Abstract. The paper shows how four combinations of 1st person pronoun + epistemic verb emerge as adverbs in contemporary spoken Estonian, arguing that word classes have fuzzy boundaries. Excerpts from naturally occurring conversations demonstrate how *ma tean* 'I know', *ma usun* 'I believe', *ma arvan* 'I think', and *mai tea* 'I don’t know' are used in varying positions in relation to the commented clause with the prosody that usually suggests their integration into these units. The items display somewhat divergent semantics as compared to their components, expressing degrees of epistemic certainty and uncertainty as well as personalized stance.

Keywords: epistemic phrases, epistemic adverbs, emergence, grammaticalization, parentheticals, prosodic integration, Estonian

Grammar comes into being in the everyday use of language. This paper demonstrates how four combinations of 1st person pronoun and present tense epistemic verb emerge as adverbs in contemporary spoken Estonian. The analysis is grounded in the understanding that grammar is constantly “done” in our everyday interaction, it is preserved, negotiated, and changed in encounters between the speakers. In other words — it emerges. Some parts of grammar are more stable, others more fluid, and the linguistic structure is constantly created and recreated via usage. Conversation is a crucial locus of grammar and its emergence.

The suggestion to use the term *emergent grammar* was first made by Paul Hopper who argued that grammar has to be seen as a real-time social phenomenon, the structure of which is always provisional, always negotiable, and in fact epiphenomenal, as much an effect as a cause (Hopper 1987: 142). Grammar is very much like culture, which is obviously temporal, emergent, always disputed, and forever changing, and this is also valid for grammar. According to this line of thought, structure (grammar, meaning) can be accepted to be much less rigid than what is often assumed, and to inherently involve fuzzy categories (Bybee 1985). Grammar is more a result of spreading of systematicity via repetition than an overarching set of abstract rules (Hopper 1987: 143—144). Structure is a product of, rather than a prerequisite for, communication, it is an adaptive response
to recurrent habits in the way people talk to each other. Obviously, socio-cultural linguistic practices are passed down to us from within the speech community. The linguistic structures are already there when we, as actors, enter the continuity of practice. Nevertheless, they are interactionally generated, renegotiated and redefined (Linell 1998: 125). The generation and renegotiation is tackled by the notion of emergent grammar.

One major outcome of this kind of understanding of language structure is that diachrony and synchrony fade into each other — synchrony is at the same time diachrony since even the synchronic structure crucially depends on repetition and the experience of individual speakers. Also the changes in languages and grammars happen because over time utterances are repeated. Routine repetition may eventually bring about changes in the structure. Repetition may lead to formal reduction, but it may also drain meaning away. This is what can be observed to be happening with some epistemic verb forms in Estonian. Some of them display phonetic assimilation, they may be used with a specialized meaning and they have emerged in a new syntactic role. Also, they lose in pragmatic significance as they tend to have a subsidiary role in a syntactic unit, adding a stance or functioning as an emphizer. More precisely, they seem to have undergone a process of subjectification, i.e. they acquire meaning characteristics that pertain less to the world being talked about and more to the speaker’s organization of that world in the act of speaking (Traugott 1980 : 47; 1989 : 540; 1995; 1997). In this process, as in any kind of linguistic change, frequency is crucial, as it may affect and, ultimately, bring about new form in language (Bybee, Hopper 2001). Frequent phenomena tend to become routinized and potentially lead to change. Speakers can, for example, create new structure by frequent use of certain word combinations in new functions. High-frequency items are also subject to emancipation, i.e. disassociation from the original motivation). Analyzing emergent phenomena thus necessitates a complementary qualitative and quantitative approach.

Processes whereby a form, a combination, or a group of forms is singled out from what was once a more extensive paradigm, fixing or routinizing a meaning or discourse, has often been considered the domain of grammaticalization theory. When it comes to the combinations of pronoun + verb, often classified as *parentheticals* or *comment clauses*, there has been some discussion as to whether their emergence as specific linguistic items should be characterized as grammaticalization or pragmatization (Waltereit 2002). Formally and semantically, however, the development of many pragmatic markers is consonant with the notion of grammaticalization, and some studies (most notably Brinton 1996 : 272; 2001) argue that it is plausible to account even for pragmatic categories within a theory of grammaticalization. The difference is that in one case the resulting unit is a grammatical item and in the other case, a pragmatic item. Deverbal items discussed by Brinton, such as *I mean* and *y’know*, have discourse structuring functions. In general, it is safe to claim that routinization accounts widely for how language evolves and emerges. Studies on grammaticalization have shown how semantic change involves a gradual loss of propositional meaning in favor of a grammatical or pragmatic meaning, underlying the formation of adverbs such *indeed* and *in fact* (Traugott 1995). The current paper addresses four Estonian word combinations *ma tean* ‘I know’, *ma usun* ‘I believe’ *ma
arvan 'I think' and ma ei tea 'I don't know' that seem to be undergoing the same kind of process, acquiring a novel syntactic function. A crucial facet in the variable syntactic-pragmatic usage of this type of items is their prosody, which may distinguish the different functions (Dehé, Wichmann 2010). The study therefore qualitatively focuses on syntactic and prosodic features of these items.

The data come from two spoken language corpora. The first one consists of naturally occurring telemarketing calls as well as everyday calls between family members, relatives, friends, and colleagues. There are about 103,000 words in the corpus and it was recorded in 1997/1998. The other corpus is publicly available, http://www.cl.ut.ee/suuline/Korpus.php, and constantly growing, but the version checked for the patterns discussed in this study consisted of about 230,000 words. The data comes from a variety of settings, including face-to-face conversations. Unfortunately, not all the sound files for the corpus are available.

Clausal usage

The epistemic verbs arvan- 'think (have the opinion)', usku- 'believe', and tead- 'know' are prototypical transitive verbs that take two arguments, one of which can be a complement clause. The pattern is illustrated in (1—4). The subject + predicate + complementizer are boldfaced. In the negative clause the pronoun and the negation word are regularly assimilated in Estonian (e.g. ma + ei = mai).

1. E: tere, %ee (.) ma tean et ma elistan valesse kohta, hi I know:1SG that I call:1SG wrong:ILL place:ILL aga äkki te teate et õiget, ma tean et but maybe you:PL know:2PL that right:PRT I know:1SG that te ka laenutate välja kõostüüme. you:PL too lend:2PL costumes:PRT 'Hi. I know, I'm calling the wrong place but maybe you know the right one. I know that you lend costumes too.'

2. K: m:::a usun et ma tellin jah, I believe:1SG that I subscribe:1SG yeah 'I believe, I'll subscribe (to the newspaper)'

3. K: no ma arvan et kuu pärast NO I think:1SG that month:GEN after <$ vōite ikka elistada. @> may:2PL İKKA call:INF 'Well, I think you can call in a month.'

4. P: ei, m hh mai tea kas sa mind tāna vēlja kannatad, no I:NEG know QUES you me today put.up.with ma olen tāna niukseid lōlluseid teimud et I have:1SG today such:PL:PRT follies:PRT do:PRT that ãā m .hh mai tea mis mul vīga on @ I:NEG know what I:ADS problem is 'No, I don't know whether you can put up with me today. I have done so stupid things today. I don't know what's wrong with me.'
In these cases, the verbs are used within full clauses and behave grammatically as predicates. However, the same combinations of *ma I* + verbs may also be used without the complementizers, which shows that the syntactic patterns are leaking. Examples are provided in (5)—(8), where the focused structures are boldfaced.

(5) P: /---/ .hh a kuskile mujale ma teda jätta ei saanud. but anywhere:ALL else:ALL I it:PRT leave:INF NEG can:PPT

(0.2) ma tean ma oin taga seal klassis
I know:1SG I was:1SG it:COM there class:INS

'But I couldn’t leave it [the purse] anywhere else. (0.2) I know that I had it in the classroom.'

(6) A: /---/ .he mm siis e mm (suunad) me panime ära, then directions we put:IMF:1PL ÄRA
ja sellele katte peale, niet ma usun and this:ALL cover:GEN on so I believe:1SG
see peaks toimima köik.
it must:COND function:SUP all

'Then we adjusted the directions and put on a cover so I believe that it should all function.'

(7) P: no ma arvan ma ühe suure körvitsa hiivan ka ärä, NO I think:1SG I one:GEN big:GEN pumpkin:GEN take:1SG too ÄRA
aga mai viitsind tassida,
but I:NEG bother:PPT carry:INF

'I think I’ll take a big pumpkin too but I couldn’t be bothered to carry (it).' 

(8) H: mh mh (1.5) aga: (.) mai tea uuhuh but I:NEG know
bussi- bussireis läheks vist kallimaks. (.) vōi kuidas bus- bus.trip be:COND probably expensive:COMP:TRA or how

'Uuhuh. (1.5) but (.) I dunno, a bus trip would probably be more expensive (.) or?'

It is questionable whether the clauses following the focused items in these examples function as complement clauses. They are not grammatically tied to *ma arvan, ma usun, ma tean,* and *mai tea.* For the same reason, it is not clear that the word combinations itself can be analyzed as main clauses that take a complement. In fact, occasional lack of complementizer was the criterion of choosing patterns for this study. Research into conversation in other languages, such as English and Swedish, have shown that lack of complementer may be a symptom of the fact that personal pronoun + verb patterns do not function as main clauses (Karlsson 2005; Thompson 2002), or that their syntactic status is indeterminate between main clause and parenthetical (Longman Grammar of Spoken and Written English 1999 : 197, cf. 1076—1077; Kaltenböck 2005 : 43—45; Dehé, Wichmann 2010). In Estonian, word combinations such as *ma ütlen* ‘I’m saying’ and *ma räägin* ‘I’m talking’ have been argued to function as a modal frame and not reporting clauses (Hennoste 2004). In the sections below we will look closer into the emergence of the above four word combinations as
different kinds of entities in interaction. They are not all used in exactly the same way and there are considerable differences in their frequency as well as positions in the turn.

The study looks systematically at all the epistemic verbs that displayed syntactic leaking in the corpora. Epistemic words express the speaker’s commitment to what she is saying, particularly the certainty of her knowledge state. They reflect the speaker’s judgment of, or degree of confidence in the knowledge upon which a proposition is based. Depending on the speaker’s claimed certainty of knowledge, the items studied here can be arranged along a continuum from more to less certain.

\[
\begin{array}{cccc}
\text{ma tean} & \text{ma usun} & \text{ma arvan} & \text{ma ei tea} \\
'\text{I know'} & '\text{I believe'} & '\text{I think'} & '\text{I don’t know'} \\
\text{certainty of knowledge} & \rightarrow & \rightarrow & \rightarrow & \text{lack of knowledge}
\end{array}
\]

The items will be dealt with in this very order, focusing on their syntactic position and prosody of production.

**Expressing certainty, ma tean ‘I know’**

There were altogether 143 cases in the corpus where the words \textit{m(in)a}\textsuperscript{1} ‘I’ and \textit{tean} ‘know:\textsuperscript{1SG}’ occurred in the same clause. Only in five cases the combination \textit{ma tean} emerges as a potentially non-clausal unit. In example (5) above we saw that it can be used without a complementizer even though it is attached to another clause that could in principle function as a complement. In that case, \textit{ma tean} was placed before the clause that it commented on. With it the speaker underlined she is sure that she had the purse in the classroom. In addition to this pre-positioned usage, \textit{ma tean} can be used internally in an ongoing clause. In example (9) it is used after the predicate \textit{saatis} ‘sent’ and before the object \textit{messidzi} ‘message’. The item \textit{ma tean} cannot be translated idiomatically in this position in English and therefore it is rendered in Estonian even in the third line.

(9) K: \textit{aga sulle saatis ma tean messidzi keegi Beatrix.}  
\text{but you:SG:ALL sent:3SG I know:1SG message:GEN somebody NAME Beatrix.}  
‘But you got \textit{ma tean} a message from somebody called Beatrix.’

\textit{Ma tean} can also be added after the clause it comments has come to an end, to underline the certainty of the claim. In example (10) it occurs in a strong agreement and co-occurs with another epistemic device \textit{nagu-nii} ‘of course, anyway’.

(10) H: \textit{hh aa, no siis ei saa ega ma ikkagi ei saa nIGINII oh NO then NEG can EGA I still NEG can anyway ilma sinuta seda tapeeti osta without you:ABE this:PRT wallpaper:PRT buy:INF}

\textsuperscript{1}There is a long and a short version of the pronoun, the longer one is less frequent and used to achieve prominence.
'Oh, then (I) can’t- I cannot buy the wallpaper without you anyway and afterwards you won’t be satisfied anyway, right?'

Even though the clause-internal and turn-final positions of *ma tean* are relatively rare, it is clear that the syntactic patterns have leaked to the extent that the verb *tean* does not necessarily take two arguments any more. This is also the reason why calling items such as this comment clauses is problematic — they are not really clauses but the word combination seems to have a different syntactic role.

There is no complement clause in examples (9) and (10), because there is no complementizer, a complement cannot occur before the main clause (without a correlate), and a complement clause cannot be split to two and surround the main clause. Instead, *ma tean* is used as an item that is to some extent mobile within the clause, allowing for variable positioning. As *ma tean* expresses speaker certainty, it is functionally replaceable with an epistemic modal adverb. This is a crucial factor to consider in languages with free word order, such as Estonian. A lot of argumentation on parentheticals vs. pragmatic markers vs. adverbs is based on the English language with strict word order (for an excellent overview, see Brinton 2008: 1—18). Thus, one crucial feature of pragmatic markers and parentheticals has been claimed to be that they are movable while sentence adverbials are not. In Estonian, sentence adverbials are also movable. Furthermore, both adverbials and items such as *ma tean* can occur in identical positions clause-internally, which suggests that the latter is indeed functionally identical with an adverb. They both have a sentential/clausal scope and indicate speaker attitude. It seems that in Estonian, at least, there are more reasons than in English to consider *ma tean* an adverb, in case it is used as shown in example (9). Furthermore, at least in the case of English, Dehé (2009) argues that the prosodic integration of comment clauses cannot be explained in syntactic accounts which do not allow for a syntactic relation between parenthetical and host. Parentheticals are part of the emerging syntactic structure and should be accounted for as regular parts of it.

The sound file of example (10) is unfortunately not available but in example (9) *ma tean* is produced as a regular part of the utterance in the sense that it is not marked by increased speed and lowered pitch and volume, as has often been claimed to be characteristic of English parenthetical comment clauses (Quirk, Greenbaum, Leech, Svartvik 1985: 1112, 1113). There is no corresponding research on Estonian parentheticals and most probably there would be crucial differences between the two languages, especially in regard to pitch movement. However, general functional claims based on English data, such as that prosodic prominence and separation go together with semantic transparency, at least in internal syntactic positions (Dehé, Wichmann 2010), should also be checked on other languages. According to this view, prosodic integration and deaccentuation accompany semantic bleaching, resulting in the more discourse-based and interpersonal meaning of
the items. If that is the case, the Estonian *ma tean* has not started to bleach semantically, as both words carry a certain amount of stress, the item is not produced lower or quicker than other parts of the utterance, as shown in figure (1).

The fact that the item is not deaccentuated or completely integrated supports the argument that *ma tean* plays a regular role in the syntactic structure. It functions as a sentence adverbial that epistemically qualifies the claim that is being conveyed, expressing certainty.

*Figure 1*

![Figure 1](image)

Expressing less-than-certainty, *ma usun* 'I believe'

The combination of *m(in)a* 'I' and *usun* 'believe' is even less frequent in the corpora, occurring 54 times. Only four cases are used without the complementizer and the item is always pre-positioned in regard to the clause that it expresses less-than-certainty about. In example (11) a pastor at a church answers a question by one of his congregation members concerning an announcement of a Christmas show. In his answer the pastor expresses his belief that the people will show up.

(11) K: *ütlesin, ja kolmapäeval ka, niet ee* say:IMF:1SG and Wednesday:ADS too.so.that 'I did and (I said it) on Wednesday too, so'

E: *mhmh=
'Uhuh'*
The above two items *ma tean* and *ma usun* both express an epistemic stance toward what is being said. With *ma usun* the speaker quite literally expresses a mere belief and is thus less than certain about the claim. The items can display epistemic information by constituting a clause with a complement but they do not always display the syntactic properties of a main clause. They may preface, or be inserted into, an ongoing clause. An example of an inserted *ma usun* is presented in (12). The sound file is not available.

(12) H: *hh et ühesõnaga niisugust rahulikku puhkust*, (1.0)
that so this.kind:PRT peaceful:PRT vacation:PRT
*ma usun* nagu ta lootis, (1.0) ta ei: ee taju seal.
I believe:1SG as she hoped:3SG she NEG experience there
'So there she won't experience the kind of peaceful vacation *ma usun*
that she hoped for.'
However, the patterns described above for ma tean and ma usun are peripheral in their overall usage. We will now turn to the two other items where similar patterns are more frequent and where the prosody is accordingly different.

Expressing some uncertainty, ma arvan 'I think'

The word combination ma arvan 'I think (have the opinion)' is generally quite frequent in conversational Estonian (227 cases in the corpus). In addition to literal usage, there are 25 cases where ma arvan is used in varying syntactic positions that cannot be predicted from its subject + predicate structure, or where the syntactic patterns seem to be leaking. In example (7) above the complementizer et 'that' seems to be simply left out. The speaker expresses some uncertainty about whether she will indeed take the pumpkin. The word combination ma arvan seems to project an object or object complement clause but the upcoming spate of talk does not display any features of a complement clause (i.e. a complementizer). Ma arvan thus functions as an epistemic certainty marker in relation to the upcoming clause. In the English language, Thompson and Mulac (1991a: 244—245) argue that the statistically significant lack of (1991a: 244—245) argue that the statistically significant lack of that with I think and I guess in conversation is related to their epistemic meaning. They call these items epistemic parentheticals. Also Estonian comprehensive grammar treats items such as ma tean and ma arvan as parenthetical items, without which the sentence would still be well-formed (Erelt, Kasik, Metslang, Rajandi, Ross, Saari, Tael, Vare 1993: 103). Thompson (2002) has later suggested that they could be analyzed as epistemic phrases combined with a clause, instead of seeing the structure as a combination of a main clause and a subordinate complement clause. Interestingly, there seems to be a cross-linguistic tendency that the syntactic patterns of epistemic verbs are leaking and that they emerge as parts of epistemic phrases instead (for the Swedish tycker jag / jag tycker 'I think', see Karlsson 2005). Some researchers take a step further and consider items such as I think, I assume, I don't think so, or I doubt as sentence adverbials (Jackendoff 1972: 95—100). In Estonian, where at least the focused items share syntactic positions and other characteristics with adverbs, there is a good reason for doing so.

In addition to the pre-positioned usage of ma arvan, the corpora include 18 cases of ma arvan in the middle of syntactic and intonation units. Ma arvan can be placed in a variety of positions within a clause. In example (13), it is used after a time adverbial neljaks 'at four (o'clock)' and before the subject ma 'I'. Here, the speaker is informing her interlocutor about the time when she will start going home from her job. In example (14), ma arvan is used after the subject and the predicate ma saan 'I'll get' but before the object nelja 'four'. The speaker is making a guess of the grade she will be granted for her exam. In these cases, the item ma arvan is incorporated into the syntactic units in a new way and we have thus the best reason for analyzing it as an epistemic adverb.

(13) S: ja: - vü e e no v - no igatahes neljaks ma arvan
and NO NO anyway four:TRA I think:1SG
I be:1SG already from.here long.ago go:PPT
'and anyway, at four ma arvan I have been gone for a long time from here already.'

(14) L: ma saan ma arvan nelja vist vä. või kolme. /---/
I get:1SG I think:1SG four:GEN probably VÄ or three:GEN
'I(’ll) get ma arvan a four maybe or a three [the grades]'

Example (14) is produced very low but (13) provides a nice visible contour. In figure (3), it can be seen that ma arvan is produced quickly and without prominences but so is the talk that follows it. Ma arvan is thus prosodically integrated to the ongoing unit, as is (14) where ma arvan is very short and even phonologically reduced. These prosodic features are quite different from what we say with ma tean, which we also saw in the clause-internal position. Still, the item retains its straightforward epistemic semantics. By using it, the speaker indicates that she is uncertain about the claim.

Figure 3

In comparison, we can look at the prosody of the corresponding adverb arvatavasti ‘most probably’ within a clause ‘Jaan arrives most probably on Thursday’ in figure (4). Similarly to example (13), it is produced prosodically at level with the rest of the clause, with the same pace and height, but not carrying the main prominence in the clause. Thus, even prosodically ma arvan functions as an adverb.
In addition to the pre-positioned and inserted usage, there are 17 cases in the corpora where *ma arvan* is used after the clause it is commenting. The turn-final position is the last appropriate places for stance-taking in regard to what was said but definitely not a prototypic position for a pronoun and a transitive verb. This supports the argument that *ma arvan* functions as an adverb rather than as a clause. An example is presented in (15). The telemarketer is asking a child when his parents will be at home. The child answers *õhtupoole* ‘later in the evening’ and adds *ma arvan* as a hedge. There is a complex transition relevance place (as described in Ford & Thompson 1996: 153–157) after *õhtupoole*, involving syntactic, prosodic and pragmatic completion. *Ma arvan* is produced incrementally as a post-completion.


‘Oh and when are they coming? (.) (you) don’t know’

K: n *õhtupoole. ma arvan.*

late**r in the evening I** **think:**1SG

‘Later in the evening, I think.’

The item *ma arvan* is recurrently used as an epistemic adverb in spoken Estonian and is thus comparable to the frequent usage of the English *I think* and *I guess* as epistemic markers (Aijmer 1996; Kärkkäinen 2003; Thompson, Mulac 1991b). *Ma arvan* is completely mobile, occurring in a variety of positions in relation to the clause it comments on. In contrast,
"ma usun" and "ma tean" primarily preceded the clauses they comment on, displaying the pattern that would be expected in case the upcoming clause was indeed a complement. "Ma arvan" was also relatively more frequent in functions that are not analyzable as subject + predicate. Entire 20% of its occurrence was more adverb-like, while in case of "ma tean" and "ma usun" the adverb-like occurrence constituted merely 3.5% and 7.4% respectively. Thus, as far as we can rely on the frequency effects in the current corpus, "ma arvan" seems to stand out more clearly as an adverb. It expresses epistemic stance towards the preceding, following, or ongoing claim, functioning syntactically as an adverbial. "Ma tean" and "ma usun" display a similar syntactic potential but are generally less frequent and also less frequent in the stance-taking function.

When it comes to the semantic development of first person epistemic parentheticals, Traugott (1995) notes that the subject may lose referential (objective) properties, and become simply the starting point of a perspective. Thus, a following grammaticalization cline is proposed: act of cognition > mode of knowing (evidential) > certainty epistemic (Brinton 1996: 243). This path of ongoing development could also be suggested for at least "ma arvan" in Estonian. However, "ma arvan" is not only used to mark a degree of epistemic uncertainty or guess but also to indicate that what is expressed is a personal opinion. Even though all the items in this study are originally subjective claims, "ma arvan" can furthermore express the social interpersonal stance that the speaker takes in regard to the claim it is attached to. In these cases it is translatable as 'in my opinion'. Example (16) shows an instance where the speaker is giving advice and her "ma arvan" does not mark the advice as a guess about a state of affairs (comp. examples (13—15)) but as a personal standpoint, which is uncertain in the sense that it is not an objective truth. Thus, clear subjectification and some degree of semantic bleaching can be observed in this example. The item functions as a mitigator for the directness of advice, orienting to the interpersonal need of not imposing on others.

16) V: *aga süis peate ikka varem olema Tallinas* *ma arvan.*
    but then must:2PL still earlier be:SUP NAME:INS I think:1SG
    'But then you have to be in Tallinn earlier, I think.'

The sound file for example (16) is unavailable but in the case of (15) "ma arvan" is prosodically separated from, and only marginally less stressed than, preceding talk. The amount of prosodic prominence on "ma arvan" varies depending on its position in the utterance. When preceding or following the commented clause, it can be produced with a separate contour and some prominence but in the middle of an ongoing syntactic unit it is integrated, as are other adverbs. Prosodic integration, however, does not necessarily imply semantic bleaching. Most of the time "ma arvan" still expresses epistemic stance towards what is being conveyed, and only in rare cases can it be analyzed as a mitigator functioning within the interpersonal domain. In summary, there are syntactic, semantic and prosodic reasons for sometimes considering "ma arvan" as a sentence adverbial in Estonian conversation. Similarly to adverbs, it can be used at the beginning of a clause, in the middle of the clause, or be added to the turn after the turn construction unit has come to an end.
Expressing uncertainty, *mai tea* 'I don’t know'

In many languages, the phrase meaning approximately 'I don’t know' displays routinized usage patterns in which it does not occur in its literal meaning and does not function as an independent clause. For example, *I dunno* in English can be used as a hedge, carrying a more subjective meaning and fulfilling face-saving functions (Scheibman 2000; Tsui 1991). In Estonian, the corresponding knowledge denial is *maitea* 'I NEG know', which is an extremely frequent collocation in the spoken usage — in 791 cases the words occurred in the same clause in the corpora. The negation word is regularly assimilated with the pronoun in Estonian, resulting in *mai* but in a lot of cases all the three words sound more like one *maitea*, with the single word stress on either syllable, but most often on *tea*. However, the item *mai tea* is used in a number of different ways, such as for list termination, approximation, and achieving a disjunction (Keevallik 2003: 78–100). Most of them are irrelevant for the current argumentation. Here the focus is on instances of *mai tea* that do not constitute a turn on their own. They modify surrounding talk but are not formally involved in a larger syntactic structure by being followed by a complementizer or any other conjunction or question particle.

Most frequently, *mai tea* precedes the talk it modifies (91 cases). And most frequently, it precedes a whole clause (72 cases) but it can also precede a phrase. The first option was shown in example (8) above and the pre-phrasal position is demonstrated in (17). None of the above items occurred in pre-phrasal position in the data, which suggests that *mai tea* may be the most adverb-like item among them.

(17) H: *vot (.) kuule mis sa arvad et täna ei viiti vä.*

  VOT listen:IMP:2SG what you think:2SG that today NEG bother or

  'Okay. Listen, so you think that you won't bother today?' [to come to a casino]

V: *kuule: jah, (0.8) *maitea omme võib-olla.*

  listen:IMP:2SG yeah I:NEG.know tomorrow maybe

  'Well, yeah. (0.8) *maitea* tomorrow maybe.'

The prosody of the last utterance is shown in figure (5), where it is clear that the *maitea* is quite compressed compared to the following word which carries the main prosodic prominence. It is produced lower and quicker and thereby constitutes the least prominent production of all the items in the current study (among the ones that could be measured).

The scope of *mai tea* in the above two cases is either the upcoming clause (in example 8) or phrase, which constitutes an answer to the question (in example 17). The items are prosodically detached from prior talk and latched to the upcoming talk. As the speaker is in both cases indeed providing information, *mai tea* cannot literally state lack of knowledge. Rather, it expresses uncertainty, i.e. epistemic modality (a similar analysis for *I don’t know* is presented in Tsui 1991: 619–620). The usage displays subjectification and semantic bleaching, similarly to what was shown for *ma arvan* in example (16), in example (16). There are also other markers of uncertainty present in the above examples, *vist* and *võib-olla*, both ‘maybe’. In example (18), *mai tea* is the only marker of uncertainty, hedging a proposal for health care.
Even in this case, *mai tea* is intonationally integrated to the upcoming talk but it is more prominent, starting higher and louder than the item in example (17), and carrying a prosodic prominence of its own. There is thus no straightforward relationship between prosodic prominence and syntactic functions in pre-positions, as in both examples the item expresses uncertainty.

The item can also be inserted in the middle of the ongoing clause and there are altogether 29 instances like that in the current corpora. Similarly to the prepositioned usage, inserted *mai tea* indicates uncertainty about the claim being made. Example (19) comes from a call to an information line and the speaker indicates trouble with formulating the description or name of the place he is looking for. *Mai tea* is used after copula and before the subject.
This clause-internal case is prosodically characterized by integration but not compression. *Mai tea* carries about the same amount of prominence as other prominent syllables in the clause and contributes to the even speech rhythm. Similarly to clause-internal *ma tean* and *ma arvan* above, *mai tea* constitutes a fully-fledged member of the prosodic unit with no separating pauses or drastic pitch resets.

Finally, the uncertainty marker can be added after the clause has been terminated. The speaker has stated something and retrospectively marks his or her epistemic stance toward it (39 cases in the data). This can be done in two ways, either by just adding *mai tea* (15 cases) or more often, by adding *mai tea* together with a conjunction. The two options are demonstrated in examples (20) and (21). The first one is prosodically completely integrated, continuing the already low preceding word. It is also produced with very little energy, as shown in figure (7).
Low prosodic prominence is characteristic of adverbs in clause-final positions. An example of the clause *ma elistaksin siis omme tagasi võibolla* 'I’ll call back tomorrow then maybe' is shown in figure (8) for comparison. The word for 'maybe' is *võibolla*, which is an epistemic adverb. In both cases the last stance-taking item is produced as part of the ongoing unit, latching onto it.

In contrast, the conjunction-prefaced variant *ve mai tea* 'or I dunno' in (21) displays some independence and a separate prosodic contour (demonstrated in figure 9, see especially intensity curve). Still, it is prosodically latched, as *ve mai tea* is initiated at almost the same height where the previous word ends.

(20) L: *okei ma- ma võibolla räägin taga ka präägu maitea.*

‘okay, maybe I’ll talk to her too now, I don’t know.’

(21) P: /---/ *mis täendab see on mingi e tä- täpselt* which mean:3SG it be:3SG some.kind.of precisely

*siuke tunne nagu mingit heina tõmbaks.*

such feeling as some:PRT hay:PRT smoke:COND

*ve mai tea noh*

or I:NEG know NOH

‘which means that it is kind of precisely the same feeling as when you smoke hay or I don’t know.’
The very frequent item *mai tea* thus displays several features of an epistemic adverb. It may be used in different positions in the turn, including clause-internally and pre-phrasally, which is not how a subject + predicate would normally be used. Compared to the three-word combination, the kind of *mai tea* discussed here is phonologically assimilated. In prepositioned or postpositioned usage, its prosodic integration varies but in the middle of the clause, it displays integration but not compression. In addition, the semantics of the adverb-like *mai tea* is different from the main clause *ma ei tea*, which states lack of knowledge. In the adverb-like cases, it merely indicates uncertainty about what has been said, is being said or will be said, and not literally lack of knowledge. It marks the speaker’s stance. There are thus phonological, syntactic, semantic, and prosodic reasons for analyzing *mai tea* as an epistemic adverb, as an item that modifies what is said and that can be freely moved around in the turn and the clause.
Conclusion

The above four combinations of 1st person pronoun + epistemic verb sometimes emerge as adverbs in Estonian conversation. The process whereby something like that can happen has been described as grammaticalization and in many ways the cases display relevant features. We have seen phonological shortening and assimilation, changes in semantics and syntactic positioning and function, as well as subjectification, all of which occur to varying extent with ma tean, ma usun, ma arvan and mai tea. On the other hand, the patterns of usage of these items need not represent language change, but might as well be an illustration of the fact that linguistic categories, word classes and parts of speech included, emerge in usage and cannot be assumed a priori for a linguistic item. Categories have fuzzy boundaries and every instance of usage has to be analyzed taking into consideration its particulars in the current context. Whether we are observing a change or not, frequency of occurrence is crucial for speakers’ understanding of function. The more often a word combination is used similarly to adverbs the more reason there is to reconsider its placement among parts of speech in the language structure. Table (1) summarizes the quantitative data on the occurrence of the above items. It shows that particularly ma arvan and mai tea should deserve serious consideration as adverbs because about one fifth of their overall occurrence is adverb-like.

Table 1
The frequencies of adverbial usage of the four items in different positions in relation to the commented clauses or phrases

<table>
<thead>
<tr>
<th>adverbial usage</th>
<th>pre-positioned</th>
<th>internal</th>
<th>post-positioned</th>
<th>Overall occurrence</th>
<th>% of adverbial usage</th>
</tr>
</thead>
<tbody>
<tr>
<td>ma tean</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>143</td>
<td>3.5%</td>
</tr>
<tr>
<td>ma usun</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>54</td>
<td>7.4%</td>
</tr>
<tr>
<td>ma arvan</td>
<td>11</td>
<td>18</td>
<td>17</td>
<td>227</td>
<td>20.3%</td>
</tr>
<tr>
<td>mai tea</td>
<td>91</td>
<td>29</td>
<td>39</td>
<td>791</td>
<td>20.1%</td>
</tr>
</tbody>
</table>

The clause-internal and post-positioned usage arguably enable most clear-cut distinction from the subject + predicate usage of the same words. Even in regard to this, ma arvan and mai tea stick out as markedly more frequent compared to the other items. Prosodically, ma tean, ma arvan, and mai tea behaved similarly to adverbs in clause-internal and post-positioned usage, while in the latter position there was also an option of more prominence and independent intonation contour. This may indeed be one of the interactional motivations for their usage, as it enables the speaker to achieve an extra emphasis on the epistemic item.

Traditionally, items like this have been called parentheticals or parenthetical expressions in linguistics. These are constructions, words, phrases or sentences, which occupy a syntactically peripheral position in a sentence, are typically separated from their host clause by comma intonation, and which function as a gloss or comment on some aspect of the meaning of that sentence (Rouchota 1998: 97). We have not been able to observe comma intonation in most of the above cases. Rather, the items have been inte-
grated in the larger prosodic units as we would expect to be the case with any syntactically incorporated item. Similar results have been arrived at in the instrumental measurements of some parentheticals in English (Wichmann 2001: 185–186). Reminding of adverbs, the items discussed in this study exhibit lack of propositional content, syntactic moveability, and optionality in the clause. In interactional encounters ma tean and ma usun, but especially ma arvan and mai tea emerge as epistemic adverbs with partly different semantics and prosody as compared to the corresponding main clauses.

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Transcription and translation conventions

- underlining — emphasis; % — glottal sound; ‒ pitch fall at the end of an intonation unit; ; — level pitch at the end of an intonation unit; (0.5) — pause length in tenths of a second; ( ) — micropause; : — lengthening of a sound; ‒ ‒ truncation; = — latching or continuation of the same speaker across intervening lines; ] [ — overlaps; ( ) — unsure transcription; <parenthesis> — marked quality of some kind; @<@ smile @> — smiling quality; @ — laughter syllable; .hh — breathing in, the estimated relative length corresponds to the number of h-s; hh — breathing out; /—/ — some talk has been left out from the same turn.

1, 2, 3 — person; ABE — abessive; ADS — adessive; ALL — allative; COM — comitative; COMP — comparative; COND — conditional; FUT — future; GEN — genitive; ILL — illative; IMF — imperfect; IMS — impersonal; IMP — imperative; INF — infinitive; INS — inessive; NEG — negation (particles ei, ära); PL — plural; PPT — past participle; PRT — partitive; QUES — question word; SG — singular; SUP — supine; TRA — translative.

Other capital letters — an untranslatable particle.

REFERENCES

Dehè, N., Wichmann, A. [forthcoming], Sentence-Initial I think (that) and I believe (that). Prosodic Evidence for Use as Main Clause, Comment Clause and Discourse Marker. — Studies in Language.


В статье описываются четыре комбинации, состоящие из местоимения 1-го лица и эпистемического глагола, которые в современной устной форме эстонского языка используются скорее как наречие. Аргументом здесь служит тот факт, что границы между частями речи расплывчаты и что грамматика проявляется как раз в разговорном общении. Речевые отрывки из естественных бесед показывают, что словосочетания ma tean 'я знаю', ma usun 'я верю', ma arvan 'я думаю' и ma ei te 'я не знаю' можно использовать в разных позициях по отношению к высказыванию, в том числе как перед ним, так и после него. Тем самым указанные сочетания отличаются от главных предложений, которые состоят из подлежащего и сказуемого и связаны с придаточными предложениями. Союз et 'что' в придаточном предложении тоже может быть опущен, что в свою очередь свидетельствует об ослаблении его структуры как придаточного. В отличие от случаев с глаголами, функционирующими как сказуемое, указанные словосочетания часто трактуются как одно целое, внутри высказывания и в потоке речи они много мобильнее. Синтаксически они классифицируются как обстоятельства.

Кроме того, сочетания имеют несколько иное значение, чем их компоненты в сумме. Они не сообщают о знании или незнании говорящего, а дают сказанному вероятностную оценку и демонстрируют субъективное отношение. Значение ma arvan и mai te 'я не знаю' особенно блекнут и становятся субъективнее. Именно эти два сочетания употребляются чаще остальных и доля их употребления в качестве наречий больше. Сочетание mai te может быть и фонетически сильно ассимилированным. Развитие от предложения к наречию можно охарактеризовать как процесс грамматикализации.

При выяснении функции сочетания существенную роль играет просодия. Рассмотренные примеры показывают, что сочетания, как правило, интегрированы в предложения, но они не скаты и тем самым действуют как полноценная часть данной синтаксической единицы, а не парантез. Будучи перед или после комментируемого высказывания они могут быть даже просодически выделены и представлять собой самостоятельную интонационную единицу. В общении это дает возможность говорящему подчеркнуть свою эпистемическую оценку.