

PROSODIC PHRASING OF THE PARENTHETICAL *PALUN* ‘PLEASE’ IN ESTONIAN REQUESTS

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Abstract. This study investigates the prosody of the Estonian parenthetical *palun* ‘please’ in imperative requests. The occurrence of prosodic phrase boundary cues such as pauses, pre-boundary lengthening, and creaky voice as well as pitch characteristics and accentuation are analysed. The analysis is based on 753 utterances, where *palun* appears in three different positions: initial, medial or final. The requests were elicited using context descriptions from 21 female speakers of Estonian.

The results show that *palun* is not phrased as a separate intonation phrase and that its intonation and accentuation vary depending on its position in the host utterance. Utterance-initially, *palun* always receives an intonational pitch accent while utterance-finally it is unaccented. It is concluded that the integrated prosody of *palun* may derive from its discourse marker-like function. Its prosody may be representative of certain other categories of parentheticals with similar functional properties such as comment clauses and reporting verbs, but different from functionally more independent parentheticals that express a proposition or speech act of their own.

Keywords: prosodic phrasing, intonation, accentuation, duration, creaky voice, requests

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1. Introduction

The aim of the study is to examine the prosody of Estonian parentheticals as exemplified by *palun* ‘please’ in imperative requests (see Pajusalu 2014; Pajusalu et al. 2017 on requests in Estonian and cross-linguistically). As the prosody of Estonian parentheticals has so far not been studied, it is of interest to identify the prosodic means that are used for signalling a parenthetical with respect to the rest of the utterance more generally.

Parentheticals are usually described as linguistic entities which are linearly integrated in another linguistic structure but unrelated to the surrounding linguistic material (i.e. the host sentence) in terms of syntactic structure, semantic meaning and/or intonation (Dehé 2014: 2). According to Match Theory (Selkirk 2011; Ishihara & Kalivoda 2022), which is a theory of the relationship between syntax and prosody, parentheticals are syntactically defined as embedded illocutionary clauses that do not contribute to the ‘at issue’ meaning of the larger sentence. An illocutionary clause is the highest, normally unembeddable syntactic projection of the sentence and carries its illocutionary force. In prosody, illocutionary clauses, including parentheticals, are taken to correspond to intonation phrases (Selkirk 2011: 452–453).

While parentheticals are, thus, predicted to be phrased into a separate intonation phrase, there is a considerable variation between, as well as within, different categories of parentheticals. In spoken English, as shown by Dehé (2014), full parenthetical clauses, non-restrictive relative clauses, nominal appositions, and question tags are predominantly phrased separately, while comment clauses (e.g. *I think, I suppose*) and reporting verbs (e.g. *he says*) tend to be prosodically integrated and unaccented. Prosodically integrated sentence-medial parentheticals (comment clauses and reporting verbs) may be either entirely integrated or preceded or followed by an intonation phrase boundary (Dehé 2014).

Comment clauses have been found to have variable and predominantly integrated prosody also by Kaltenböck (2008), Dehé (2009), Dehé & Wichmann (2010), Güneş & Çöltekin (2015), Hedberg & Elouazizi (2015). The integrated prosody of comment clauses has been associated with the following: (1) their functioning as hesitation markers or their discursal, interactional or interpersonal meaning, which causes them to be unaccented and therefore unable to be phrased as separate intonation phrases (Dehé 2009, 2014), while these functions have been associated with their ongoing grammaticalisation or pragmaticalisation into discourse markers (Kaltenböck 2008; Dehé & Wichmann 2010); (2) the fact that (part of) the host utterance is in the semantic scope of their evidential meaning (Dehé 2009, 2014) or epistemic meaning (Güneş & Çöltekin 2015; Hedberg & Elouazizi 2015), causing them to be phrased with the material in their scope; (3) their shortness (e.g. Dehé 2009, 2014); or (4) the avoidance of an intonation phrase boundary in a location where it would otherwise not occur, i.e. in the

middle of a constituent that is expected to be phrased into a single intonation phrase (Dehé 2009). The separate prosody of comment clauses in turn has been associated with their use in transparent propositional meaning, i.e. expressing genuine uncertainty or doubt, and as a side comment expressing the attitude of the speaker (Dehé 2014). The separate vs. integrated phrasing of reporting verbs has likewise been associated with their important independent contribution to the discourse in the former case vs. evidential, interactional or interpersonal function in the latter case (Dehé 2014).

While, for instance, Dehé (2009, 2014) takes comment clauses to be parenthetical illocutionary clauses that can sometimes have a discourse function, reflected in their integrated prosody, another line of research considers comment clauses as established discourse markers resulting from a diachronic process of grammaticalisation, pragmaticalisation, lexicalisation or ‘cooptation’ (see Heine & Kaltenböck 2021 for an overview of the different diachronic accounts). This diachronic development (e.g. from a main clause into a discourse marker) has been associated with a prosodic development from a prosodically integrated to unintegrated or less integrated status (Heine & Kaltenböck 2021). In other words, the two approaches diverge in whether they take (elements functioning as) discourse markers to be prosodically integrated or separate. Studies on other types of discourse markers have found that they are frequently preceded by a pause, but can also occur without pauses, or both with a preceding and a following pause (Lee et al. 2020), suggesting that they tend to be integrated but can sometimes also be separate. At least for certain types of discourse markers (e.g. dialogue markers like *yeah, okay*) it has been shown that their prosody is determined by the local context (Nath & Ward 2022) and is therefore presumably not separate.

Another variable aspect of the prosody of parentheticals is the relationship between their accentuation and prosodic integration/separation. For example, prosodically integrated comment clauses may be either accented or unaccented, and when accented the accent may be either nuclear or prenuclear (Dehé 2009, 2014; Dehé & Wichmann 2010). Likewise, although intonation phrases are assumed to necessarily receive an accent (e.g. Selkirk 2011: 470–472), some studies have found that prosodically separate reporting verbs may be unaccented (Gussenhoven 2004; Astruc-Aguilera 2005; Wells 2006;

Astruc-Aguilera & Nolan 2007). This is, however, not confirmed by Dehé (2014) who suggests that the separate phrasing found in the above-mentioned studies may have been caused by the use of written stimuli where the parenthetical was orthographically separated by commas, whereas Dehé (2014) used spoken data.

Parentheticals that are not phrased separately can still be set off from the rest of the utterance. This can be done by accelerated speech, lowered intensity, or compressed pitch range (Payà 2003; Wichmann & Dehé 2010). Conversely, separately phrased parentheticals can still be “tonally subordinated” to the main utterance either by deaccentuation or lower pitch level and intensity (Astruc-Aguilera & Nolan 2007: 91). Another source of variability in the prosody of parentheticals is their position in the utterance. For instance, Astruc-Aguilera & Nolan (2007: 86) claim that initial parentheticals are pronounced with “a normal intonation” while non-initial ones are tonally subordinated to the intonation of the host utterance.

The Estonian *palun* is most similar to comment clauses and reporting verbs among the above-mentioned categories of parentheticals. It is likewise a finite verb form lacking a complement; it is short; it may be undergoing or have undergone a similar diachronic development into a discourse marker, and it can be seen to have a relationship with and scope over the meaning of the host sentence. That elements like *palun* are semantically related to the host sentence is also suggested by Wichmann (2004: 1544), who characterises the English *please* as “a gesture of courtesy that contextualises the accompanying request as occurring within a known set of rights and obligations. It indicates that this is a licensed, and therefore appropriate, request and that the speaker acknowledges the debt”. The relationship between *palun* and the host utterance could be characterised in similar terms. Likewise, Pajusalu et al. (2017: 477) show that dedicated politeness vocabulary like *palun* is cross-linguistically used in habitual routines and institutionalised requests. Given these properties, *palun* is expected to be predominantly integrated into the prosodic structure of the host. This would also comply best with the Estonian orthography where *palun* constitutes an exception among parentheticals. While in general parentheticals are separated by commas, dashes or parentheses, *palun* needs not be orthographically separated, which could be taken as an indication

to its higher degree of perceived syntactic, semantic and/or prosodic integration as compared to other parentheticals.

At the same time, it is possible that *palun* will occasionally be phrased separately, as has been found for comment clauses and reporting verbs. Variable prosody has also been found for the word *please* in English (Wichmann 2004) where in initial position it is always accented, while in other positions it can be either accented or unaccented, and when accented, it can be preceded by a phrase boundary. It is also possible that when phrased separately *palun* can still be unaccented, as was found for English and Catalan reporting verbs by Astruc-Aguilera & Nolan (2007).

Based on these previous findings on the prosody of parentheticals, especially comment clauses, reporting verbs and the English *please*, we expect the prosody of *palun* to vary depending on its position in the utterance (cf. Astruc-Aguilera & Nolan 2007; Wichmann 2004). Utterance-initial *palun* is expected to be always accented (cf. Astruc-Aguilera & Nolan 2007; Wichmann 2004). As for phrasing, it could be integrated, like the English *please* (cf. Wichmann 2004), or phrased separately like English and Catalan reporting verbs (cf. Astruc-Aguilera & Nolan 2007).

Utterance-medial *palun* is expected to be either accented or unaccented like the English *please* (cf. Wichmann 2004) or medial comment clauses (cf. Dehé 2014). Predictions vary as to whether utterance-medial *palun* is separately phrased or not, and whether separate phrasing correlates with accentuation or not. According to Dehé (2009, 2014), English comment clauses are occasionally separately phrased only when accented; when separated, the preceding and following parts of the host can either constitute separate intonation phrases as well (... IP[...] IP IP[CC]IP IP[...]IP ...) or not (... IP[...] IP[CC]IP [...]IP ...), with the former possibility being more frequent (Dehé 2009, 2014). According to Astruc-Aguilera and Nolan (2007), English and Catalan reporting verbs are always separately phrased and unaccented.

A further possibility pointed out by several studies is that medial parentheticals may be set off asymmetrically by being followed by a stronger boundary than the boundary that precedes them (Selkirk 2005; Güneş & Çöltekin 2015) or, vice versa, by being preceded but not followed by a boundary (Wichmann 2004). According to Dehé (2009,

2014) asymmetric phrasing is also frequent in English comment clauses and reporting verbs.

Utterance-final *palun* is expected to be either accented or unaccented, like the English *please* (Wichmann 2004). Similarly to utterance-medial *palun*, predictions vary as to whether *palun* forms a separate prosodic phrase or not, and whether separate phrasing correlates with accentuation or not.

Yet another factor that could affect the prosody of *palun* is the degree of politeness of the request. Wichmann (2004) notes that in English, a request containing *please* is likely to end with a fall when it is spoken by a more powerful participant, i.e. when the social distance is greater and the power relationship asymmetrical. In a private setting, where power relations are symmetrical and the social distance between participants smaller, it is more likely that a request ends with a final rise.

In order to identify the phrasing of *palun*, various boundary cues will be analysed including the occurrence of pauses, voice quality, pitch and durational characteristics, all of which have been shown to mark the boundaries of intonation phrases in Estonian (Asu et al. 2016, 2017).

2. Materials and method

2.1. Materials

The design of the materials was inspired by the design and results of Pajusalu (2014) and Pajusalu et al. (2017). In these studies, requests were elicited by context descriptions. Cross-linguistically the most frequent form of request was shown to be a mitigated polar question. While imperative sentences were relatively rarely used to formulate requests in Estonian, when they were, they were always accompanied by *palun* (Pajusalu 2014: 251).

The materials for the current study included 12 imperative sentences of four to seven words. Each sentence consisted of an imperative verb in second person singular or plural, one to three complements/adjuncts, and the word *palun* which was placed in three different positions in the utterance: initial, medial or final, creating thereby three versions of each sentence and in total 36 test sentences. Utterance-medial *palun* was the second word of the sentence in three sentences, the third word in seven sentences, and the fourth word in two sentences.

The requests were elicited using similar context descriptions as in Pajusalu (2014) and Pajusalu et al. (2017). The contexts prompted an informant to imagine a situation where she wants the addressee to do something for her. An example of a test sentence with the word *palun* in three different positions and the accompanying context description are illustrated in Table 1. The full list of context descriptions and test sentences can be found at the OSF repository <https://osf.io/cm9xq/>.

Table 1. An example of a test sentence with the word *palun* in three different positions and a context description.

Context description	You are in a bar with your friends. The music is so loud that you can't hear each other. You want the barmaid to turn the music down. You say to the barmaid:				
Test sentence	a)	<i>Palun</i>	<i>pange</i>	<i>muusika</i>	<i>vaiksemaks.</i>
		please	put.IMP.2PL	music.NOM	more.silent.TRA
		'Please turn the music down.'			
Test sentence	b)	<i>Pange</i>	<i>palun</i>	<i>muusika</i>	<i>vaiksemaks.</i>
		put.IMP.2PL	please	music.NOM	more.silent.TRA
		'Turn, please, the music down.'			
Test sentence	c)	<i>Pange</i>	<i>muusika</i>	<i>vaiksemaks</i>	<i>palun.</i>
		put.IMP.2PL	music.NOM	more.silent.TRA	please
		'Turn the music down please.'			

In addition to the 36 test sentences, the materials included 104 fillers that were various interrogative sentences elicited by different context descriptions as information-seeking questions, surprise questions, exclamations and requests.

2.2. Informants

Twenty-one female speakers of Standard Estonian participated in the recordings. They were between 20 and 32 years old. All the informants could speak at least one foreign language but only two informants had lived abroad longer than one year. The informants were remunerated for their participation.

2.3. Procedure

The recordings were carried out in the sound-treated recording booth of the phonetics laboratory of the University of Tartu. A Praat (Boersma & Weenink 2020) demo script was used. The informants were asked to first silently read the context description that appeared on the computer screen and when ready, proceed with the recording to the next slide where the test sentence was displayed for 5 seconds. If needed, the latest test sentence could be re-recorded. Each recording session was preceded by three trial contexts in order to make sure that the participant understood the test procedure. All the materials were presented to each participant in randomised order at one sitting while each test item appeared only once. Depending on the participant a recording took on average 35–40 minutes to complete.

2.4. Analysis

The final dataset comprises a total of 753 utterances. Three utterances from three different speakers had to be discarded due to misreading: two, where *palun* occurred utterance-medially and one, where *palun* was utterance-final. The test utterances were segmented using an ASR forced-aligner (Alumäe, Tilk & Asadullah 2018). The boundaries were manually corrected and the occurrence of creaky voice marked in Praat. The data was annotated for intonational pitch accents and boundary tones following the transcription system for Estonian intonational phonology (Asu 2004).

The pitch analysis was done in Praat, adjusting the analysis floor and ceiling to the individual pitch range using the method described by De Looze & Hirst (2008). The data was extracted from the TextGrid and Pitch objects in R using the package rPraat (Bořil & Skarnitzl 2016). The following durational measures were calculated: the duration of the whole utterance, the duration of the word *palun* and the syllable duration in the word, the duration of the utterance-medial word preceding *palun* in medial position, and the duration of the last word of the utterance which is not *palun*. Pitch measures that were calculated included: utterance mean F0, pitch range between the 5% and 95% quantile within the utterance, F0 at the beginning and end of the utterance, and mean F0 of the word *palun*. Additionally, F0 was logged from 100 equidistant

points within the utterance. Also, the occurrence of intonational pitch accents on the word *palun*, pauses before and after the word *palun*, creaky voice in the word *palun* and in the word preceding *palun* were calculated.

The results were tested in R (R Core Team 2022) using the packages *lme4* (Bates et al. 2015) and *lmerTest* (Kuznetsova, Brockhoff & Christensen 2017). The acoustic measures of duration and F0 were fitted with linear mixed models with condition (levels INI (initial) / MED (medial) / FIN (final)) as fixed effect, and random intercepts and slopes for speaker and token. The durations were log-normalised in order to approach a normal distribution. Post-hoc testing was carried out with Tukey HSD with Holm correction using the *multcomp* package (Hothorn, Bretz & Westfall 2008). The data and the R code can be found at the OSF repository <https://osf.io/cmngxq/>.

3. Results

3.1. Occurrence of pauses

There was just one utterance-internal pause in the whole data. This pause preceded the word *palun* in the utterance-final position.

3.2. Accentuation of *palun*

Figure 1 shows the percentage of utterances where the word *palun* received an intonational pitch accent. It can be seen that in the utterance-initial (INI) position, *palun* was accented in 100% of the cases, whereas in the utterance-medial (MED) position, in 50% of the cases. In the utterance-final (FIN) position, *palun* was accented in just four instances. Three of these are cases of a final rise (L* H%) and one is the only instance when *palun* was preceded by a pause and received an H*+L intonational pitch accent.

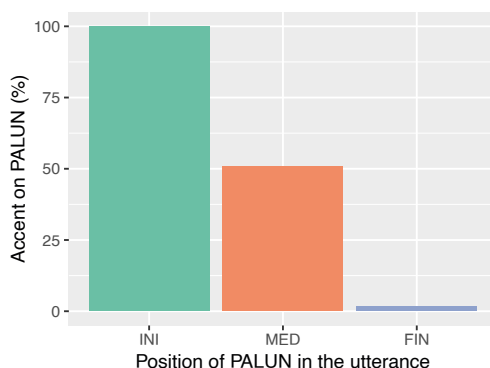


Figure 1. Accentuation of the word *palun* in three different positions of the utterance (initial, medial and final).

Given that *palun* in the utterance-medial position was equally often accented as unaccented, some possible factors contributing to its accentuation were considered such as the position of *palun* in the utterance, accentuation of the preceding word, and the degree of politeness of the request.

The exact position of *palun* had some influence on its accentuation. As the fourth word, *palun* was accented only in 10% of the cases, while as the second and third word it was accented in 42% and 66% of the cases, respectively. However, as the second or fourth word *palun* was always preceded by an accented word, while as the third word it was preceded by an unaccented word.

The accentuation of the preceding word had an effect on the accentuation of utterance-medial *palun*. If the preceding word was accented, *palun* received a pitch accent in 29% of the cases as opposed to 66% of the cases when the preceding word was not accented.

The degree of politeness of the request did not have an influence on the accentuation of *palun*: when the request was in second person plural (more polite), utterance-medial *palun* was accented in 52% of the cases, and when the request was in second person singular (more familiar), it was accented in 49% of the cases.

3.3. Durational properties

Figure 2 displays the duration of the whole utterance which is on average 1664 ms for the utterances where *palun* is in the initial position, 1641 ms for the utterances with *palun* in the medial position, and 1660 ms for the utterances with *palun* in the final position. Thus, the utterance is about 20 ms shorter when *palun* is in the utterance-medial position as compared to the other two positions. The difference is significant ($F(2, 15.327) = 4.025, p < 0.05$).

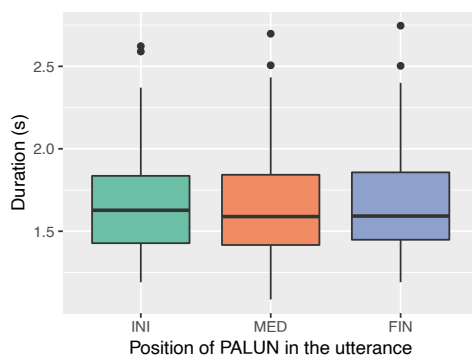


Figure 2. Duration of the whole utterance with *palun* in three different positions of the utterance (initial, medial and final).

As can be seen in Figure 3, there is a significant effect of position on the duration of the word *palun* which is significantly longer in the final position (332 ms) than in the initial (282 ms) or medial (281 ms) position ($F(2, 719.03) = 266.73, p < 0.001$). There is no significant difference in the duration of *palun* between the initial and medial position.

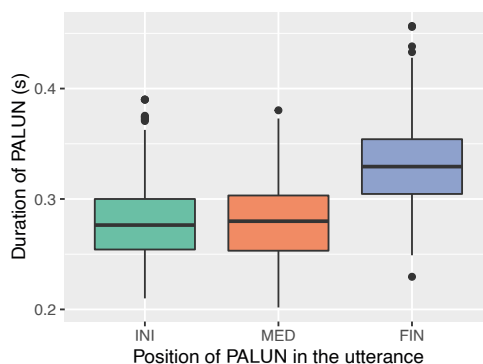


Figure 3. Duration of *palun* in three different positions of the utterance (initial, medial and final).

Figure 4 displays the duration of the first (stressed, S1) and second (unstressed, S2) syllable in the word *palun*. There is a significant effect of position on the duration of the stressed syllable in the word *palun* ($F(2, 15.337) = 11.982, p < 0.001$). S1 is significantly ($p < 0.05$) longer in the utterance-final *palun* (136 ms) as compared to the utterance-initial (121 ms) and utterance-medial *palun* (125 ms), while the difference between the utterance-initial and utterance-medial *palun* is not significant.

There is also a significant effect of position on the duration of the unstressed syllable in the word *palun* ($F(2, 15.078) = 8.558, p < 0.005$). S2 is significantly longer ($p < 0.005$) in the utterance-final *palun* (196 ms) as compared to the utterance-initial (169 ms) and utterance-medial (164 ms) *palun*.

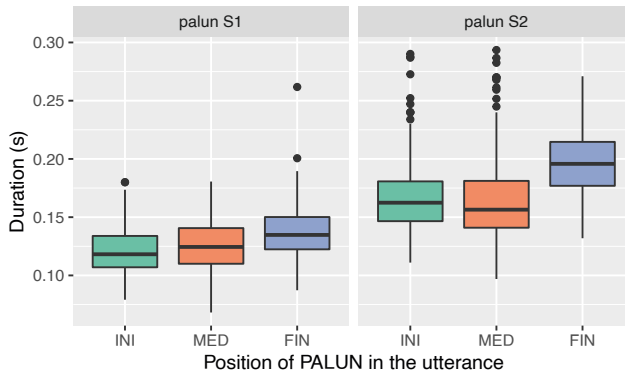


Figure 4. Duration of the stressed (S1) and unstressed (S2) syllable of the word *palun* in three different positions of the utterance (initial, medial and final).

Figure 5 shows the duration of the word preceding the utterance-medial *palun* (left panel), e.g. the word *pange* in the sentence *Pange palun muusika vaiksemaks* ‘Turn, **please**, the music down’, and the word preceding the utterance-final *palun* (right panel), e.g. the word *vaiksemaks* in the sentence *Pange muusika vaiksemaks palun* ‘Turn the music down **please**’, in the three conditions (with initial, medial and final *palun*). There is no effect of the position of *palun* on the duration of the word preceding the utterance-medial *palun*, which is 254 ms when *palun* is utterance-initial, 248 ms when *palun* is utterance-medial, and 258 ms when *palun* is utterance-final.

There is an effect of the position of *palun* on the duration of the word preceding the utterance-final *palun* ($F(2, 12.44) = 12.546, p = 0.001$). The duration is 404 ms in utterances where *palun* is in the initial position, 403 ms in utterances where *palun* is in the medial position and 357 ms in utterances with *palun* in the final position, which means that the word is almost 50 ms shorter when it is not the final word in the utterance.

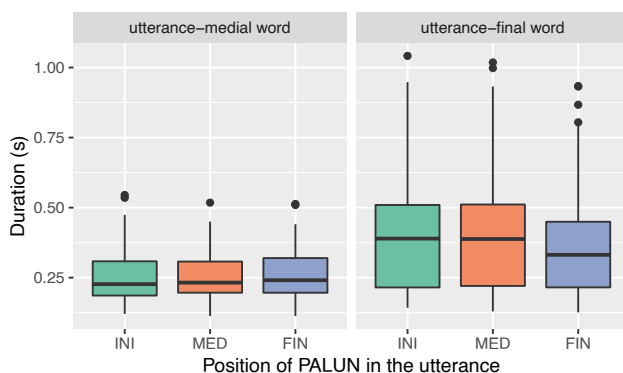


Figure 5. Duration of the word preceding the utterance-medial *palun* (left) and the utterance-final *palun* (right) in the three conditions (initial, medial and final).

3.4. Voice quality

It can be seen from the leftmost panel of Figure 6 that the utterance-final *palun* was produced with a creaky voice in 46% of the cases, while the utterance-initial and utterance-medial *palun* were creaky only in 6% of the cases.

The word preceding the utterance-medial *palun* (e.g. the word *pange* in the sentence *Pange palun muusika vaiksemaks* ‘Turn, **please**, the music down’) was produced with a creaky voice in 13% of the utterances where *palun* was in the initial position, 7% of the utterances where *palun* was in the medial position, and 6% of the utterances where *palun* was in the final position.

The word preceding the utterance-final *palun* (e.g. the word *vaiksemaks* in the sentence *Pange muusika vaiksemaks palun* ‘Turn the music down **please**’) was creaky in 54% of the cases when *palun* was

utterance-initial and in 51% of the cases when *palun* was utterance-medial, but only in 41% of the cases when the word was followed by *palun* in the utterance-final position.

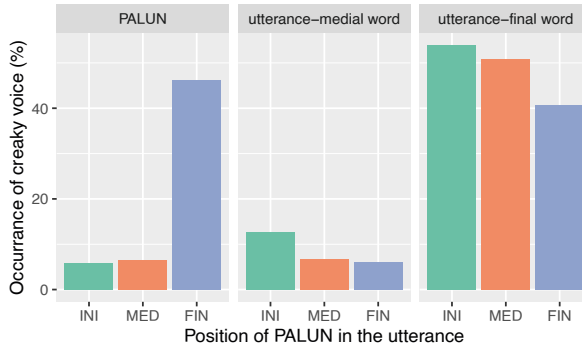


Figure 6. Percentage of the cases where *palun* (left), the word preceding the medial *palun* (middle), and the word preceding the final *palun* (right) is creaky in the three conditions (initial, medial and final).

3.5. Pitch characteristics

There is a significant effect of position on the mean F0 of the whole utterance which is 214 Hz in the utterances with the initial *palun*, 215 Hz in the utterances with the medial *palun* and 212 Hz in the utterances with the final *palun*. The differences are minute but significant between the utterance-medial and utterance-final position ($F(2, 15.555) = 4.086$, $p < 0.05$). There is also a significant effect of position on the mean F0 in the word *palun* – 293 Hz in the utterance-initial, 209 Hz in the utterance-medial, and 185 Hz in the utterance-final position ($F(2, 20.922) = 199.98$, $p < 0.001$). There is, on the other hand, no significant effect of position on the F0 range, utterance-initial or utterance-final F0.

Figure 7 presents the average pitch contours of the utterances with *palun* in three different positions. It can be seen that the pitch contour is broadly similar independent of the position of *palun*. The utterance always starts at a relatively high level and the utterance-initial word (be it *palun* or the imperative form of the verb) always receives an intonational pitch accent. In the case of the utterance-final unaccented *palun* (left-most panel), a slight F0 updrift can be observed.

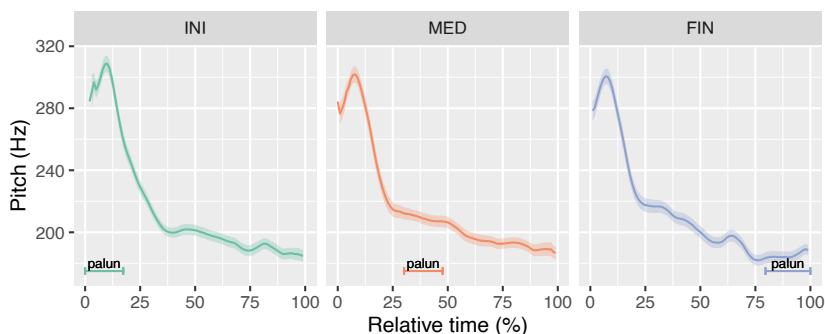


Figure 7. Average pitch contours of the utterances with *palun* in three different positions (initial, medial and final).

4. Discussion

The current study constitutes the first examination of the prosody of parentheticals in Estonian. The analysis focused on *palun* ‘please’ in three different positions of imperative sentences where the occurrence of phonetic cues of prosodic phrasing including pauses, creaky voice and pre-boundary lengthening as well as accentuation and other durational and pitch-related properties were investigated. The results demonstrate that *palun* is prosodically not separated from the host utterance in any of the three positions by any of the boundary cues considered.

The most obvious evidence for *palun* being prosodically integrated is the lack of pauses in its vicinity; just one pause (before an utterance-final *palun*) occurred in the whole dataset. Pre-boundary lengthening was present only in the utterance-final *palun* which was significantly longer than the utterance-initial and utterance-medial *palun* implying that the latter two were not followed by a prosodic boundary. Also, the words before the utterance-medial and utterance-final *palun* did not exhibit pre-boundary lengthening when they were followed by *palun*. In particular, the words that immediately preceded the medial *palun* had the same duration independent of whether they were followed by *palun* or not, which shows that the utterance-medial *palun* was not preceded by a prosodic boundary. The words before the final *palun*, on the other hand, were significantly longer when they were not followed by *palun* (i.e. when they were utterance-final) as compared to when they were

followed by *palun*, confirming that they were followed by a boundary in the utterance-final position, but not when preceding *palun*.

Evidence from voice quality also shows that it was only the utterance-final *palun* that was followed by a phrase boundary as it contained significantly more creaky voice than the utterance-initial and utterance-medial *palun*. Additionally, the word preceding the utterance-medial *palun* was equally often creaky when it was followed by *palun* as when it was not, suggesting that there was no prosodic boundary before the utterance-medial *palun*. The word before the utterance-final *palun* was in turn less often creaky when it was followed by *palun* as compared to when it was utterance-final, pointing to the lack of prosodic boundary before the utterance-final *palun*. Nevertheless, the words preceding the final *palun* were more often creaky than the utterance-medial words even when they were not utterance-final, which could be explained by the fact that they were followed only by post-nuclear material: in the utterances with the final *palun*, the F0 reached the final low already before the word *palun*.

The uniform prosodic structure of the utterances across the three conditions is also supported by their very similar overall duration and mean F0. While the differences between some of the conditions were significant, they were at the same time minute, and are probably not caused by differences in the prosodic structure. The mean pitch of the utterances where *palun* was utterance-final was significantly lower than that of the utterances where *palun* was utterance-medial, which can perhaps be associated with the post-nuclear low pitch of the utterance-final *palun*. In terms of duration, the utterance was significantly shorter when *palun* was in the medial position as compared to the other two positions.

The accentuation of *palun* varied considerably depending on its position. As predicted by previous studies (Wichmann 2004; Astruc-Aguilera & Nolan 2007), the initial *palun* was always accented. It therefore seems that a characteristic F0 contour of Estonian requests starts at a relatively high pitch with an accented initial constituent (utterance-initial *palun* or the verb) followed by the rest of the utterance on a considerably lower level. The pitch contours of the utterances in the three conditions were nearly identical in terms of their initial or final F0 and pitch range. Such an intonation pattern has not been observed, for instance, in Estonian questions or exclamations, and may be specific to requests, although much more work is needed in order to investigate

the intonation of various types of requests in comparison with other speech acts.

The utterance-medial *palun* was equally often accented as unaccented, similarly to what has been found in previous studies for English comment clauses (e.g. Dehé 2014) and the English *please* (Wichmann 2004). Whether the utterance-medial *palun* receives an accent or not may partly depend on the overall accentuation pattern of the utterance as *palun* was twice more often accented when following an unaccented word than following an accented word. The utterance-final *palun* seems to display most clearly a specific character of its own. It was practically always deaccented being realised as a low and flat post-nuclear F₀ contour. Consequently, it behaved differently from the utterance-final *please* in English, which according to Wichmann (2004) was accented in half of the cases. It also differs from prosodically integrated comment clauses and reporting verbs in English which can receive a nuclear accent (Dehé 2009, 2014).

Dehé (2014) observes that integrated unaccented comment clauses and reporting verbs that follow the nuclear accent of their intonation phrase and precede the intonation phrase boundary can have two different prosodic patterns, termed incorporation and encliticisation by Gussenhoven (2004: 291). In the former case, the parenthetical is part of the boundary tone of the intonation phrase, while in the latter (very infrequent) case it follows the boundary tone and the pre-boundary lengthening that signal the end of the intonation phrase. In Estonian, the final post-nuclear *palun* follows the former pattern: it is part of the final low pitch that continues the L tone of the nuclear H*+L accent and there is no pre-boundary lengthening in the preceding word. Depending on the speaker, the utterance-final *palun* may also be realised as a plateau at a somewhat higher level than the speaker's final low, or alternatively as a slight updrift in intonation. In three cases, the final *palun* was realised with a rise to a high boundary tone. We can conclude that the utterance-final *palun* is, therefore, tonally somewhat more distinct and subordinated, although it is integrated into the prosody of the host utterance.

We did not find support for the possibility raised in the literature (e.g., Astruc-Aguilera & Nolan 2007) according to which a parenthetical can be unaccented while still being separately phrased; the only instance when the utterance-final *palun* was preceded by a pause was also the only instance it received an H*+L pitch accent.

In sum, while parentheticals are taken to constitute embedded illocutionary clauses that correspond to intonation phrases in prosody (Selkirk 2011), we found that the parenthetical *palun* was predominantly integrated into the intonation phrase of the host utterance. Several reasons have been proposed in the literature to explain the integrated prosody of a similar type of parenthetical, namely comment clauses. These include their shortness (e.g. Peters 2006; Dehé 2009, 2014), their unaccentedness due to discourse functions (e.g. Dehé 2009, 2014), their semantic scope over the host utterance (Dehé 2009, 2014; Güneş & Çöltekin 2015; Hedberg & Elouazizi 2015), or the avoidance of intonation phrase boundaries in the middle of a constituent normally phrased as a single intonation phrase (Dehé 2009). From these, we can exclude the avoidance of unwarranted intonation phrase boundaries: if this were the reason, we would expect the utterance-initial and -final *palun* to be separately phrased, which is not the case. Shortness as a reason for prosodic integration is also doubtful as questions tags, which are also short (e.g. *isn't he, did she*), have been found to be predominantly phrased separately (e.g. Dehé 2014). It also does not seem to be the case that *palun* is integrated because its function excludes accentuation, as the initial *palun* was always accented and the medial *palun* was accented in half of the cases.

Consequently, the most likely reason for the integrated prosody of *palun* lies in the fact that it is a parenthetical or a discourse marker that is semantically or functionally related to the host utterance and does not express an independent proposition or speech act. Following the characterisation of English *please* by Wichmann (2004), *palun* can be seen to contextualise the request expressed by the host utterance by indicating that it is licensed by a known set of rights and obligations and that the speaker acknowledges the debt. If *palun* is a discourse marker, its integrated prosody would also be explained syntactically, as it would not be an illocutionary clause that is expected to be phrased into a separate intonation phrase. The results of the present study, thus, confirm that parentheticals or parenthetical-like discourse markers may be integrated into the prosody of the host utterance when they are semantically or functionally related to it, although further studies on other types of parentheticals in Estonian are needed in order to establish whether and by which means they are prosodically set off from the host utterance.

5. Conclusion

The present study on the prosodic characteristics of the parenthetical *palun* 'please' in Estonian requests demonstrates that its status does not cause *palun* to be phrased into a separate intonation phrase. Nor does it have a uniform intonation pattern as its accentuation varies depending on the position in the utterance. The utterance-initial *palun* behaves prosodically similarly to the utterance-initial verb; it is always accented and produced with a relatively high pitch while the rest of the utterance is realised on a considerably lower level. The utterance-medial *palun* is equally often accented as unaccented, and its accentuation depends partly on the overall accentuation pattern of the utterance. The utterance-final *palun* is nearly always unaccented. The integrated prosody of *palun* may be related to the fact that it is not functionally independent of the host utterance but rather functions as a discourse marker that serves to contextualise the host utterance. Thus, we can expect the prosody of *palun* to be representative of a larger class of parentheticals with discourse marker-like nature such as comment clauses and reporting verbs.

More generally, the results of this study confirm earlier cross-linguistic findings in that certain types of parentheticals do not have the expected separate prosody. The prosody of other categories of parentheticals needs to be studied in order to ascertain whether parentheticals show variable behaviour in Estonian as well.

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Kokkuvõte. Eva Liina Asu, Heete Sahkai, Pärtel Lippus: Kiilu *palun* prosoodiline fraseerimine eesti palvetes. Käesolev artikkel uurib kiilu *palun* prosoodiat eesti keele käsklausena vormistatud palvetes. Vaadeldakse prosoodilise fraasipiiri tunnuste (pausid, lõpupikenemine ja kärisev häälelaad) esinemist ning põhitooni ja aktsentueerimist. Materjaliks on 753 lausungit, kus *palun* esineb kolmes eri positsioonis: lause alguses, keskel ja lõpus. Materjal salvestati 21 eesti emakeelega naiskõnelejalts katses, kus osalejad pidid palveid esitama nii, nagu nad kontekstikirjelduse põhjal vastavas olukorras seda teeksid.

Tulemused näitavad, et sõna *palun* ei fraseerita eraldi intonatsioonifraasina ja selle intonatsioon ja aktsentueeritus varieeruvad sõltuvalt lausepositsioonist. Lause alguses saab *palun* alati intonatsioonilise tooniaktsendi, aga lause lõpus on see aktsentueerimata. Kokkuvõtvalt võib *palun*'i integreeritud prosoodia tuleneda tema diskursusemarkeri-laadsest funktsioonist. Sellisena võib ta sarnaneda prosoodiliselt ka mõningate teiste sarnaselt funktsioneerivate kiiludega, nagu episteemilised või evidentsiaalsed kiilud (nt *ma arvan*, *ütles ta*), aga erinevana funktsionaalselt iseseisvamatest kiiludest, mis väljendavad eraldiseisvat propositsiooni või kõneakti.

Märksõnad: prosoodiline fraas, intonatsioon, aktsentueeritus, kestus, kärin, palved