the speaker has not yet made up his mind).

(195) Partial pragmatic fission in the case of *kellesz*:

$$(FUT\&must) > (FUT\&must) \diamond FUT_{ex} > \begin{cases} (FUT\&must) \\ FUT_{ex} \diamond must \end{cases}$$

As a result of this, two different structures developed (*kellesz*$_1$, *kellesz*$_2$), leading to ambiguity between the two.

The use of *kellesz*:

(1) emphasizes that the scope proposition is not necessary at present, but it is probable that it will be necessary in the future, or
(2) emphasizes that the speaker is unsure of the necessity of the scope proposition (because it has been inferred, or the speaker has second thoughts about it).

Both expressions contain a '*must*'-part, but there is a difference between their interpretations. Namely, *kellesz*$_1$ only has a truth-conditional meaning, while in the case of *kellesz*$_2$, the truth-conditional meaning is substituted by a use-conditional one.

Formally:

kellesz$_1$ (FUT&$must$):

- $[\![must]\!] = \lambda P \lambda t \lambda w. \forall w' [w' \in Best(MB)(OS)(w)(t) \longrightarrow AT(P, [t, \infty), w')]$
- $[\![FUT]\!] = \lambda t. t < t'$
- $[\![(FUT(must))]\!] = \lambda P \lambda t \lambda w. \exists t' [t < t' \wedge \forall w' [w' \in Best(MB)(OS)(w)(t') \longrightarrow AT(P, [t', \infty), w')]]$ Virovec (2019)

In (194), the use of *kellesz* is felicitous, while the use of *kell* is infelicitous. The use conditions of *kellesz*$_2$ (FUT_{ex}&$must$):

(UC1) There is uncertainty in the context. The speaker does not have a strong evidence that supports the necessity of the scope proposition.
(UC2) The prejacent event (e.g. *Peter retakes his management exam* in (194)) is not imminent, it is DISTAL IN TIME.

The fact that there are two different expressions can be supported by the following arguments.

(1) Some speakers argued that *kellesz* cannot be used with *végképp* 'utterly'. They felt a conflict between the uncertainty *kellesz* can convey and the certainty that *végképp* implies.

(2) When *kellesz* is in the scope of negation, the default meaning is '*it will not be necessary to do something*'.

(196) Nem kellesz segíteni Jánosnak.
not must.FUT help.INF János.DAT
'It will not be necessary to help János.'

However, when contrasted with *kell* (contrastive negation), two different interpretations are possible (at least for some of the consultants).

(197) Nem el kellesz menni az orvoshoz, hanem el kell.
not PRT must.FUT go.INF the doctor.to but PRT must.NPST
'It is necessary to go to doctor's not in the future, but now.'

(197) on the truth-conditional level–if we assume that $kellesz_2$ is negated–can be written as follows: $\neg MUST(P)\&MUST(P)$, which is obviously contradictory.[65] However, dialect speakers accept (197) and are able to give contexts in which it is perfectly natural to say. The default interpretation is '*It is urgently necessary to go to the doctor's, and cannot be delayed*'. However, the following interpretation is also possible for some native speakers (with a certain intonation): you surely have to go to the doctor's, and there is no uncertainty (your condition is that bad). The suggested context by the consultants: A's condition is getting worse progressively, so A starts to think about the possibility of going to the doctor's. A says to B: "*El kellesz mennem az orvoshoz*". B thinks that A's condition is serious enough, so A surely has to go to the doctor's. B says to A: "*Nem el kellesz menned az orvoshoz, hanem el kell*". So, both of the delaying effect and the uncertainty can be canceled out by contrastive negation, which is a type of metalinguistic negation.[66] Similarly, the delaying effect can be canceled in the case of *majd* 'later' when it is negated and contrasted to an expression of proximity. For the speakers of the dialect, *kell* represents '*necessity+proximity/imminence*', and when *kellesz* is negated contrastively, it is contrasted to the imminent necessity that *kell* expresses.

In summary, *kellesz* was originally used to indicate that something will be necessary in the future (future temporal perspective). If something is not yet necessary, it can imply that it is uncertain that it will ever happen. This implicature was generated very frequently, so it became conventionalized. Through partial pragmatic fission, two different lexical entries developed, one of them is the original truth-conditional one ($FUT(must)$),

[65]In the case of the Hungarian *kell*, unlike in the case of the English *must*, negation has scope over necessity.

[66]However, one can argue that they are interrelated. If someones's condition is bad enough, it can indicate that s/he surely and urgently has to go to the doctor's.

while the other can be used whenever there is uncertainty in the context (it is uncertain that the scope proposition is necessary) or whenever the speaker wants to delay the event time of the event expressed by the scope proposition (it is necessary, but it will happen / I will do it some time in the future, but not now).

In the next chapter, a special effect that the use of *kellesz* and the MAJD-future have will be discussed. This is the '*politeness effect*'. It will be argued that the availability of this effect further strengthens the connection between future-time reference and epistemic modality.

6. CHAPTER: Politeness and future-time reference

It has been discussed in the dissertation that morphemes that refer to the distal future (*majd* and *kellesz*) share their pragmatic functions (uncertainty and the delaying effect). In this chapter, we will argue that from these pragmatic functions, a special effect, the '*politeness effect*' developed.

Majd 'later' and *talán* 'perhaps' are seemingly very different. While *majd* usually indicates futurity (or is used as an *almost*-approximator), *talán* 'perhaps' is considered to be an epistemic-inferential adverb indicating the speaker's uncertainty. Interestingly enough, they share many properties. By using any of these adverbs, it is possible to make an utterance politer.[67]

(198) Vidd *majd* el a levelet!
take.IMP.2SG MAJD PRT the letter.ACC
'Please take the letter with you.' Kiefer (2012:435)

(199) a. ...nézzük talán/esetleg/*feltehetőleg/*valószínűleg akkor ezt a sebhelyet.
see.IMP.1PL perhaps/possibly/presumably/probably then that.ACC the lesion.ACC
'... let's (perhaps) see that lesion.' HHC (year:1978)

b. Nézze: talán/esetleg/*feltehetőleg/*valószínűleg ígérjen rá a bérére.
see.IMP.1SG perhaps/possibly/presumably/probably promise.IMP.3SG PRT the salary.POSS.3SG.on
'Listen: (perhaps), offer him a higher salary.' HHC (year:1926)

Furthermore, *majd* and *talán* are not unique in this respect, other Hungarian epistemic modal adverbs, like *esetleg* 'possibly' and *kellesz* 'must.fut', can also be used to make a request politer.[68] We believe that this phenomenon could be explained by the fact that speakers associate uncertainty with the use of certain future-referring morphemes and

[67]This function of *talán* has also been discussed by Kugler (2010).
[68]In a few very special contexts, even *fog* and *lesz* are used to make a request politer.

epistemic-inferential adverbs, and being uncertain is connected to indirect, weaker, and softer statements which are all important in politeness strategies.

6.1. **Epistemic-inferential adverbs as downtoners in English and in Hungarian.** Brown and Lewinson (1987:61) argue that there are two specific kinds of desires ('face-wants') attributed by interactants to one another:

- "the desire to be unimpeded in one's actions (*negative face*)",
- and "the desire to be approved of (*positive face*)".

A request is said to threaten the negative face. "*Politeness arises through strategies that minimize the threat to face* (" Brown and Lewinson (1987:61)).

Sifianou (1999) distinguishes two distinct parts when discussing how we can divide a request into parts. According to her, the parts of a request are

- the core request, the head act which has the function of requesting,
- and there are the peripheral elements which do not change the propositional content of the head act, just serve to mitigate or aggravate its force (Sifianou (1999:166)).

Peripheral elements can be divided into two categories: the internal modificational devices and the external ones. One type of the internal devices is the group of softeners that serve to soften or mitigate the force of a request. Downtoners are types of softeners that include a series of adverbs, which are used to "*tentativize what speakers say, thus allowing them not to fully commit themselves to what they are saying*" (Sifianou (1999:172)). According to Sifianou (1999), their purpose is to vary the politeness degree involved, and to decrease the degree of imposition of the request. Among these adverbs, the most dominant ones are the epistemic-inferential adverbs. The following are two examples.

(200) Could you [possibly]$_{\textit{internal modification device}}$ open the window?

(201) Ki tudná [esetleg] nyitni az ablakot?
PRT can.COND.3SG possibly open.INF the window.ACC
'Could you possibly open the window?'

In the case of *talán*, "*the meaning component 'possibility' is inactive here as far as the evaluation of the event is concerned*" (Kugler (2010:91)). The use of *talán* indicates indirectness and weakens the illocutionary force in requests, suggestions, and proposals. "*In sentences whose verb is in the imperative, the role of talán is the diminishing of the illocutionary force (the cautious weakening of the force of the imperative), the expression of politeness. The omission of it may lead to the interpretation of the sentence as a downright command*" (Kugler (2010:92)). Kugler (2010) further argues that a higher degree of possibility tends to strengthen the illocutionary force, while those adverbs that express a middle or a lower degree of probability, like *talán* or *esetleg*, tend to weaken it

(Kugler (2010:92)). It is also notable that not every adverb expressing epistemic possibility/probability is capable of making an utterance politer. Gyuris (2022:361) argues that the use of *talán* indicates that the speakers consider the scope proposition to be possible, but they arrive to this conclusion *on the basis of an inference process*. Following Kiefer (1981), the author further argues that the use of *talán* does not convey that the scope proposition is objectively possible.

(202) a. *Anna tudja, hogy Péter talán/esetleg iskolában van.
anna know.NPST.3SG that peter perhaps/possibly school.in be.NPST.3SG
'Anna knows that Peter is perhaps at school.' Kiefer (1981:168)

b. Anna tudja, hogy Péter valószínűleg/feltehetőleg súlyos betegségben szenved.
anna know.NPST.3SG that peter probably/presumably serious illness.in suffer.NPST.3SG
'Anna knows that Peter is probably suffering from a serious illness.'

Besides the degree of possibility they express, *talán/esetleg* and *valószínűleg/feltehetőleg* further differ. Namely, the former cannot convey objective possibility, while the latter can.

The common features of adverbs expressing possibility which can be used to mitigate the illocutionary force of a request are the following.[69]

(1) They express a lower degree of possibility.
(2) The speaker arrived to the conclusion that the scope proposition is necessary on the base of an inference process.
(3) They cannot convey objective possibility.

The next sub-chapter summarizes the properties of future-referring morphemes that seem to have developed 'the politeness effect'.

6.2. **The 'politeness effect' in the case of future-referring morphemes.** Besides epistemic-inferential adverbs, certain Hungarian future-referring morphemes are frequently used to mitigate the illocutionary force of a request.

Kiefer (2012:435) mentions the possibility of the presence of the 'politeness effect' in the case of *majd*. He argues that sentences like (198) can be understood as an order without *majd*, but with it, they are definitely requests. Therefore, one can think that the use of *majd* is a conventional means to make requests politer. Kiefer (2012) claims that it is not, because it can only be used in the case of actions that do not have to be

[69]We do not argue that these features are universal, we would like to restrict the discussion to Hungarian.

carried out immediately after requesting it.[70] The reason for that can be the following. The temporal (w_1 is a continuation of our world w_0, and w_0 is not temporally close to w_1) meaning component of *majd* is still active semantically in the case of these utterances. Let us compare the following two examples.

(204) *Context: B is eating the last bites and is going to finish his lunch in a few minutes. A cannot stay and wait. A wants B to wash up after he finishes lunch (but not necessarily right after). A says to B*:

Mosogass majd el!
wash.up.IMP.2SG MAJD PRT
'Wash up the dishes.'

In the case of (204), the event does not happen immediately / there is a certain temporal distance between the utterance time and the (expected) event time.

(205) *Context: A little boy has just collapsed, A is trying to revive him. A says to B*:

#Hívd majd fel a mentőket!
call.IMP.2SG MAJD PRT the ambulance.ACC
Intended meaning: 'Call the ambulance.'

In the case of (205), the event must be carried out immediately, *B* cannot wait too much, *A* knows that and wants to emphasize that. *Majd* is infelicitous here, because the imminence of the action is in conflict with the semantically active 'not now/immediately' part. It is notable that examples for this special effect of *majd* could not be found earlier than in the early modern period (see in (111)). During the early modern Hungarian period, *majd* started to lose its PROXIMAL meaning component, and by the end of the period, it was replaced by the DISTAL component and the pragmatic functions of *majd* appeared. It is not surprising that speakers started to use *majd* to mitigate the illocutionary force of a request at the end of this period.[71] However, *később*, *egyszer*, or *idővel* cannot be

[70]Although, it is true that the use of *majd* almost always has a delaying effect, but it is not always present when used to make the utterance politer. There is one notable exception, typically, when *majd* is used together with a modal, its delaying effect is less prominent.

(203) Oda kellene majd érinteni a kártyát.
there must.COND MAJD touch.INF the card.ACC
'You should put your credit card there.'

[71]*Fog* 'will' and *lesz* 'will be' are used in a few, very specific contexts to make an utterance politer.

(206) *Context: You are at the cashier. The shop assistant says to you*:

Ötezer forint(ot) fogok kérni / lesz.
five.thousand huf.ACC will.NPST.1SG ask.INF / will.be.3SG
'I will ask for 5000 HUF. / It will be 5000 HUF.'

It is easy to see that *fog* and *lesz* in this sentence do not contribute anything to the meaning. One argument for it is that they should be left out when we quote (207).

used to make an utterance politer. The reason for that might be that they are not conventionalized ways of making an utterance less certain.

Similarly to *majd*, *kellesz* is used to make one's utterance politer. In order to show the existence of this function of *kellesz*, we designed a short follow-up task for the participants of the experiment in 5.3.2.[72] They were asked to evaluate sentences on a scale ranging from −3 to +3. They were asked to give −3 if they thought that the sentence was an incredibly impolite utterance in the given context, and +3 if they thought it was very polite. The main reason for the scale was that we wanted the center (0) to represent "the neutral" value, anything less than it represented rather impolite (negative values), more than that represented rather polite (positive values). The following two situations were shown to them.

(208) *Context: You are buying some goods at a store. The shop assistant asks you to place the goods on the conveyor belt. The shop assistant says to you*:

Fel kell / kellesz / kell majd tenni az árut a
PRT must.NPST / must.FUT / must.NPST later put.INF the goods.ACC the
szalagra.
belt.to

'You must put the goods on the conveyor belt.'

Native comment: "*If you use kellesz, that is a request, if you say kell, that is an order. Kellesz is softer, while kell is strong, a shop assistant should not tell the costumer what s/he needs to do, s/he should ask the costumer and use kellesz.*" (Participant number 1)

Results:

- *kell*: Mean: −0.7, Sd.: 0.82
- *kellesz*: Mean: 2.1, Sd.: 0.99
- *kell majd*: Mean: 1.7, Sd.: 1.06

(209) *Context: You are in a school where the doorman asks you to wear a mask. The doorman says to you*:

Fel kell/ kellesz/ kell majd venni a maszkot.
PRT must.NPST/ must.FUT/ must.NPST later put.on.INF the mask.ACC

(207) Azt mondta az eladó, hogy 5000 forint (*lesz) / 5000 forintot
that.ACC say.PST.3SG the shop.assistant that 5000 huf will.be / 5000 huf.ACC
(*fog) kér(ni).
will.NPST.3SG ask.INF.

'The shop assistant said that it (*will) be 5000 HUF/s/he (*will) ask for 5000 HUF.'

[72]We thought about repeating the examination several times, but at the same time, the number of permanent native-language consultants is limited. As it has already been mentioned, it is very difficult to research a stigmatized structure, so based on the experience of the past 5 years, we decided to work with permanent consultants.

'You must/should put on the mask.'

Results:

- *kell*: Mean: 0.2, Sd.: 1.69
- *kellesz*: Mean: 1.9, Sd.: 1.52
- *kell majd*: Mean: 1.1, Sd.: 0.74

Kellesz is perceived as the politest choice of all. dialect speakers argue that the use of *kellesz* makes the utterance softer, kinder, therefore politer. *Kell majd* was also evaluated as polite by native speakers of the *kellesz*-dialect. The use of *kell* was, on the other hand, perceived as impolite with an average of -0.25. A Fridman test was performed to determine if the results are significant. 10 speakers participated in the study.[73] The test revealed that the difference between the three alternatives (*kell*, *kellesz*, and *kell majd*) is statistically significant ($X_r^2(2, N = 20) = 20.425$, $p < 0.05$). Pairwise Wilcoxon sign-rank tests were performed to see between which pairs the difference is statistically significant. *Kellesz* proved to be a significantly politer choice than *kell* ($Z(19) = -3.0785$, $p < 0.05$). *Kell majd* also proved to be politer than *kell* ($Z(19) = -3.1993$, $p < 0.05$). However, the difference between *kellesz* and *kell majd* was not found to be statistically significant (Z(19)=-1.8205, p>0.05). It is questionable if using a bigger sample would have lead to a significant result between these two structures. The results of this small-scale study showed that, by making the statements weaker, softer, and less direct, the use of *kellesz* can turn a directive / an order into a polite request.

The use of (at least some of the) future-referring morphemes can make an utterance politer, because–as it has been shown-they are frequently associated with weaker and indirect statements. In the case of *majd*, the 'politeness effect' possibly developed from its DISTAL component. This component adds the following to the meaning: 'the scope proposition is either true in a distal temporal continuation of our world, or it is not true at all'. From this component, the uncertainty of *majd* could easily develop via partial pragmatic fission. If the use of *majd* expresses a certain degree of possibility,[74] it is an eligible 'candidate' for being a downtoner. Hungarian epistemic-inferential adverbs that can function as downtoners seem to share one more notable feature. Namely, they cannot convey that the scope proposition is objectively possible.

(210) a. ??Anna tudja, hogy Judit majd férjhez megy.
anna know.NPST.3SG that judit MAJD husband.to go.NPST.3SG

[73] 3 speakers could not stay for the follow-up task. Participation was voluntary and the participants did not receive any compensation for their time and effort.

[74] In *majd*'s analysis, we talk about epistemic alternatives of our world and claim that *majd(P)* is true if all the P-worlds are temporally distal from ours. If there is no P-world, then it is trivially distal from ours.

Intended meaning: 'Anna knows that Judy will get married sometime in the future, but not now.'

b. Anna tudja, hogy Pétert műteni kellesz$_1$ / ??kellesz$_2$
anna know.NPST.3SG that péter.ACC operate.INF kell.FUT / kell.FUT
'Anna knows that Péter will have to be operated.'
Intended meaning in the case of *kellesz*$_2$: 'Anna knows that Péter perhaps/probably has to be operated.'

As we can see in the example above, *majd* (and also *kellesz*$_2$) seem to have every property that could qualify them to be a morpheme that is capable of developing this 'special effect'. The degree of uncertainty that both morphemes convey allows the speaker to use them to make an utterance indirect, and to indicate a lesser degree of speaker's commitment.

In this sub-chapter, we argued that both *majd* and *kellesz*$_2$ could be and are fairly frequently used to mitigate the illocutionary force of a request / make an utterance politer. In the case of this special effect, the DISTAL component is semantically inactive in the case of *majd*, and the FUT$_{ex}$ in the case of *kellesz*$_2$. At the end of the sub-chapter, we argue that these two morphemes share one more notable property with *talán*/*esetleg*. Namely, they cannot be used if the scope proposition is objectively possible, so their uses indicate a certain degree of subjectivity.

In the next sub-chapter, we summarize the findings of the chapter by trying to give an explanation why epistemic-inferential adverbs and these future-referring morphemes could develop this special effect.

6.3. **A special effect that epistemic-inferential adverbs and future-referring morphemes share, the *politeness effect*.** The findings presented in this chapter further strengthen the hypothesis that there is a connection between epistemicity and future-time reference. This connection could be explained by the fact that speakers associate similar expressions with both the use of epistemic-inferential adverbs and future-referring morphemes.

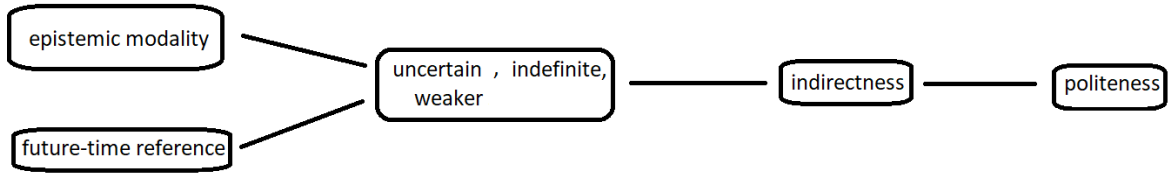

FIGURE 11. The expressions speaker associate with epistemic-inferential adverbs and future-referring morphemes.

The future is uncertain and uncertainty is connected to being indirect, indefinite and weaker statements.[75] If we want to be politer, especially in the case of a request, we want to avoid giving the impression that we are fully committed to what we are saying/asking. The use of either type (epistemic-inferential adverbs, future-referring morphemes) of these morphemes allows us to indicate this. According to Kugler (2003, 2010), epistemic-inferential adverbs represent various degrees of likelihood. Therefore, their modal force does not represent "a scale of discrete points" (Kugler (2010:83)). Similarly, future-referring morphemes can express various degrees of uncertainty, the more distal the future that morpheme expresses is, the more likely that particular morpheme can behave similarly to morphemes expressing a lower degree of possibility. It might not be surprising that *majd* and *kellesz* are relatively frequently used in this function (at least in the *kellesz*-speaking dialects). Apart from being in the 'higher' uncertainty range, these morphemes share another feature with *talán* and *esetleg*. Namely, they cannot convey objective modality, the statement that contains them is understood as rather subjective.

Thought the whole dissertation, it has been argued that epistemic modality/inferentiality and future-time reference are closely connected. This view is not new in the literature (see in Giannikidou and Mari (2016), (2018)). However, to the best of our knowledge, nobody has approached this question from this point of view. Namely, no one has examined the various different functions and effects future-referring morphemes might develop and compared them to the ones various morphemes expressing epistemic possibility/necessity possess.[76] All in all, by examining the similar functions/meaning components of epistemic modals and future-referring morphemes in Hungarian, we can conclude that the uncertainty of the future is closely connected to inferentiality and therefore, to epistemic modality. The last chapter of the dissertation is a conclusion in which we highlight the most important findings of each chapter.

7. CHAPTER: Conclusion

The aim of the dissertation is to show that future-referring morphemes can indeed have various functions that are similar to modals. Therefore, one can say that their semantic (and pragmatic) contribution is similar to the one of modals rather than to the one of tense markers. Throughout the dissertation, we tried to collect evidence for the existence of these functions by studying the use of various Hungarian future-referring morphemes. Their use is relatively underresearched, and none of them got substantial attention in the literature, this is especially true for *kellesz*. Besides presenting introspective data, the

[75]Kugler (2010) suggests a similar argument in the case of the epistemic-inferential modal adverb *talán* 'perhaps'.

[76]In the case of epistemic modality, "*we use probability as a synonym of possibility*" Kugler (2010:83).

dissertation also includes the results of an (informal) questionnaire study on the use of *fog* and the Hungarian futurate, the results of a study on the use/acceptability of *kellesz* with various TP and TO combinations within two dialects (the NEH and Subcarpathian ones), and a production study with follow-up interviews on the use of *kellesz* (in the NEH dialect).

The main results of each chapter can be summarised as follows.

(1) Chapter 4: The chapter starts with a short introduction and the summary of the existing literature on the Hungarian futurate and *fog*. The chapter proposes that the Hungarian future auxiliary *fog* is a modal. As opposed to previous findings of the literature, we argue for the availability of both the epistemic and the metaphysical modal base. If *fog*'s modal base is not restricted, its obligatorily future-oriented nature cannot follow from the properties of its modal base only. Therefore, it is suggested that its contribution is two-fold, being both modal and temporal. It is argued that the predictions of this account can better explain the empirical data presented in both Palffy-Muhoray (2013) and in this dissertation. First, the use of the futurate is marginal if the speaker infers the truth of the proposition from contextually known facts, while *fog* is natural and acceptable. Second, speakers of the dialect can use *fog* to express a genuine prediction. As opposed to that, we argue that the Hungarian futurate posits a null necessity modal, which is so strong that it does not have an ordering source. Therefore, it can only be used if the truth of the proposition is settled either objectively, or subjectively (against the speaker's beliefs). If we do not restrict the modal base of *fog* and assume that is has an ordering source, it can easily be explained why speakers prefer it to the futurate in various contexts, regardless of any other properties of the sentence (the predicate type, the use of temporal frame adverbs). Moreover, this can explain the relative frequency of the use of *fog* with telic predicates in temporally unambiguous sentences and the pattern that can be observed in (52). If we assume that *fog* is compatible with any kind of reasoning while the futurate is not, we expect *fog* to appear in sentences with any kind of predicates or in sentences with future-referring temporal adverbs, which is the case. Whenever speakers have strong and direct evidence that entails the truth of the proposition (the truth of the proposition is settled/decided) and the sentence is temporally unambiguous, speakers strongly prefer the futurate, since *fog* in such sentences might imply that P is inferred (in the case of settled propositions) or that it is not even settled in our world, which they want to avoid. The (informal) questionnaire study presented here provides strong evidence for the claim that the type of the evidence the speaker has and the type of reasoning defined in the context have an effect on the speaker's choice between the two structures. Temporal ambiguity

does matter, but only if the Hungarian futurate and *fog* are in real competition with one another, which is not the case in a significant proportion of the times. Therefore, we claim that the Hungarian data might not contradict Copley (2009)'s idea that the use of the futurates always requires a plan, the presence of a schedule, or it must be (at least believed to be) decided. Even if the Hungarian futurate requires the truth of the proposition to be settled differently than the use of the English futurate does, it still requires a specific context to be felicitous.

The chapter continues with the discussion of the MAJD-future. First, we discuss the diachronic development of *majd*. It is argued that *majd* became and*adverbial particle having various pragmatic functions* from an adverb referring to the proximal future. A key component of this process was that *it lost its proximal meaning component which gradually it turned into a distal one*. One evidence for this might be the existence of the double *majd* (*majd P majd Q*) that was used to mean 'now *P* and then/later *Q*' in very late middle Hungarian, and in early modern Hungarian, but which is completely lost in present day Hungarian. In modern Hungarian, *majd* can never refer to the proximal future since a very important component of its meaning is the 'NOT NOW'-component. It can be shown by the fact that it is frequently contrasted to an adverb referring to the proximal future (when it is negated). However, *majd*–as opposed to the proximity marker *most*–can only refer to the distal future, because *the future component is always semantically active in its meaning*. If something is distal in time, it is *uncertain* (it might happen, it might not). A semantic analysis of *majd* is given, in which the DISTAL component is defined as the logical negation of Halm's (2020) PROXIMITY component. It is further claimed that the pragmatic functions of *majd* developed from this component. If something might not even happen, it implies that it is uncertain, possibly, but necessary happens, and it is associated with a lesser degree of speaker's commitment. All these 'functions' have a lot in common with modal auxiliaries and adverbs.

After discussing *majd*, we turn to its comparison to the Hungarian proximity marker *most*. It is shown that the Hungarian *most*, under very specific circumstances (when it directly precedes the focused verb), can mark relative proximity, which gives the sentence the additional meaning that the speaker sees the time of the eventuality as proximal to the reference time (in non-embedded contexts, the utterance time). It is argued that the proximity marker *most* defines an interval, the proximity-range, if the event time is within this range; the event is considered to be proximal. The complement of this interval is the '*majd*-range'. Since the proximity that *most* expresses is relative (and therefore determined by the significance and the frequency of the event expressed by the predicate in the

speaker's life), what is considered to be distal is relative, too. It means that the absolute temporal difference between the utterance time and the event time can vary greatly, depending on the context. Namely, it is different in the case of an '*eating*' event and in the case of a '*getting married*' event. The former is very frequent and insignificant, while the latter is infrequent and significant. The last sub-section of this chapter is dedicated to the discussion of adverbs that are similar in meaning to *most* and *majd*. These adverbs are *éppen* 'just', *idővel* 'in time', *később* 'later', and *egyszer* 'once'. It is argued that even though they can express a meaning similar as *most* and *majd*, they are fundamentally different. Namely, they cannot co-occur with any other temporal adverb expressing the event time in the same clause, but they can co-occur with *most* and *majd*. When they do, the proximity marker *éppen most* 'just now' has the same properties as *most*. The same is true in the case of *majd* and *majd később/idővel/egyszer*. Namely, they all can be contrasted to *most*, they all can be used in future-referring sentences containing a stative predicate, they all can be used as a one-word answer, neither can be used in the context of a promise, and they all possess the pragmatic function that *majd* does in preverbal position.

(2) Chapter 5 is dedicated to the discussion of *kellesz* 'must.fut'. The use of the structure is restricted the Northern Eastern Hungarian (NEH) and Subcarpathian ones (Kótyuk (1995), Lakatos & Tukácsné (1997), Beregszászi & Csernicskó (2007)). In Virovec (2019), we argued that the use of *kellesz* indicates that something is not necessary at present, but will be necessary in the future. In Virovec (2022), we supplemented our previous findings, and argued that the choice of the speaker, *besides the temporal factor*, is affected by: the strength of the evidence defined in the context, the proximity of the event time to the utterance time, the level of uncertainty defined in the context, and the commitment of the speaker. It has also been shown that speakers of the NEH dialect associate the use of *kellesz* with weaker necessity, softer, kinder statements and, therefore, *politeness*. The chapter presents the findings of three empirical studies (a preliminary questionnaire study on the grammatical properties of *kellesz*, a questionnaire study on the use of *kellesz*, and a production study followed by interviews), all preceded by corpus studies that were designed to identify variables that could be relevant and to determine the frequency of various uses of the structure. When giving the formal analysis of the structure, the most important element is to correctly identify its 'meaning aspects'. The two most prominent meaning aspects of *kellesz* are the following: it either emphasizes that *the scope proposition is not necessary at present*, it will (only) be necessary in the future, or that *the speaker does not know for sure that P is necessary*, because its necessity has been inferred from

indirect evidence / the speaker has second thoughts. We further argue that the latter meaning aspect developed from the 'original' truth-conditional meaning of *kellesz* via pragmaticalization. As a result of partial pragmatic fission, two different structures developed (*kellesz*$_1$ and *kellesz*$_2$), leading to ambiguity between the two. *Kellesz*$_1$ only has a truth-conditional meaning, while in the case of *kellesz*$_2$, the truth-conditional meaning is substituted by a use-conditional one. These use-conditions are the following: there is uncertainty in the context, and the prejecent event is not imminent, it is rather distal in time.

(3) Chapter 6 is about a special effect, the '*politeness effect*', which epistemic-inferential adverbs and future-referring morphemes share. According to Kugler (2010), some epistemic adverbs that express a lower degree of possibility tend to be used to mitigate the illocutionary force of a request, while those which express a higher degree of possibility tend to strengthen it. The modal force of epistemic adverbs does not represent a scale of discrete points, but they represent various degrees of likelihood (Kugler (2010:83)). This is similar in the case of future-referring morphemes. The uncertainty which is associated with their use depends on how distal the future-time (interval) they reference to is. Namely, if a morpheme cannot be used to refer to the immediate future and associated with a very high degree of uncertainty, it is more likely to be used to make an utterance politer. There are two Hungarian morphemes, *majd* 'sometime in the future, but not now' and *kellesz*$_2$ 'must.fut', which are fairly often used to mitigate the illocutionary force of a request. The consultants of the *kellesz*-using dialect argue that '*if you use kellesz, it does not need to happen at all*'. Similarly, in certain uses of it, *majd* can express that the event will happen sometime in the distal future or never. So, it is crucial to work on *the non-temporal functions of future-referring morphemes* in order to fully understand the *asymmetry between the future and the past*. These (rather pragmatic) functions cannot be ignored, and could be a new area of investigating the similarities between epistemicity/inferentiality and future-time reference.

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Appendix

7.1. **The contexts and the sentences of the questionnaire (4.1.6).**

(211) *1típus/1 Szituáció: Felhívja Önt egy szállítócég futára azért, hogy elmondja Önnek, hogy pár percen belül ott lesz Önnél a megrendelt csomagokkal. Kinéz az ablakon és látja, hogy a futár autója az utca másik végén áll. Elmegy megkeresni a pénztárcáját és a következőt mondja a párjának*:

a. A csomagom néhány perc múlva megérkezik. 5.14 (1.37)

b. A csomagom néhány perc múlva meg fog érkezni. 3.8 (1.67)

c. A csomagomnak néhány perc múlva meg kell érkeznie. 2.43 (1.66)

(212) *3tipus/1 Szituáció: A világjárvány következtében nagyon sok rossz dolog történt Önnel, elvesztette az állását, komoly anyagi gondokkal küzd. Tapasztalatból tudja, hogy az életben gyakran vannak nehezebb időszakok, de azokat általában jobb időszakok követik, ezért a következőt mondja a szüleinek*:

a. Ennyi nehézség után most már valami jónak kell történnie. 5.37 (1.22)

b. Ennyi nehézség után most már valami jó történik velem. 2.33 (1.45)

c. Ennyi nehézség után most már valami jó fog történni velem. 4 (1.7)

(213) *1tipus/2 Szituáció: A híradóban hallotta, hogy több ezer ember oltására elegendő vakcina érkezik holnap a ferihegyi repülőtérre. A szállítmány már úton van. Ön nagy örömmel mondja a lakótársának*:

a. Több ezer ember oltására elegendő vakcina érkezik a ferihegyi repülőtérre. 5.07 (1.53)

b. Több ezer ember oltására elegendő vakcinának kell érkeznie a ferihegyi repülőtérre. 2.9 (1.64)

c. Több ezer ember oltására elegendő vakcina fog érkezni a ferihegyi repülőtérre. 5.24 (1.45)

(214) *3tipus/2 Szituáció: A barátja elvesztette az egyik kabaláját és sehol sem találja. Ön tapasztalatból tudja, hogy idővel általában minden előkerül. Ön is megtalált már szinte minden korábban elveszettnek hitt tárgyat. A tapasztalataira hagyatkozva a következőt mondja*:

a. Ne aggódj, egyszer elő fog kerülni a kabalád. 5.16 (1.35)

b. Ne aggódj, egyszer elő kell kerülnie a kabaládnak. 3.91 (1.68)

c. Ne aggódj, egyszer előkerül a kabalád. 5.04 (1.44)

2tipus/1 Szituáció: János minden nap délután 4 óráig dolgozik. Tapasztalatai szerint az út körülbelül 45-60 perc hosszú János munkahelyétől az otthonáig. Ön úgy gondolja, hogy este öt órára már valószínűleg hazaér, ezért

a következőket mondja a barátjának, aki Jánosról kérdezi Önt:János 5 órára már hazaér. 3.61 (1.8) János 5 órára már haza fog érni. 4.16 (1.85) Jánosnak 5 órára már haza kell érnie. 4.44 (1.72)

(215) b. *1tipus/3 Szituáció: Tudja, hogy a rokonai a holnap délután négy órakor induló vonattal érkeznek Békéscsabáról. Ön megnézi a MÁV hivatalos honlapján, hogy mikor várható a vonat érkezése, ahol azt látja, hogy a vonat este 7-kor érkezik. (Mostanában a késések nagyon ritkák ezen a vonalon, ezt a hivatalos statisztikában látja az interneten.) A párjának a következőt mondja*:

a. A vonat holnap este 7-kor érkezik. 4.74 (1.73)

b. A vonat holnap este 7-kor fog érkezni. 4.74 (1.56)

c. A vonatnak holnap este 7-kor kell érkeznie. 4.1 (1.74)

(216) *2tipus/2 Szituáció: Tapasztalatai szerint egy szóbeli vizsga maximumom 30 percig tart. János már körülbelül 25 perce vizsgázik. Ön úgy gondolja, hogy János vizsgája nagy valószínűséggel pár percen belül befejeződik. Ezért a következőt mondja a barátnőjének*:

a. János néhány percen belül ki fog jönni a teremből. 4.84 (1.52)

b. János néhány percen belül kijön a teremből. 3.64 (1.73)

c. Jánosnak néhány percen belül ki kell jönnie a teremből. 4.1 (1.92)

(217) *2tipus/3 Szituáció: Péter nyelvvizsgát tett 3 héttel ezelőtt. Tapasztalatai szerint egy nyelvvizsga eredménye 4 héten belül általában megérkezik, ezért Ön úgy gondolja, hogy nagy valószínűséggel Péter egy héten belül eredményt kap. Azt mondja Péternek*:

a. Az eredményedet egy héten belül megkapod. 3.44 (1.84)

b. Az eredményedet egy héten belül meg kell kapnod. 4,671429 (1.6)

c. Az eredményedet egy héten belül meg fogod kapni. 4.01 (1.75)

3tipus/3 Szituáció: A barátja, János összeveszett a feleségével egy jelentéktelen dolgon. Ön tapasztalatból tudja, hogy az erős kapcsolatoknak általában egy ilyen apró nézeteltérés nem szokott véget vetni. Ön a múltbeli tapasztalatira hagyakozva azt mondja az ismerősének:A Jánosék közötti nézeteltérésnek hamarosan rendeződnie kell. 3.49 (1.99) A Jánosék közötti nézeteltérés hamarosan rendeződni fog. 4.5 (1.66) A Jánosék közötti nézeteltérés hamarosan rendeződik. 3.96 (1.78)

(218) b. *2tipus/4 Szituáció: Ön rendelt egy szép cipőt online a múlt héten. A tapasztalati szerint a bolt, ahonnan rendelte, általában minden rendelést kiszállít egy*

héten belül, ezért úgy gondolja, hogy a cipője nagy valószínűséggel a hét folyamán megérkezik. Barátjának a következőt mondja:

a. A rendelt cipőm a héten megérkezik. 3.59 (1.65)

b. A rendelt cipőmnek a héten meg kell érkeznie. 5.03 (1.5)

c. A rendelt cipőm a héten meg fog érkezni. 4.33 (1.61)

(219) *1tipus/4 Szituáció: Ön a jövő héten közgazdaságtanból vizsgázik, ezért megnézni az interneten, hogy pontosan mikorra van kiírva a vizsga kezdete. A következőt mondja a szaktársának, aki szintén Önnel együtt vizsgázik*:

a. Közgazdaságtanból délután 2-től fog kezdődni a vizsga. 4.37 (1.94)

b. Közgazdaságtanból délután 2-től kezdődik a vizsga. 4.9 (1.58)

c. Közgazdaságtanból délután 2-től kell kezdődnie a vizsgának. 2,43 (1.66)

(220) *3tipus/4 Szituáció: Az Ön párja nagyon csalódott, mert a szülei egy alaptalan vád miatt megharagudtak rá. A múltbeli tapasztalatai alapján tudja, hogy az igazság általában kiderül, ezért megpróbálja megnyugtatni a párját*:

a. Nyugodj meg, idővel ki fog derülni az igazság. 5.29 (1.25)

b. Nyugodj meg, idővel ki kell derülnie az igazságnak. 3.79 (1.85)

c. Nyugodj meg, az igazság idővel kiderül. 5.1 (1.36)

7.2. **The contexts and the sentences of the questionnaire (5.2.1.-5.2.2.)** Szabolcs-Szatmár-Bereg megye:

1. Szituáció: A fű a kertetekben nagyon hosszú. Kinézel az ablakon és észreveszed ezt. Mit mondasz a szüleidnek?

a. Le kellesz nyírni a füvet, mert nagyon nagy. 3.35

b. Le kell nyírni a füvet, mert nagyon nagy. 4.52

c. Le fog kelleni nyírni a füvet, mert nagyon nagy. 1.47

2. Szituáció: A következő tanévtől az állampolgársági ismereteket" nevű tantárgyat vezetik be. Jelenleg nincs ilyen tantárgy. Ebben a szituációban, hogy fejeznéd ki, hogy szükségessé fog válni ezt a tárgyat tanulni?

a. Állampolgársági ismereteket kell tanulni. 3.11

b. Állampolgársági ismereteket kellesz tanulni. 4.35

c. Állampolgársági ismereteket fog kelleni tanulni. 1.76

3. Szituáció: Tudod, hogy a szomszédjaid a holnap délelőtti vonattal hazaérkeznek. Keresik őket az ismerőseik, megkérdezik tőled, hogy holnap délután kereshetik-e őket otthon. Mit mondasz?

a. Holnap délután már itthon kell lenniük. 4.52

b. Holnap délután már itthon kellesz lenniük. 3.17

c. Holnap délután már itthon fog kelleni lenniük. 1.88

4. Szituáció: Nézed az időjárás jelentést. Hallod, hogy a jövő heten nagyon sokat fog esni az eső. A fű még nem hosszú, de úgy gondolod a sok esőtől nagyon meg fog nőni. Mit mondasz?

a. A füvet le kell nyírni. 3.52

b. A füvet le kellesz nyírni. 4.23

c. A füvet le fog kelleni nyírni. 1.88

5. Szituáció: Rossz jegyet kapsz egy tantárgyból, ami nagyon megnehezíti a helyzetedet. Ránézel a jegyeidre. Mit mondasz a barátaidnak?

a. Többet kellesz tanulnom. 4

b. Többet kell tanulnom. 4.35

c. Többet fog kelleni tanulnom. 1.76

6. Szituáció: Új diákmunkát kapsz. Tetszik a munka, de mindig sokáig dolgozol, és túlórát is kell vállalnod. Már egy hónapja dolgozol, amikor találkozol az ismerősöddel. Megkérdezi az ismerősöd, hogy milyen a diákmunka. Mit mondasz?

a. Jól érzem magam a munkahelyemen, de sokat kell dolgoznom. 4.82

b. Jól érzem magam a munkahelyemen, de sokat kellesz dolgozom. 2

c. Jól érzem magam a munkahelyemen, de sokat fog kelleni dolgozni. 1.35

7. Szituáció: Befejeztetek egy könyvet angolból. A tanárnő megkér titeket, hogy a jövő héten már az új könyvet hozzátok. A barátod a héten nem megy iskolába, felhív a hét közepén, hogy megkérdezze, hogy melyik könyvre lesz szükség a jövő héten. Mit mondasz a neki?

a, Angolból az új könyv kell. 3.64

b. Angolból az új könyv kellesz. 3.7

c. Angolból az új könyv fog kelleni. 4

8. Szituáció: Észreveszed, hogy kinőtted a tornacipődet, már nem tudod felvenni. Mit mondasz a szüleidnek?

a. Új tornacipő kellesz. 2.41

b. Új tornacipő fog kelleni. 3.64

c. Új tornacipő kell. 4.41

9. Szituáció: Tegnap nem voltál az esti edzésen, mert délután anyukád megkért, hogy segíts neki az esti takarításban. Megkérdezi a csapattársaid, hogy mi történt veled. Mit mondasz?

a. Anyukám azt mondta délután, hogy takarítanom kell, ezért nem tudtam menni. 4.58

b. Anyukám azt mondta délután, hogy takarítanom kellesz, ezért nem tudtam menni. 2.82

c. Anyukám azt mondta délután, hogy takarítani fog kelleni, ezért nem tudtam menni. 1.64

10. Szituáció: János eltörte a lábát, ezért már három hete nem tudja elhagyni az otthonát. Ma is egész nap otthon marad. Megkérdnek, hogy János szerinted ma délután otthon lesz-e. Mit mondasz?
a. Jánosnak otthon kell lennie, mert eltörte a lábát. 4.41
b. Jánosnak otthon kellesz lennie, mert eltörte a lábát. 3.41
c. Jánosnak otthon fog kelleni lennie, mert eltörte a lábát. 1.47

Kárpátalja:

1. Szituáció: A fű a kertjükben nagyon hosszú. Kinéz az ablakon és észreveszi ezt. Mit mond?
a. Le kell nyírni a füvet, mert nagyon nagy. 4.07
b. Le fog kelleni nyírni a füvet, mert nagyon nagy. 1
c. Le kellesz nyírni a füvet, mert nagyon nagy. 4.23

2. Szituáció: A következő tanévtől az állampolgársági ismeretek" nevű tantárgyat vezetik be. Jelenleg nincs ilyen tantárgy. Ebben a szituációban hogy fejezné ki, hogy szükségessé fog válni ezt a tárgyat tanulni?
a. A gyerekeknek "állampolgársági ismereteket" kell tanulniuk. 3.84
b. A gyerekeknek "állampolgársági ismereteket" kellesz tanulniuk. 4.15
c. A gyerekeknek "állampolgársági ismereteket" fog kelleni tanulniuk. 1.15

3. Szituáció: Tudja, hogy a szomszédjai a holnap délelőtti vonattal hazaérkeznek. Keresi Ferenc a szomszédjait. Megkérdezi, hogy holnap délután hol lesznek. Mit mond?
a. Itthon kell lenniük. 4.3
b. Itthon kellesz lenniük. 3.2
c. Itthon fog kelleni lenniük. 1.15

4. Szituáció: Nézi az időjárás-jelentést. Hallja, hogy a jövő héten nagyon sokat fog esni az eső. A fű még nem hosszú, de úgy gondolja, a sok esőtől nagyon meg fog nőni. Mit mond?
a. A füvet le kell nyírni. 3.3
b. A füvet le kellesz nyírni. 4.85
c. A füvet le fog kelleni nyírni. 1.38

5. Szituáció: Új állást kap. Tetszik a munka, de mindig sokáig dolgozik, és túlórát is kell vállalnia. Már egy hónapja dolgozik, amikor találkozik az ismerősével. Megkérdezi az ismerőse, hogy milyen az új állás. Mit mond?
a. Jól érzem magamat a munkahelyemen, de sokat kellesz dolgoznom. 2.23
b. Jól érzem magamat a munkahelyemen, de sokat fog kelleni dolgoznom. 1.23
c. Jól érzem magamat a munkahelyemen, de sokat kell dolgoznom. 4.48

6. Szituáció:A barátai megkérdezik, hogy mi történt, hogy nem tudott megjelenni a tegnap esti összejövetelen. Tegnap délután megtudta, hogy este szükségszerűvé fog válni

a ház kitakarítása. Mit mond?
a. Amikor délután hazaértem, János azt mondta, hogy takarítanunk fog kelleni este. 1
b. Amikor délután hazaértem, János azt mondta, hogy takarítanunk kellesz este. 4.15
c. Amikor délután hazaértem, János azt mondta, hogy takarítanunk kell este. 3.92

7. Szituáció: Észreveszi, hogy elhagyta a kulcsát. Sehol sem találja, így nem tud bemenni a lakásba. Mit mond?
a. Új kulcs kell, mert nem tudok bemenni a házba. 4.69
b. Új kulcs kellesz, mert nem tudok bemenni a házba. 2.92
c. Új kulcs fog kelleni, mert nem tudok bemenni a házba. 2.69

8. Szituáció: A jövő héttől nagyon rossz időjárás lesz. Az autóján még nyári gumi van. Mit mond?
a. Téli gumi kell a rossz időjárás miatt. 3.69
b. Téli gumi kellesz a rossz időjárás miatt. 3.76
c. Téli gumi fog kelleni a rossz időjárás miatt. 3.48

7.3. **The sentences of the production task and the summary of the interview of (5.3.1.)** The demographic profile of the *kellesz* users (13):
Their number, age, gender, place where they spent their childhood, education:
Participant Number 1: 63 years old, female, Mátészalka, university degree
Participant Number 4: 64 years old, female, Nagydobos, collage degree
Participant Number 5: 67 years old, male, Nagydobos-Mátészalka, university degree
Participant Number 6: 25 years old, female, Baktalórántháza, university degree
Participant Number 8: 27 years old, male, Penészlek, university degree
Participant Number 9: 25 years old, female, Mátészalka, university degree
Participant Number 10: 12 years old, female, Mátészalka, elementary school student
Participant Number 11: 15 years old, female, Ököritófülpös, high school student
Participant Number 12: 12 years old, female, Ököritófülpös, primary school student
Participant Number 18: 20 years old, female, Kisvárda, high school diploma
Participant Number 19: 26 years old, male, Szakoly, university degree
Participant Number 21: 48 years old, female, Kocsord, university degree
Participant Number 23: 65 years old, male, Kaposvár, has lived in Mátészalka since the age of 20, secondary technical school

(1) The test sentences, at first, were in random order.
(2) The participants were given an example sentence that they could modify the way they wanted to.
(3) They were asked to use a "form" of *kell* in their sentence.

(4) The situations were read to them, and they had to say the sentence in the given situation.
(5) Then the sentences were grouped according to the variables as you can see down below. (We present them in the exact order they were grouped in the second part of the interview.)
(6) The participants were asked to comment on their original choice, and tell me if they could imagine any other "form" of *kell* used in the situation (which they could read again when we discussed it).
(7) The comments are written down as they originally said them.
(8) They were first presented with an example and their task was explained to them. Those sentences and answers were not presented or evaluated. The purpose of them was to make the task clear to the participants.

The first group of sentences:

- A mai világban már nem lehet okos eszközök nélkül élni. Mindennapjaink részévé vált az okostelefon, a laptop, a notebook stb. Nap mint nap tapasztalja, hogy mekkora szükség van rájuk.
  A mai világban már mindenkinek ..... legalább egy okoseszköz. (kell)
- Azt tapasztalta, hogy a mai fiatalokat csak a különböző közösségi média oldalak és az internetes játékok érdeklik.
  Egy mai fiatalnak egy hagyományos, régi játék már nem ....., mert őket csak az okoseszközök érdeklik. (kell)
- A rezsi költségek már egy ideje nagyon magasak és a megélhetés is elég drága. Ilyen körülmények között mindenki sokat dolgozik azért, hogy egyáltalán meg tudjon élni.
  A mai világban mindenkinek sokat ..... dolgoznia, hogy ilyen árak mellett megéljünk. (kell)

– Participant Number 1: Jelenben állapítom meg, csak a *kell* jó.
– P. N. 4: A *kell* jobb itt, a *kellesz* az feltételes mód, és az arról szól, hogy tudjuk, hogy ez még nem aktuális, úgy annyira, hogy mindenkinek rögtön.
– P. N. 5: Az elsőre lehetne csak a *kellesz*-t mondani, ha nagyon akarjuk, a második, harmadiknál nem, mert ott jelen időről beszél. Ott az van, hogy egyre inkább szükség van az okos eszközökre és ebben benne van a jövő is.
– P. N. 6: Itt én ezeket nem érzem annyira jövő idejűnek, azért is nem olyan opciót kerestem. Ezek ilyen általános igazságok. Hogyha úgy olvasnád fel, hogy *kellesz*, akkor az sem hülyeség, de úgy elsőre nem azt választanám. Az olyan lenne, mintha valakit oktatnál, hogy mi az amit csinálni *kell*, hogy túlélj a 21. században.

- P. N. 8: Én azért gondoltama *kellesz*-re, mert itt a jövőre gondolok. Ezek a jövőben hatványozottabban igazak lesznek.
- P. N. 9: Ha ezekben *kellesz*-t használsz, akkor a távolabbi jövőről beszélsz, ha pedig *kell*-t, (mint a szituációkban), akkor jobban a jelenről és kötelezőbbről beszélsz [mint ahogyan itt arról is van szó].
- P. N. 10: A mai világban már minden egyre drágább, és ugye már most is sokat kell dolgozzunk, és ugye a jövő időben is sokat kell dolgoznunk egyre jobban, egyre többet. (komment: arról, hogy hogyan értelmezhető a *kellesz*)
- P. N. 11: Szerintem ezekben a szituációkban a *kellesz* nem lenne értelmes, egyikben sem, nem elfogadható.
- P. N. 12: Itt én el tudom fogadni a *kellesz*-t is ezekben a mondatokban, csak az inkább úgy a jövőben, [más szituációban]. De jobb a *kell*, mert már most is *kell*.
- P. N. 18: Ezeknél abszolút nem jó a *kellesz*, ezek ilyen általános kijelentések, hogy a mai világban mindenki kell valami vagy a régi játék nem kell, sokat kell dolgozni. Én itt nem érzem a jövő időt, hanem inkább ilyen általános tény.
- P. N. 19: Az én nyelvhasználatomban mindig egy ilyen konkrét időponthoz van kötve ez a *kellesz*. Ha egy olyan mondat lenne, hogy a jövő héten kellesz majd használnunk az órán egy okoseszközt, az jobban előhozza. De az, hogy ma már általánosan mindenkinek mindig kell bármikor bármelyik pillanatban. (komment: arról, hogy miért nem fogadja el a *kellesz*-t egyik szitóációban sem)
- P. N. 21: Ha már most szüksége van valakinek valamire, pl. egy okos telefon nélkül már egy fiatal nem tud tanulni se. Ha már most sem köti le őket, akkora a jövőben méginkább nem fogja, ezért a második szituációban jó a $fogkelleni$ is. A harmadikban is jó a *kell* is meg a *kellesz* is, de a *kellesz*-szel utalok a jövő időre, hogy még jobban (fokozottan) szükséges lesz akkor.
- P. N. 23: Az elsőnél a *kell*-et is lehet használni, mert a mai világban már elengedhetetlen, nem csak a *kellhet*. Az utolsóban is jó a *kellhet*, mert nem biztos, hogy sokat kell dolgoznia, de lehet, hogy kell, mert olyanok az a anyagi körülményei. (komment: arról, hogy miért a *kellhet*-et mondta a szituációkban)

The second group of sentences:

- Főzés közben eszébe jut, hogy egyáltalán nincs bors otthon. Így nem tudja folytatni az ebéd készítését.
  ..... egy kevés bors, így nem tudom tovább folytatni a főzést. (kell)

- Állandó rémálmok gyötrik, már nem tudja rendesen ellátni a munkáját, nagyon szétszórt, és állandóan betegségek gyötrik.
  Már megint el ..... mennem egy pszichológushoz, olyan borzasztó lelkiállapotban vagyok. (kell)

- Utazás közben megáll az autó, látja, hogy kifogyott a benzin. Nagyon rossz helyen áll az autó, és sietnének egy fontos esküvőre. Nagyon ideges, mert így nem tud továbbmenni.
  Benzint ..... hozni a kútról, mert így nem tudunk tovább menni. (kell)

- A jelenlegi autója nagyon rossz állapotban van.
  Új autót ..... venni. (kell)

– 1. A *kell* nem megfelelő, mert abban a helyzetben nincs megoldás rögtön a problémára, el kell menni, hozni kell benzint.
– 4. Az első szituációnál én azt érzem, hogy ott megijedek, hogy most kell a bors, ott nincs az, hogy majd. A pszichológushoz rá kell szánnom magamat és el kellesz mennem. Ez a jövőre teszem egy kicsit ahhoz képest, hogy a bors az most kell. Az autónál valószínűleg az befolyásolja, hogy van-e erre keret és akkor azt mondom, hogy meg kell venni, vagy pedig érzem én tudom a hátteret és azt, hogy ezt ki kellene cserélni, kellene majd venni, talán már most, de még nem aktuális. Az autó állapotától függ, de az van benne, hogy tudom-e most, vagy pedig be kell ütemezni.
– 5. Az orvoshoz elmenni vagy pszichológushoz menni az olyan, hogy tudom én, hogy kell, de halogatnám, hogy majd el kellesz mennem, de a többinél meg elég konkrét és gyors a beavatkozás. Borsért is el kellett menni egyből, meg a benzinért is, tehát ebből a pszichológusos kérdésből van egy ilyen személyes ok, hogy jobban meggondolom. Az autónál meg attól függ, hogy mennyire rossz az az állapot, ha nagyon rossz, akkor határozottan menni kell és venni, ha még javítható, meg [most még] van más megoldás, akkor jó a *kellesz* is.
– 6. Ezek így ha egyben nézem így a négyet nem kívánják meg szigorúan a jövő időt, így a *kell* és a *kellesz* mind a kettő. De a jelenbe helyezve ez a borsos és ez a benzines így passzol. (Komment: arról beszél, hogy miért a *kell*-et választotta) Új autót venni az nem olyan egyszerű, mint venni egy kis borsost, választás, anyagi háttér, ahhoz sok idő kell. A második szituációban is az nem olyan dolog, hogy csak fogod magad és elmész, azt le kell egyeztetni, eltervezed, hogy egyáltalán felívod a pszichológust, időpontot tervezel stb. Azt jobban a jövőben érzem, mert az nem olyan dolog, hogy csak eldöntöd és mégy, még borsot venni az meg csak bemész a boltba és ott van, nem igényel tervezés, szervezést.

– 8. Én arra gondolok, hogy tulajdonképpen itt nem a jelen időt mondanám egyik esetben sem, hanem a folyamat befejezéséhez szükséges feltételről beszélünk, ami majd a jövőben fog megtörténni. Tovább akarunk menni az autóval, de az nem most fog megtörténni, hanem azután miután elemegyünk a kútra. Én ha foggal mondanám, akkor is azt mondanám, hogy kelleni fog egy kevés bors, hogy befejezzem a főzést.
– 9. A bors az a közeli jövőről szól [ezért *kell*], az autónál az pedig távolabbi jövőról szól, azért inkább a *kellesz*. A *kéne* az is valamilyen szinten a jövőre utal, de inkább ilyen feltételesen, hogy el kellene, de még nem döntöttem el, hogy igen vagy sem.
– 10. A *kellenifog* jövő időre utaló és a szituációban az volt, hogy bors kell és nem volt otthon, tehát valahonnan szereznie kelleni fog majd neki. A benzinesnél nem jelen időben kell, mert tudja, hogy el fog fogyni. A másik két szituáció is jövő idő, mert borzasztó a lelki állapota, ezért muszáj elmennie egy pszichológushoz. Hogyha azt mondta volna, hogy el kell mennem egy pszichológushoz a megint nélkül, akkor a *kell* szó a helyes, de hogy megint ott van, így muszáj elmenni, önszántából nem szeretne szerint elmenni a pszichológushoz. Az utolsóban is muszáj vennie új kocsit, mert azzal a régi kocsival már nem mehet tovább. A *kellesz* az inkább azt jelenti, hogy nem akarja, de mégiscsak kell.
– 11. Ha például a második szituációt *kell*-el mondom, akkor az úgy határozottabb, viszont ha azt mondom, hogy el kellesz mennem, akkor még nem vettem rá magam, hogy elmenjek, csak majd el fogok menni, ha rossz lesz. Az utolsó szituációban a *kellesz* is jó lehet, ha azt használjuk azzal azt éreztetjük, hogy rossz, de még kibírja egy darabig az autó.
– 12. Én itt mindenhol el tudnám fogadni a *kell*-t is, hogy pszichológushoz kell mennem, de nekem először a *kellesz* jutott ott eszembe.
– 18. Nekem ezek a szituációk tipikusan olyanok, amikor a *kellesz* jön a számra. Pont Apa is mondott ilyet, hogy új autót kellesz venni a nap folyamán és nekem ez így nagyon természetesnek hangzik. Amikor hirtelen így valamit, hogy kellesz egy kis bors vagy benzint kellesz hozni a kútról. Amikor valami nagyon hirtelen jön, akkor én arra mindig a *kellesz*-t szoktam használni. Amikor hirtelen felindulásból mondok valamit, hogy rossz az autó és kellesz egy új vagy éppen főzök és akkor hirtelen eszembe jut, hogy kellesz egy kis bors. Ezek hirtelen gondolatok, azokkal mindig a *kellesz*-t érzem a legjobbnak.
– 19. Most rossz a kocsim, eltervezem, hogy akarok venni, de még nem tudom, hogy pontosan mikor, határozatlanságot érzek, ebben a *kellesz* szóban. Ha

már azt mondom, hogy kell venni, akkor az konkrétabb, hogy akkor most fogom magamat és megveszem, de még ha kellesz, akkor igen majd, majd fogom. Amikor így mondjuk, hogy ezt 'fel kellesz fúrni' ebben van ilyen bizontalanság. A *kell* határozottabb, a *kellesz* nem határozott.

– 21. Nagyon kellene, mert nincs otthon bors. Pl a pszichológushoz *kell*-et mert oda fontos lenne már elmennem. Főzés közben jobb lenne, ha lenne, finomabb lenne, ha lenne benne bors, de így is meg lehet enni. Ha azt mondom, hogy autót kell venni, akkor az már egy ilyen biztos dolog, hogy itt nincs most már más megoldás, mert muszáj. De a *kellesz* az ilyen, hogy a jövőben valamikor akkor mostmár fog kelleni egy autót venni, akkor ez éppen még elmegy. De viszont utalok arra, hogy a jövőben már tervbe van, és akkor viszont kell majd venni. Úgy gondoljuk, hogy a pszichés állapot sem életveszélyes, de az se olyan, hogy most azonnal. Ha meg tovább akarsz menni az azonnal kell (komment: a benzinről beszél).
– 23. Az elsőbe még a *kellhet* is jó lehet, az elsőben fog kelleni a bors még, hogy tudjam folytatni a főzést. A benzines szituációban jó a *kell* is. Az autós szituációnál a *fogkelleni* helyett a *kellesz*-t is lehet használni. Abba a szituációban a *kell* nem biztos, hogy jó, mert nem biztos, hogy van rá pénzem. Függ az autó állapotától is, hogy kell-e, ha nagyon rossz állapotban van akkor új autót kell venni, de a lehetőségek nem biztos, hogy adottak. Egyszerűbb benzint meg borsot venni.

The third group of sentences:

- Tavaly nyár óta nem volt a nyaralójukban, nem tudja, hogy jelenleg milyen állapotban van. Tavaly minden eddiginél keményebb tél volt. Az ismerősei is súlyos állapotromlásra panaszkodtak.
  Egy teljes felújítás ....., mert szerintem már olyan állapotban van a nyaraló, hogy oda már nem tudunk menni. (kell)

- A barátja egész múlt héten bulizott, semmit sem tanult a vizsgájára, és a vizsgáztató tanárnő is nagyon szigorú. Nem beszélt vele a héten, de nagyon nehezen tudja elképzelni, hogy így sikerült neki a vizsga.
  Péternek javítóvizsgát ..... tennie menedzsmentből, ilyen állapotban nem mehetett át. (kell)

- Látta a barátja balesetét, ami nagyon súlyosnak tűnt. Valószínűsíti, hogy nyílt törése is van. Nem hívta fel, mert nem szeretné a kórházban zavarni.
  Katit műteni ....., szerintem ilyen súlyos sérüléssel jó, ha csak egyszer. (kell)

– 1. Ezeknél több lehetőség van még, pl. az utolsóban, lehet, hogy nem is kell műteni, lehet, hogy terápiával is orvosolható, tehát nagyon sok lehetőség van, ezért használom a *kellesz*-t.
– 4. A felújításnál, majd ott fog eldölni [amikor megnézzük] és utána fogjuk megcsinálni, ezért gondoltam én a *kellesz*-re. Még meg kell bizonyosodnom arról, hogy amit gondolok valóban úgy van-e. Mondjunk a Péternek javítóvizsgát kellesz tennie, így nem mehetett át, ott is van egy olyan bizonytalanság, ami még nem teszi most, pont aktuálissá, lehet, hogy aktuális, de meg kell bizonyosodnom róla, akkor mondhatom a *kell*-et.
– 5. Ezeknél a *kellesz* az jobb illik nekem, nem az, hogy *kell*. A *kell* csak, akkor, ha oda megyek és látom, hogy kell, tudom, hogy kell.
– 6. Az elsőnél azért nem használtam a *kellesz*-t, mert, hogy nem biztos, és ezzel egy kicsit bizonytalanabb jövőidőt fejeztem ki, mert ugye még nem láttam, ezért nem tuti, csak hogy így feltételezem. Egyiknél se *kellesz*-t választottam, ahol feltételezek, csak az utolsónál, mert, hogy ugye ott láttam a balesetetet és abból már következtettem arra, tudom, hogy Katinak ez egy komoly kórházi látogatással fog járni. A *kellmajd* úgy kevésbé biztos, mint a *kellesz*. (komment: Arról, hogy mit használna még, és az mit fejezne ki.)
– 8. Az alapján amit én gondolok, én úgy vélem, hogy egy teljes felújítás kellesz majd a jövőben, ha én oda akkor viszajárni nyaralgatni, akkor a jövőben ez fontos lesz. A második szituációan is, az alapján amit láttam, amit én tudok, szerintem mindenképpen javítóvizsgát kellesz tenni, és ugyanez igaz az utolsóra is. Ez így hangzik jól. Ha valaki *kell*-et mond az is oké, csak abban nincs benne ez a bizonytalanság, vagy nem is bizonytalanság, hogy nem az alapján amit én gondolok, hanem nagyon objektíven és tényszerűen, és ez az itt és most. A *kellesz*-nél annyira nem muszáj ennek bekövetkeznie.
– 9. Az utolsó biztosabb, mert ha törése van, akkor így nagyon esélyes, hogy tényleg műtét lesz. Míg a többinél van egy kis kételkedés benne, ott jobb a *kellesz*.
– 10. Igazából ott csak sejti, valószínűsíti az utolsóban, mert kórházban van és az is jövő idő, hogy megműtik. Az első kettő nekem biztosabbnak tűnik, mert ugye ott tudod, hogy bulizott és úgy ment vizsgázni, meg, hogy a szomszédok is állapotromláról panaszkodtak, de azt, hogy a lányt hányszor kell műteni azt nem tudod.
– 11. Ha az elsőben a *kellesz*-t hasznájuk, akkor az nem olyan sürgős, mindkettőt használnám, ott mind a kettő jó. De a másodiknál nem lehet azt mondani, hogy Péternek javítóvizsgát kell tennie, mert nem vagyok benne

biztos, az *kellesz*. Az utolsóban attól függ, hogy mennyire vagyok benne biztos, én nem mondanám a *kell*-lel, mert én nem értek hozzá.

– 12. Itt lehetne mondani, hogy *kell*, csak az mást jelent, azért inkább *kellesz*. A kell az arra utal, hogy már most kell.
– 18. Az elsőben a *kell*, a *kellmajd*, *kellesz* is jó. A másodikban biztos, hogy *kellesz*, úgy tudom elképzelni, hogy *kellesz*. A biztos, az inkább olyan, hogyha szóban mondunk valamit, hogy fú hát tuti, biztos, hogy az úgy lesz, és én ahhoz valahogy hozzá csatolom a *kellesz*-t valamiért. De hogyha nincs ott, hogy biztos, akkor a *kellmajd* úgy jobban hangzik, oda nem tudom elképzelni a *kellesz*-t. Az utolsóban a *kellmajd* vagy *kellesz* is jó. A két szituáció között nincs nagy különbség. Az utolsó se biztos, mert benne van, hogy szerintem. Akkor mondanám, hogy *kell*, ha orvos mondja, de így hogy egy véleményt mond így *kellesz* vagy *kellmajd*. Mind a kettőt egy véleménynek érzékelem, de a Petiset ilyen rosszindulatú mondatnak érzem és a Katisat meg inkább így aggodalomból mondják.
– 19. Igen, a teljes felújítás az egy olyan határozatlan fogalom, nyilván az egész ingatlant nem fogjuk felújítani, és ugyanígy a másik szituációban is benn van, nem tudjuk biztosan, hogy megbukott Péter, de valószínűleg kellesz javítóvizsgát tennie, mert azt feltételezzük, hogy megbukott, és a másik is ilyen feltételezés, hogy biztosan kellesz egy felújítás. Az utolsóban azért jobb a *kell*, mert ha valakit műteni kell, akkor műteni kell, mert van rajta hangsúly. A határozottságot tudjuk kifejezni. Már ha bele tennénk, hogy a jövő héten, akkor *kellesz*, meg az ilyen rövidebb mondat és abban jobb a *kell*.
– 21. A *kell*-t azt akkor használnám, ha biztosan tudom, hogy már romos állapotban van, de a *kellesz*-t akkor még bizonytalan még csak lehet, hogy felújítás lesz, ha meglátom, hogy milyen állapotban van. A második szituációban, még nem tudjuk az eredményt annyira. Szerintem a *kell*-t itt ne használjuk inkább, csak a *kellesz*-t, mert az még bizonytalan, hogy neki vizsgát kell tennie, a *kell*-t csak akkor használnám, ha már konkrétan tudom, hogy megbukott. Ha tudnám, hogy megbukott, de nem tudom, mert nem beszéltem vele, így csak sejtem, ezért nem száz százalékban, így inkább a *kellesz*-t. Az utolsóban benne van az, hogy nem most fogják rögtön műteni, hanem a jövőben. Nem tudunk annyira biztos dolgokat itt se, csak azt, hogy súlyos. Ez a *kellesz*-t akkor, ha lehetséges a szituáció, mert nem tudjuk biztosra, mert nem vagyunk orvosok, nem vagyunk szakértők, hogy most ebből olyan következtetést le tudjunk vonni, hogy ezt műteni kell vagy nem.
– 23. A teljes felújításhoz az első szituációban a *kellesz* használható, a *kell* az nem, mert lehet, hogy olyan a szituáció, hogy kellesz, de nem biztos, hogy

megviselte annyira tél, hogy mindenképpen kell. De a másodikban sem biztos, hogy Péter a bulizás mellett olyan állapotban van, hogy ne tudjon levizsgázni, és ezért a feltételes mód a *kellesz* vagy *kellhet*, a *kellhet* is jó. A *kell* nem. Az utolsóban is én nem tudom eldönteni, hogy kell-e vagy nem, tehát az is *kellhet*, feltételes módban, mert nem vagyok orvos és nem tudom eldönteni, hogy műteni kell vagy nem. A *kellesz* is feltételes mód, az jó, de a *kell* az nem. Ezekben csak a *kellhet* vagy a *kellesz* jó.

The fourth group of sentences:

- Nagyon megtetszettek a vízisportok egy nyaralás során, de tudja, hogy azok nagyon költségesek.
  Nagyon tetszenek a vízisportok, de már előre tudom, hogy állandóan új deszka, új hajó, új ruha ....., ezért bele se fogok a dologba. (kell)
- Az albérlet, ahol jelenleg lakik, nagyon rossz állapotban van, a leomlás fenyegeti. Egy félév múlva költözne át egy jobb helyre.
  Innen már nem is ..... kiköltöznünk, mert addigra ez az épület szerintem ránk omlik. (kell)
- A járvány negatív hatásaként a személyes találkozások száma jelentősen lecsökkent. Manapság már egyre több mindent az online térben intéznek az emberek, és sokan otthonról dolgoznak. Meggyőződése, hogy az egyetemeken is csak online órák lesznek a jövőben.
  Majd meglátjátok, hogy jelenléti oktatás sem lesz. Valami mást ..... kitalálni szocializálódásra. (kell)

– 1. A jövőben fogom csinálni, ha meglesznek a megfelelő feltételek (körülmények), majd akkor kellesz.
– 4. Ha *kell*-et használunk, akkor az azt teszi nyomatékossá, hogy pl. az épület ránk omlik, ha valóban olyan állapotban van, akkor a kell ott megállja a helyét. Mivel az utolsó mondat úgy kezdődött, hogy majd meglátjátok, ott én kicsit így hagytam, hogy igen, ezt majd ki kellesz találni.
– 5. A *kell* és a *kellesz* az utolsó kettőnél szinte egyenrangú. Mind a kettő a jövőről szól. Mind a kettőnél használható mind a kettő. Az elsőnél, hát a *kellesz*-ben is van egy kis előremutatás, de a $fogkelleni$ az úgy inkább jövőre utal. Ez itt még nem olyan közeli jövő, ezért mondtam, hogy $fogkelleni$.
– 6. Az első mondatról az jut az eszembe, hogy az hasonlít egy korábbi mondathoz, ahol viszont a $fogkelleni$-t használtam. Az biztos, hogy ez jövő idős, mert ha új, akkor azt folyamatosan a jövőben fogja az ember vásárolgatni, ide azért nem jó a *kell*. A másodiknál mind a kétféleképpen lehet értelmezni, *kell* vagy *kellesz*, hogy később nem kell kiköltözni. A harmadiknál a *kell*-es opció az lenne, hogy már most ki kell találni, hogy a jövőben mit csinálunk

majd, a *kellesz*, hogy még csak a szándékot határozzuk meg és hogy később megcsináljuk, mert később lesz ez a jelenléti oktatás hiánya.

- 8. Az elsőnél az egyértelmű, már előre tudom, mert még nem fogtam bele, majd a jövő időben lesz ez szükséges, a második esetben is egy jövő idejű dologra gondolunk. Ez a jelenben nem szükséges, de a jövőben az lesz. Szerintem az a hasonlóság, hogy a jelenben nem szükséges, de jövőben az lesz.
- 9. Az elsőben jobb a *kellesz*, mert az olyan távolabbi jövő.
- 10. Az első szituációban bele vágott volna, de így lebeszéli magát arról, hogy mindig új ruha stb . kell, és nem akar költségbe verni. A 'nem kell kikötözni' nem jó, mert az épület majd rá fog omlani, nem most.
- 11. Az utolsónál lehet *kellesz* és *kell* is, de ha *kellesz*, akkor az ráér egy kicsit később is.
- 12. Itt lehet bárhova használni a *kell*-et meg a *kellesz*-t is. De ha *kell*, pl. az utolsóban akkor pl. már most ki kell találni, ha meg *kellesz*, akkor meg nem most, hanem később.
- 18. Én az elsőben azt is el tudom fogadni, hogy *kellmajd*, és abszolút nem érzek különbséget. A másodiknál mindenképpen a *kellesz*, mert az ilyen ironikus és a barátnőimmel is mindig azt mondjuk és nekem az olyan furcsa, ha nem a *kellesz* van benne. Az utolsónál ugyanaz, hogy a *kellesz*, mert akárhányszor arról beszélünk, hogy jelenléti oktatás már nem lesz, valami mást kellesz kitalálni, hogy hogy fogunk találkozni. Van olyan kontextus, ahol el lehet képzeli a *kell*-t, ebben nem.
- 19. Az első szituációban az állandóan új deszka fog kelleni, de ha pl az lenne, hogy folyton kellesz, azt már jobbnak érzem, mert az állandóan az inkább állandóság. A második szituációban én inkább ugye főnévi igenévvel használom, úgyhogy ott jobb a *kellesz*. A második szituációban igazából a *kell*-el is jó a mondat. Az utolsó szituációban teljesen jó a *kellesz*, de rövidebb a mondat és az egész mondatnak van egy ilyen határozottsága, ilyen parancs szerű nekem ez a mondat.(komment: Arról, hogy miért használt az utolsó mondatban *kell*-t.)
- 21. Szerintem a *fogkelleni* az még olyan előszobája a *kellesz*-nek, az még úgy bizonytalanabb, hogy *fogkelleni* ez is az is. A második szituációban lehet a *kellesz*-t használni, akkor az még kicsit ilyen viccesebb, akkor még nem vagyok ideges, de ha *kell*-el mondom, akkor már ideges vagyok, de a *kellesz* az még kicsit kedvesebb. Az utolsóban is lehet *kell*-t és *kellesz*-t is használni, de ha *kell*, akkor most fontos, azonnal rögtön, de ha meg *kellesz*, akkor meg kezdjünk el agyani, hogy mi legyen.

– 23. Az elsőben nem jó a *kell*, mert az nem feltétlenül szükséges az új ruha, az új deszka. A másodiknál *kellhet* is jó, mert nem biztos, hogy ki kell költözni, feltétes módban mindenképp és azért van a k*ellhet* meg a *kellesz*. A fog kelleni kitalálni jó, mert még nincs meg a pontos szituáció, hogy hogy fog lefolyni a járvány, ezért a fog kelleni mindenképpen jó. A *kellesz* is jó. De *kell*, ha a járvány olyan stádiumban van, hogy mindenképpen ki kell találni, de hogyha enyhébb lefolyású akkor *kellhet* és *kellesz*.

The fifth group of sentences:

- A diákok a jövő héten írják az érettégit.
  A matematika érettségin számológép és függvénytáblázat ..... (kell)

- Az iskolában a tanárnő ma feladott egy szöveget és pontosan egy hét múlva feleltet belőle.
  Az iskolában ezt a szöveget el ..... mondanunk fejből. (kell)

– 1. Ez az elkövetkezendő időkben fog megvalósulni és nem most azonnal rögtön a jelenben. Jelenben nem kell a jövőben kellesz.
– 4. A *kell* az eléggé ráutaló, de itt nem nagyon van olyan választás, hogy majd talán holnapután, mert ha kell, akkor azt meg kell csinálni, ezt erősebbnek érzem.
– 5. Az elsőben itt nem illik a mondatba a *kellesz*. A másodikban kötelező beszámoló lesz, tehát feleltet belőle és jövőbeli esemény, tehát a *kellesz* is megállja a helyét. A *kellmajd* és a *kellesz* egyenragú itt, a *kellesz* is erős. A kettőből bármelyik jó. Azért kell itt jövő idő, mert egy hét múlva lesz belőle felelés.
– 6. Az elsőnek megint lehet általános tény, hogy az érettségire kell és kész. Hogyha jobb [részletesebb] kontextust kapnék, akkor lehet, hogy egy választ tudtam volna csak megadni, de így most nem tudom, hogy általánosan beszélek róla, hogy azt kell, vagy ezt így valakinek mondom, hogy az is fog kelleni neked, úgyhogy vidd majd magaddal. A második szituációban azért *kellesz*, mert egy hét múlva kell, azért választottam a jövő időt.
– 8. Az első úgy általában igaz. Én nem arra gondoltam, hogy konkrétan a jövő heti érettégin. A *kellesz*-től ez egy határozottabb a dolog (komment: Az olyan szituációktól, mint amelyekben használná a *kellesz*-t, ez egy határozottabb szituáció.), ez *kell*, mert az nagyon szükséges, nagyon fontos. A második is nagyon határozott dolgot fejez ki, itt azt is mondhatnám, hogy muszáj, meg az is, hogy a jövő időben lesz. A *kellesz* ebben a mondatban

nem jó, mert az nagyon jelen idejű dolog, ha jövő héten lesz, akkor inkább *kellesz*.

- 9. A *kellesz*-t is simán lehet használni ezekben, nem nagyon van a kettő között különbség. A *kell* esetében lehet általános olvasat.
- 10. A másodiknál azért *kell* és nem *kellesz*, mert az kötelezettség, hogy ugye meg kell tanulni és utána fel kell mondani. A kell az kötelezettséget fejez ki, a *kellesz* nem.
- 11. Itt lehetne a *kellesz*-t is használni, csak így elsőre nekem nem az ugrik be. Nem nagyon van különbség a *fogkelleni* és a *kellesz* között.
- 12. Ha azt mondanád, hogy *kell*, az kicsit erősebb, mert már most azonnal kell. Itt is jobb a *kellesz*.
- 18. Lehet itt *kell*-et is használni, de ha egy hétköznapi beszélgetésre gondolok és mivel jövő idő a *kellesz*-t használnám. Majd hoznotok kellesz, azt mondod. Ha általános kijelentés, akkor a *kell* jobban hangzana oda. Az utolsónál a *kell*-et, *kelleszt*-t vagy a *kellmajd*-ot is lehet használni az összessel meg vagyok elégedve, nem érzem, hogy lenne különbség köztük.
- 19. Nyilván jó a *kell* is nyelvtanilag, de ha azt beszéljük, hogy holnapra ez kellesz az kellesz, mindig a *kellesz*-t használjuk. A második szituációban is van egy ilyen időbeli dolog, hogy ezt majd meg kell vagy meg kellesz csinálni. Ez egy ilyen a jövőben kézzel foghatóan kitűzött cél, hogy ezt majd meg kellesz csinálni és nem is olyan hosszabb távon. Ha a *kelleszmajd*-ot használod az még határozatlanabb, mert ott nincs időpont.
- 21. Ez a *kellesz* konkrétabb szituációkban használatos, de ha *kell*, akkor tudja mindenki, hogy kell az értettségire függvénytáblázat. A *kellesz* azt mutatja, hogy egy hét múlva, a *kell* meg, hogy határozottan, hogy ezt mindenkinek tudnia kell fejből. A *kell* az fontosabb, a *kellesz* az egy kicsit lágyabb, de az is, hogy majd a jövőben fog kelleni.
- 23. A *kell*, az is jó, mert ha olyan feladatokat kap az érettségin, akkor kell, de ha nem biztos, hogy olyanokat kap, ezért *kellhet*. A másodikban a *kellesz* is használható és a az *fogkelleni* is jó. Azért jobb a *kell*, mert az a feladat és akkor azt el kell mondani fejből, az biztos.

The sixth group of sentences:

- Már régen árulta az autóját, amikor egy hete a szomszédja megkarcolta az oldalát, ezért nagyon mérges volt. Tegnap előtt azonban váratlanul elkelt az autó, így már nem haragszik rá.
  Leszidtam a szomszédomat, hogy így már végképp nem ..... senkinek sem az autó, de mégis kellett, mert tegnap előtt eladtam. (kell)

- Rosszul érezte magát egész múlt héten, már azon gondolkozott, hogy lemondja az erre a hétre esetédes találkozót, de végül mégis jobban lett. Azt mondtam mindenkinek, hogy le ..... mondani a találkozót, de hirtelen annyit javultam, hogy itt vagyok. (kell)

– 1. Először a jövőben tekintettem, mert le kellesz mondanom, de mindig a jövőben használom a *kellesz* szót.
– 4. Azért mondtam *kellesz*-t a találkozónál, mert ott, per pillant bizonytalan vagyok és előrevetítem, azt hogy én talán nem tudok elmenni. Az elsőnél az volt az érzésem, hogy ott is majd nem kell.
– 5. Az autónál lehetne *kellesz*, de a másodiknál is, mert a múltbeli nyilatkozatomról beszélek. Egy félelem, egy érzés, hogy le kellesz majd mondani a találkozót, de végül is mégis itt vagyok. A *kell* határozottabb, hogy le kell mondani a találkozót, akkor határozottabbnak érzetem, hogy le kell mondani a találkozót, de végül is mégse kellett. A *végképp* miatt határozott az első, és 'a végképp kellesz' az úgy nem jó.
– 6. Az utolsóban a *kell* is jó, hogy le kell mondanom a találkozót. Szóval ezeket mindegyikkel el tudod fogadni.
– 8. Abban a múltbeli időpontban egy jövőbeli dologról beszéltem, ezért itt jó a *kellesz*, de az, hogy mégis kellett az nem befolyásolja azt a dolgot, amit mondok. Ez igaz a másodikra is, a második része a mondatnak nem befolyásolja az elsőt. A múltban gondoltam, hogy a jövőben valami lesz.
– 9. Ezekben természetes a *kellesz*.
– 10. Még a múltban az volt a sejtése, hogy senkinek nem kell a kocsi megkarcoltan és használtan, tehát *kellesz*. A múltban mondta mindenkinek, hogy le kell mondania, de a jövőre tekintően kell majd lemondani, de egy csoda folytán meggyógyult így nem kellett, ezért *kellesz*.
– 11. Itt én nem mondanám a *kell*-t, mert utána mondom, hogy mégiscsak megvette valaki. A másodikban lehet a *kell* vagy a *kellesz*, jó mind a kettő, de inkább a*kellesz*.
– 12. Itt is lehet mondani a *kell*-et is, meg a *kellesz*-t is, végülis mind a kettő jó, de a *kellesz* természetesebb.
– 18. A *végképp* miatt tényszerűen közli, a *kellesz* az túl laza oda, a le kellesz mondani a találkozót az is úgy jól hangzik nekem.
– 19. Az első mondatban benne van, hogy *végképp* és az határozott, végképp nem kell és szerintem ez a *kell* vagy *kellesz* együtt mozog a szókörnyezettel.

A másiknál meg ugye megint ott a főnévi igenév és én akkor inkább a *kellesz*-t használom.

– 21. Amikor még beszélt, akkor nem adta el az autót, az ilyen jövő idő volt, vagy a *fogkelleni* vagy a *kellesz*. A második szituációban is lehetett volna mondani, hogy le kell vagy le kellesz mondani a találkozott. Az állapottól is függ, a *kell* az egy ilyen határozott nem, a *kellesz* meg bizonytalanabb.
– 23. Az első szituációban *kell*-et nem lehet mondani, mert nem vagy benne biztos, hogy így nem kell, mert lehet, hogy van valami értékcsökkenés, de valahogy megveszik az autót. A *kell* ide nagyon erős, a *fogkelleni*-t lehet mondani. A másodikban lehet a *kellesz*-t is használni, mert akkor még nem tudtam, hogy milyen állapotban leszek és akkor le kell mondani, meg feltételes módban is lehet mondani, nem lehet kijelenteni, hogy biztos, hogy olyan állapotban leszek, hogy nem fogom tudni megcsinálni.