On Enets intonation patterns of Enets-Russian bilinguals[1]

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1. Introduction

Forest Enets (iso: enf) is a Samoyedic language spoken on the Taimyr Peninsula. It is a critically endangered language considered nearly extinct. All the remaining ca. 20 speakers are bilingual, speaking both Enets and Russian (Khanina et al. 2018). Despite the fact that Russian is the dominant language for these speakers (Stoynova & Shluinsky 2010: 153), non-standard features in the Russian of Enets-Russian bilinguals are widely attested. The following phenomena have been described: preposition drop (Khomchenkova et al. 2017), non-standard uses of the mediopassive "-sja" (Khomchenkova et al. 2019a), changes of word order in genitive phrases (Naccarato et al. 2019) and problems with gender agreement (Khomchenkova et al. 2018). However, these peculiarities may be merely features of Russian as a second language as they are not exclusive to Enets-Russian bilinguals. The same non-standard features were attested in bilinguals with other L1 languages, such as Nakh-Daghestanian or Mordvin (Daniel et al. 2010; Shagal 2016).

However, the non-standard Russian intonation we see in Enets-Russian bilinguals seems influenced by the Enets language in particular. A very clear example of this is the intonation in polar questions. Consider the intonation contour in Fig.1. This contour is the same as in Enets (Fig. 2), but is unlike the contour found in Russian monolingual speech (Fig. 3). This suggests some Enets interference.

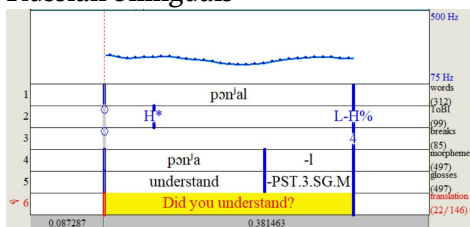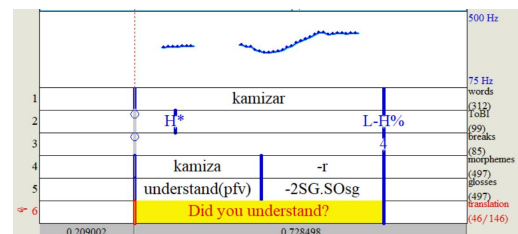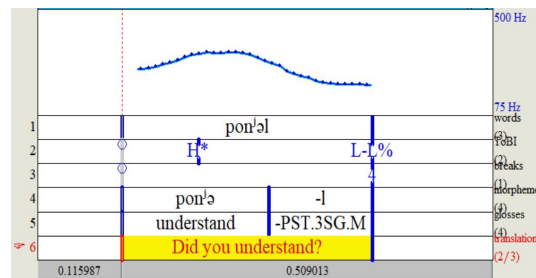**Figure 1**: The intonation contour for a Russian polar question in Enets-Russian bilinguals

Figure 2: The intonation contour for an Enets polar question in Enets-Russian bilinguals

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Figure 3: The intonation contour for a Russian polar question in Russian monolinguals

In this paper, I show how the Russian of Enets-Russian bilinguals exhibits features of Enets intonation; I accomplish this using an autosegmental-metrical framework (AM) to perform a comparative analysis of the pitch contours of both Russian and Enets. My analysis makes it clear that whenever Russian and Enets prosody diverge, an Enets-Russian bilingual will frequently opt for the Enets pattern. Pending a cross-linguistic investigation, this will help us to understand how prosody generally functions in bilinguals.

The paper is organized as follows. In section 2, I outline my data as well as the framework I employed. In section 3, I provide an overview of the basics of Russian intonation. In section 4, I show the results of my pilot study of Enets intonation. In section 5, I describe the influence of Enets intonation on Russian. Finally, in section 6, I draw conclusions.

2. Data and the framework

In order to be able to detect Enets intonation patterns in Russian speech, we must first understand how each system works. There has been some work done on Russian intonation patterns (Bryzgunova 1982; Svetozarova 1998; Odé 2003, 2008; Yanko 2008; Kodzasov 2009, a.o.), however, almost nothing is known about Enets prosody. Therefore, I have conducted a pilot study of the latter.

For my analyses of both Enets and Russian, I make use of an AM model, as it allows for cross-linguistic comparison, as shown in (Jun 2005, 2014). Following Jun, I will consider phrasing, prominence, and tone (pitch accent) as the basic characteristics that constitute prosodic patterns. The rhythm created by prosodic phrases of medium size marked with tones is called macro-rhythm (Jun 2014: 522). Prosody consists of two levels: lexical (tone, stress or lexical pitch accent) and postlexical (intonation). These two levels interact but are mostly independent as "intonation features are not directly predictable from the lexical prosodic features" (Jun 2005: 431). In this study, I mostly focus on the postlexical level. I look at the locus of prosodic prominence, particularly whether it marks a boundary of a prosodical unit (IP, ip, AP, Wd[2]) or else is the head of a prosodical unit bearing logical stress. I also suggest the inventories of prosodical units for both languages, as well as the inventories of their tones and

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[2] IP – intonation phrase (the largest prosodic unit); ip – intermediate phrase; AP – accentual phrase (the smallest prosodic unit larger than a phonological word); Wd – phonological word (Jun 2014).

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rhythmic patterns, i.e. identifying the degree of macro-rhythm (stronger or weaker) in both Enets and Russian speech.

Based on these features, each of the languages can be placed in prosodic typology, which will help to find the conflicts between the two systems and look for its resolution in bilingual speech.

For my linguistic data, I use the Corpus of contact-influenced Russian of Northern Siberia and the Russian Far East[3] (Khomchenkova et al. 2019b) as well as the Enets Oral Corpus (created by Khanina, Shluinsky, Ovsjannikova, Stoynova, Trubetskoy, 2005-2016). For a better comparison, I use a small subcorpus based on the speech of four Enets speakers. Importantly, the same speakers produced both the Russian and Enets speech samples.

The speech fragments are annotated in Praat (Boersma & Weening 2022) using Tones and Break Indices (ToBI) transcription (Pierrehumbert 1980) adapted for Enets as exemplified in Fig 4. The top layer is dedicated to pitch accents, phrase tones and boundary tones. The next is for break-indices, which indicate the division of speech into phrases. The rest of the layers include the morpheme-by-morpheme representation of the phrase, glossing, and English translation.

Figure 4: Tiers of ToBI annotation in Praat
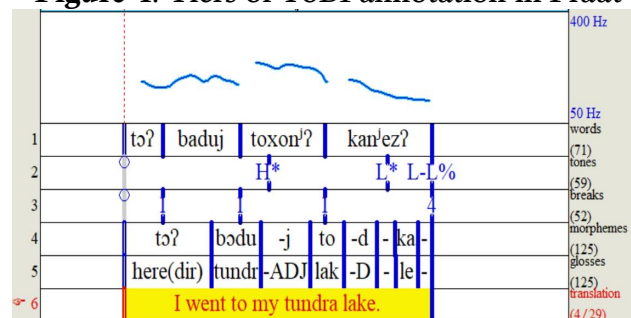
The main tone events on the prominent syllables are marked as either high pitch (H) or low pitch (L), combined with diacritics, e.g. L+H* is a pitch accent with high pitch on the most prominent syllable preceded by a low tone, as shown in (Fig. 4). Typically, L+H* stands for a steep rise of the tone. Prominent syllables in pitch accents are marked with an asterisk (*). In addition to the pitch accents themselves, I also annotate phrase accents (H- or L-) and boundary tones (H% or L%). The former occur between pitch accents and the very edge, and the latter mark the tone on the edge of the phrase (H% or L%). Figures 1-2 serve as a good example of combination of an L- phrase tone and H% boundary tone, where the pitch descends after the H* pitch accent, but then raises at the end.

There are several problems related to the source of the data. First, when working with a corpus of spontaneous speech, it is impossible to control the data. Second, the corpus is not balanced and contains mostly narratives, which can restrict the set of represented intonation patterns. Finally, the quality of the recordings often leads to difficulties in phonetic annotation. The texts of the Enets corpus were collected for documentation purposes, rather than phonetic studies, and the corpus of the non-standard Russian was created from texts that had been collected as a byproduct of the

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[3] web-corpora.net/ruscontact/corpus.html

documentation process (Stoynova & Khomchenkova 2019). Therefore, they contain additional background noises that do not affect any lexical or grammatical content but can make phonetic characteristics less clear. However, based on the data, I nonetheless succeeded in developing a basic understanding of intonation patterns.

3. Russian intonation

As described by Svetozarova (1998), Russian has lexical stress, which is realized acoustically by a combination of length, intensity, and pitch. The stress can be on any syllable, and there is typically only one stressed syllable per word; secondary stress is rare. In addition to lexical stress, Russian has phrasal stress, which is associated with syntax and semantics, as well as the linear position of the target word within the phrase (see Kodzasov 2017 on phrasal stress).

(1) RUSSIAN

a. *to* *ty* *sobira-eš-sja* *dela-t'?*
    what 2SG be.going.to-NPST.2SG-MED do-INF
    'What are you going to do?'

b. *bud-u* *gotovi-t'-sja* *k* *èkzamen-u*
    be.FUT-NPST.1SG prepare-INF-MED to exam-SG.DAT

c. *bud-u* *k* *èkzamen-u* *gotovi-t'-sja*
    be.FUT-NPST.1SG to exam-SG.DAT prepare-INF-MED
    'I'll be preparing for my exam'. (adapted from Kodzasov 2009: 58)

In (1), accentuation in both (1b) and (1c) is natural, independent of the position of the phrase *k èkzamenu*. The nuclear accent (the main stress in the intonational phrase) falls on the focused syntactic phrase, which is the VP. Within the VP, it is the object that takes the nuclear stress (unless there is a narrow focus on some other part of the phrase). Therefore, the most prominent part is the stressed syllable of the object NP (in bold).

    The importance of the linear position is shown in (2), where one of the parts of the focus gets dislocated and has to carry an accent (2b), which need not be the case with the basic word order.

(2) RUSSIAN

a. *oni* *živ-ut* *ne-**plox**-o*
    3PL live-NPST.3PL NEG-bad-ADV

b. *ži**v-ut*** *oni* *ne-**plox**-o*
    live-NPST.3PL 3PL NEG-bad-ADV
    'They don't live badly'. (ibid)

Odé (2003) developed a transcription for Russian called ToRI[4], which was inspired by ToDI[5] (Gussenhoven 2005), which was its turn is inspired by ToBI used for American English. She provides the following classification of tones.

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[4] ToRI – Transcription of Russian Intonation.
[5] ToDI – Transcription of Dutch Intonation.

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L* (or HL*) is used for completeness and neutral finality (see the pitch accent on *bratom* 'brother' in a simple declarative sentence in (3)). L-starred accent followed by H (L*H) functions as an elliptic or imperative question, as well as for enumeration and incompleteness (4). On the other hand, H-starred accents are mostly used for incompleteness (see the pitch accent on *kanikuly* 'holidays in the first ip in (3))'. An H-starred accent can be followed by +H in a closed enumeration, by M in continuation in narratives, and L in polar questions and contrast (see Odé 2022 for more discussion). L* preceded by H is used to emphasize completeness, as well as for wh-questions with narrow focus or an imperative. (3)-(4) are examples of Odé's annotation.

(3) RUSSIAN

%L			H*H	%	%L		H*M		HL*L%
ona	*pri-ed-et*		*na*	*kanikuly*	*toby*	*povida-t'-sja*	*s*	*brat-om*	
3SG	come-NPST.3SG		on	holidays.PL	GOAL	see-INF-MED	with	brotherSG.INS	

'She'll come for the holidays to see her brother'. (adapted from Odé 2008: 438)

(4) RUSSIAN

%M	L*H	%
a	*ve er-*	*om?*
and	evening-SG.INS	

'And in the evening?'   (adapted from Odé 2022)

Even though this system operates with complex contours, and there is no one-to-one correspondence between a tone and a specific function, which would be handy for typological comparison, I will still use this inventory of tones. I rewrite the ToRI tones using more widely used ToBI conventions. The latter uses phrasal tones in addition to pitch accents and boundary tones. For instance, a boundary tone has to be preceded by a phrase tone even if the phrase tone is the same as the pitch accent (compare (3) and (5)). A complex tone L*H at the edge can be represented as a combination of a pitch accent L*, a phrase accent H-, and a boundary tone H%. All complex pitch accents in ToBI contain a "+" to indicate the concatenation of two tones. I also do not use M tones, nor indicate the left edge of an ip. I mark boundary tones only on the right edge. The correspondences are represented in Table 1.

Table 1: ToRI-ToBI tones correspondences:

| ToRI	ToBI
L* L	L* L-
H*H	H* H-
H*M	H* L- / H*
H*L	H*+L / H* L-
HL*	H+L*
L*H	L* H-

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After the above modification, the inventory of the possible pitch accents themselves is simpler (just four tones: L*, H*, H*+L, H+L*), and the variation is achieved by their combination with phrasal (and boundary) tones. Odé's example (3) with my modified annotation is in (5).

(5) RUSSIAN

			H* H-			H*		H+L* L-L%
ona	*pri-ed-et*	*na*	*kanikuly*	*toby*	*povida-t'-sja*	*s*	*brat-om*
3SG	come-NPST.3SG	on	holidays.PL	GOAL	see-INF-MED	with	brotherSG.INS

'She'll come for the holidays to see her brother'. (adapted from Odé 2008: 438)

In Russian, there are usually around 1-2 pitch accents per ip (indicated by a phrase tone at the right edge), and non-final pitch accents in declaratives are mostly H* (see the pitch accents on *kanikuly* 'holidays' and *povidatjsja* 'see'), see e.g. (5). Another important characteristic of Russian pitch accents that will be relevant for the comparison with Enets is that the peak of the tone is aligned with the stressed syllable. After reaching the highest point, the fall starts in the same syllable, as shown in Fig. 5, where the stressed syllable is *t'e*. Delayed peaks are not characteristic for Russian neutral speech (Makarova 1999; Rathcke 2006)[6], where the highest pitch is achieved after the otherwise most prominent syllable.´

Figure 5: No delayed peaks in Russian
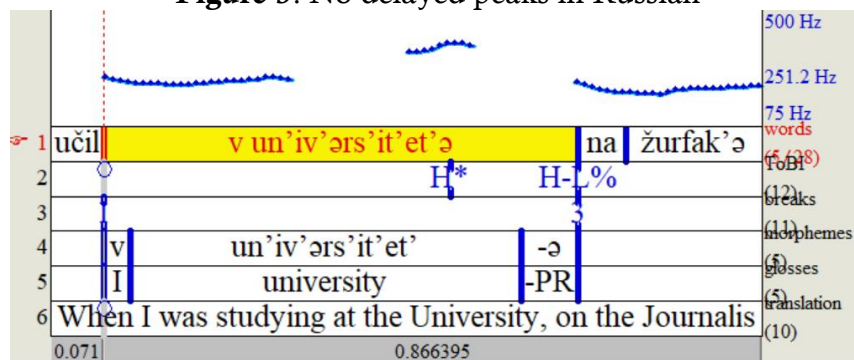
Thus, determining the place of Russian in prosodic typology, we can say that Russian has prosodic units above the word level smaller than IP (ip) and marks the prominence on the head of the prosodical unit.

4. Enets intonation

As I already mentioned, there has been almost no work done on Enets prosody so far. In this section, I describe my pilot study of Enets phrasal prosody. According to Khanina (2018: 433), prosodic prominence of the word level in Enets is achieved by length, intensity, and pitch; and the most prominent syllable is the first one. She also

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[6] Delayed peaks can sometimes occur in modal speech (Bryzgunova 1982: 102). I am grateful to the anonymous reviewer for pointing this out to me.

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points out that there is no lexical stress in Enets that would be easily identifiable. Earlier, Tereschenko (1966: 441) claimed that in addition to the first syllable, other odd syllables get stressed in Enets. This observation will become relevant when I describe phrasal prosody.

As lexical and postlexical levels are independent, I will look at postlexical prominence in Enets and try to determine the intonationally relevant prosodical units of Enets. I will determine the number of prosodically prominent words per IP and the set of tones used.

4.1. Quantity of prominent words per IP
First of all, it is important to determine the loci of prominence in Enets speech. Interestingly, every odd word bears a pitch accent[7], starting with the first word (6). This suggests that in Enets, the prosodical units above the word level are very small, just above the word level, APs.

(6)   ENETS
H*   H   *L-   H*   H*   L-L%
ent eu-   *d ez*   ***to-ubi -Ø,***   ***nadu-saj***   *ul* ***to-za-Ø***
people-PL   ADALL   come(PFV)-HAB-3SG   antler-COM   very come(PFV)-FUT-3SG
'It goes towards people, it goes right with its antlers'. (Enets corpus)

The rhythm is more important for the placement of accents as opposed to information structure or emphasis. Consider (7), where the logically contrastive word is not prosodically prominent. On the contrary, *tun ir* 'gun', which is the repeated part, bears the pitch accent, while the existential verb and its negation, which are in contrast, remain unstressed. This is exactly the opposite to the strategy used in Russian. In Russian, logical emphasis leads to prosodic prominence, as in (8).

(7) ENETS
H*   H-L%   H*   H-L%
tun i-r   *t ne-Ø,*   ***tun i-r***   *da o-Ø*
gun-NOM.SG.2SG   EX(IPFV)-3SG.S   gun-NOM.SG.2SG   NEG.EX-3SG.S
'Do you have a gun or do you not have a gun?' (ibid)

(8) RUSSIAN
                              L+H*   L-   !H*[8]   L-L%
u   tebja   ***estj***   *ruſſje*   *ili* ***net***   *ruſſja?*
AD   2SG.GEN   EX   gun.NOM or   NEG.EX   gun.GEN
'Do you have a gun or do you not have a gun?' (PPS_sentence2)

On the other hand, this aligns with the word level prosody in Enets, which is based on the rhythm, rather than logical prominence. As I mentioned earlier, every odd syllable in an Enets word is prominent (Tereschenko 1966: 441). I predict that every odd word

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[7]   In this paper, prominent words appear in bold.
[8]   ! marks a downstepped tone, which is a natural decrease of the height of the pitch towards the end of a phrase.

in an IP is prominent. There are exceptions to this highly rhythm-oriented process of accentuation, which make it harder to find examples that support my prediction in the corpus. For instance, certain high-frequency words, such as some discourse markers, (*t z* 'so' in (9)) and some pronouns (*buxuru* 'nothing' in (10)) in Enets seem to be unable to bear an accent.

(9) ENETS
<H*⁹   <!H*   !H* L-L%
 bu *d od i- on*   *t z*   ***ent e-d***   *n i-zu*   ***ko-ra-***
what time-LOC.SG   so   people-DAT.SG   NEG-3PL.M.CONT   find-CAUS2-CONN
'At some time, they were found by a person'. (Enets corpus)

(10) ENETS
            L+<H*   H-L%   H+!H L-H%
 bu-xuru   ***b zi***   *d a o-Ø,*   *bu-xuru*   ***d a o-Ø***
what-EVEN   intestine   NEG.EX-3SG.S   what-EVEN   NEG.EX-3SG.S
'[It turned out that] there was not a single intestine, there was nothing'. (ibid)

Now, placing Enets in Jun's typology, we can say that it is a language that has prosodical units slightly larger than a word (APs), and prosodical prominence marking their left edges.

4.2. Set of tones in Enets and a case study of accentuation in NP
Typically, all pitch accents in an Enets IP are H* (or its variations with a delayed peak or downstep) (11). H* tones can be preceded with L+ (e.g. in a topic NP: see 'his two children' in (12)). Notice that phrase accents and boundary tones in declarative sentences are still L-L%.

(11) ENETS

<H*   <H*   <!H* L-L%
m re   *kasa*   ***kezer***   *k ra-ru*   ***kad-ta- o-a-Ø***
hunter   man   wild.reindeer   bull-RESTR   take.away-FUT-DUR-3SG.S
'The hunter obtains only wild bulls'. (ibid)

(12) ENETS
            L+H*   H-   L+H* L-L%
a   ***ize***   *n e-xu-za*   *an*   ***d uze-xi***
and two   child-DU-NOM.PL.3SG   and   small-3DU.S
'And his two children are still small'. (ibid)

H* accents in Enets have an interesting feature: they have delayed peaks, which means that the highest pitch of a tonal accent is not aligned with the most prominent syllable, but rather falls on the following one (Fig. 6). The most prominent syllable is the first

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⁹ < marks a delayed peak, which is discussed in section 4.2.

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syllable of the word, e.g. *kezeru* 'wild reindeer'. However, the highest pitch is achieved later – on the last syllable of the word.

Figure 6: Delayed peak
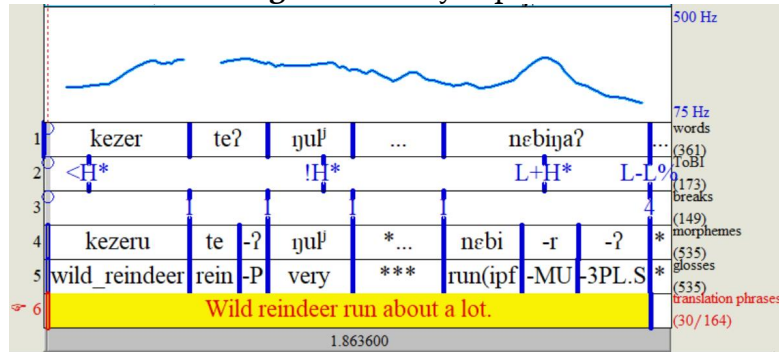
Even though both Russian and Enets use H* to mark pitch accents, they differ in this parameter.

Looking at entire sentences may be overwhelming, especially in spontaneous speech, as these are very large units and likely to contain confounding factors. In this section, I explore accentuation within smaller syntactic units – NPs.

In Enets NPs, the modifiers, rather than the heads, bear accents. Consider (13), where it is the adjective *s jza* 'good' that is the most prominent within the NP 'good knife', not the head noun *k ru* 'knife' itself. The NP 'his two children' in (12) is also a good example of this. The contrast is on the entire NP, but only the numeral is accented. This is logical as modifiers precede the head in Enets (Shluinsky 2020: 41), and if the accentuation starts from the first syllable rhythmically, then in presence of a modifier, it is the modifier that will be the first word.

(13) ENETS
<H*   L-   <!H*   L-L%
s jza   k ru   tara-Ø   *lse*   *ka a-ra- o-*
good knife necessary(IPFV)-3SG.S   such   come.down(PFV)-CAUS2-DUR-CVB
'A good knife is necessary to cut this off'. (Enets corpus)

5. Enets intonation in Russian speech

Before I start highlighting Enets features in the Russian speech of bilinguals, let me summarize the typologically relevant differences between the two languages. In Russian, pitch accents are determined based on Syntactic or Information structure. The size of prosodical units that can bear these accents is also different; in Russian, prosodical units within an IP are rather large (ip), and there are few accents per ip (and therefore, per IP as well), while in Enets prosodical units are small (AP), and every odd word is prominent unless it has lexical restrictions (e.g. discourse markers). This difference in the accentuation strategy can be clearly seen in NPs. In Russian,

prenominal modifiers do not bear an accent in neutral contexts. In Enets, on the other hand, it is prenominal modifiers that bear an accent, due to their position as being first in the prosodic unit. The inventory of tones is also different in Russian and Enets. The latter only uses H* tones in declaratives while the most common accent in the former is L*. Finally, even H* tones are realized differently due to delayed peaks in Enets, which are absent in (non-modal) Russian.

We can expect that, in Russian with Enets intonation, every odd word will be prominent, ignoring contrastivity and logical emphasis. In particular, we expect accents on prenominal modifiers. We also expect prevalence of H* accents, including positions in which we would hear L* in monolingual Russian. Now, we will explore the actual data.

As I mentioned in section 4.3, there may be confounding factors present while dealing with IPs. For example, a more thorough annotation of Russian accentuation of phrasal level shows that in spontaneous speech, it is not true that there are only a few accents. In fact, every odd word may carry an accent, similarly to Enets. I have annotated a small sample of sentences from the Oral Corpus "Funny life stories" created by Kibrik and his colleagues (http://spokencorpora.ru/), as well as my own recordings of a monolingual Russian speaker. The speakers are in the same age range as in the studied sample (> 50 years old). The resulting accentuation is shown in (14).

(14) RUSSIAN (MONOLINGUAL)

Predloffi-l-i *napisa-t'* **muzyk-u** *dlja* **telespektaklj-a** / *"Karlik Nos"* \.
offer-PST-PL   write-INF music-SG.ACC for   TV.show-SG.GEN   dwarf nose
'They gave me an offer to compose music for the TV show, "Little Longnose"'.
(PVV_ShortStory)

Due to the possibility of accentuating every odd word in monolingual Russian, it would be misleading to say that this pattern in Enets-Russian bilinguals arises due to the influence of Enets on Russian. This may be a genuine property of colloquial speech. Moreover, due to the difference in the accentuation strategies, it may be a coincidence that the resulting pattern is the same. Given this, I would not rely on any statistics here.

NPs are much smaller units than clauses (the latter correspond to ips or even entire IPs), and it is much easier to detect the differences there. I took all NPs in my Enets and Russian subcorpora of Enets bilinguals, as well as annotated NPs in four texts of Russian monolinguals of the same age.

Almost no Enets NPs contained an accent only on the head noun. Either both a modifier and the head bear an accent, or only a modifier does. On the other hand, an insignificant number of NP in Russian monolingual speech contained an accent on a prenominal modifier. The vast majority of the accents are on the head, although sometimes double accentuation is possible as well. In bilingual speech, even though there is some increase in accentuation of heads, most of the NPs have accents on modifiers. The distribution of the percentages is shown in Table 2.

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Table 2: Distribution of the loci of prominence within NPs:

	Russian (monolingual)	Russian (bilingual)	Enets
head	**68%** (34/50)	24% (12/50)	4% (2/50)
both	24% (12/50)	36% (18/50)	14% (7/50)
modifier	8% (4/50)	**40%** (20/50)	**82%** (41/50)

I mentioned that some discourse markers and pronouns do not bear phrasal accents in Enets. The demonstrative pronouns *t ike* 'this' and *ke* 'this' (and other words derived from it) do not carry pitch accent in Enets[10]. However, the nature of this phenomenon is a question for future research.

In addition to a general tendency to stress prenominal modifiers, we find that Enets-Russian bilinguals can ignore contrastivity in their Russian (15).

(15) RUSSIAN (BILINGUAL)
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<H*                                       <!H* L-L%
on       jamal'-sk-om                     okrug-e
3SG      Yamal-ADJ-SG.M.PREP              district-SG.PREP
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'[But not in our district]. He is in **Yamal** district'. (Non-standard Russian corpus)

As predicted, L* tones are almost never used in the Russian speech of Enets-Russian bilinguals. Consider the distribution of H* and L* accents made on a small sample of annotated sentences. In Russian speech, L* constitute 26% of all accents while in Enets they are very rare. In the Russian speech of Enets-Russian bilinguals, the percentage of L* tones is close to Enets.

Table 3: Distribution of H* and L* tones in Russian and Enets:

	Russian (monolingual)	Russian (bilingual)	Enets
Total number of tonal accents	62	63	62
L*	16	5	3
L* in %	26%?	8%	5%

Finally, we find delayed peaks in Russian speech of bilinguals (Fig. 7).

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[10] I excluded all examples containing ǂthisø from the statistics above. All 16 Enets examples were with accent on the head, but I consider this to be a special case.

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Figure 7: Delayed peaks in Russian speech of Enets-Russian bilinguals:
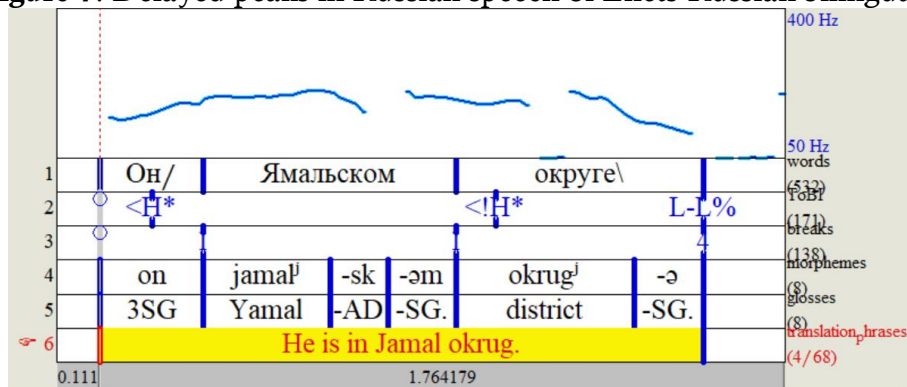
The presence of delayed peaks also contributes to the perceptual differences between monolingual and bilingual Russian intonation.

6. Conclusions

In this paper, I provided the preliminary results of my study of the intonation of Russian speech of Enets-Russian bilinguals. First, I made a pilot study of Enets intonation patterns as Enets prosody has not been studied before. Then, I determined typologically relevant features of Russian and Enets intonation and found the conflict between them. Next, based on a small sample of annotated examples for three subcorpora (Enets, Russian bilinguals, and Russian monolinguals), I showed that Enets-Russian bilinguals tend to use the Enets accentuation strategy instead of the Russian strategy. In particular, they put stress on unfocused prenominal modifiers, tend not to use L* accents, and have delayed peaks, which are hardly ever used by Russian monolinguals. Even though the subcorpora I used are small and there are not yet enough annotated data are for statistical tests, the results are quite clear.

An interesting question then arises: are the patterns found caused by the interference of Enets or else just a common feature of bilingual speech? Some grammatical phenomena listed in the introduction, such as preposition drop or changes in word order, are not specific for Enets-Russian bilinguals.[11] Intonation may or may not be an exception. In order to answer this question, more research has to be done on the intonation of bilinguals with other languages.

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[11]   See also (Polinsky 2018) on common features in Heritage Speakers.

On Enets intonation patterns of Enets-Russian bilinguals

ABBREVIATIONS:

1-3 – person, ACC – accusative, **ADALL** - adallative, **ADJ** – adjective, **ADV** – adverb, **CAUS2** – second causative, **COM** – comitative, **CONN** – connegative, **CVB** – converb, **DAT** – dative, **DU** – dual, **DUR** – durative, **EX** – existential, **FUT** – future tense, **GEN** – genitive, **HAB** – habitual, **INF** – infinitive, **INS** – instrumental, **IPFV** – imperfective, **LOC** – locative, MED – medial voice, NEG – negation, NOM – nominative, NPST – non-past tense, **M** – masculine, **PFV** – perfective, **PL** – plural, **PREP** – prepositional, **PST** – past tense, **RESTR** – restrictive, **S** – subject conjugation, **SG** – singular, **SO** – subject-object conjugation.

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