

Why Regional Prosodic Variation is Worth Studying: An Example from Russian

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1. Introduction

This paper is based on a talk in which I presented a few of the many arguments for the relevance of studying and teaching foreign languages at Norwegian universities; and since the author is a specialist in Russian linguistics, it focusses on Russian in the Scandinavian context. For this reason, most examples are taken from Russian or from Scandinavian languages. In particular, this essay will argue for the value of studying regional prosodic variation in Russian, which is one of the main keys to identifying the regional origin of a speaker. However, most arguments are valid for language studies in general, and could just as well have been exemplified with other languages.

The paper is built up as follows: first, I will give some general arguments for the study and teaching of foreign languages, followed by a gradual narrowing of the focus to consider the relevance of Russian regional prosody and its potential social meanings, with particular reference to the first results of our own studies. Finally, a planned corpus project for Russian regional speech is presented, which will address this neglected area.

2. The importance of studying and teaching foreign languages

Language is an essential part of all research, since it is our most important means of communication. Societies need people with a solid knowledge of foreign languages, as acknowledged in the newly published Parliamentary Report on the Humanities, which maintains that foreign-

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language competence in Norway must be enhanced (Meld. St. 25 (2016–2017), § 6.1).¹ As philologists, we teach our students to read original texts carefully.² Translations are mere approximations of the meaning of the original utterance. Students of foreign languages learn the nuances in meaning of utterances in other languages, as well as the cultural and social context details that are necessary to interpret them. This competence is now more essential than ever.

I would like to add that we teach not only how to *read*, but, ideally, also how to *listen* carefully. Speech is prior to writing, and a great deal of information is communicated by the way sounds, words and utterances are pronounced; information that is not conveyed in written language.

3. *The many linguistic and indexical functions of speech...*

Speech provides various kinds of information simultaneously. In addition to fulfilling linguistic functions, speech is also a rich source of so-called indexical information:³ it expresses emotions and attitudes, it reflects personal characteristics of the speaker and it provides sociolinguistic (social and geographical) information about the speaker and the speech situation (Abercrombie 1967; Laver & Trudgill 1979; Foulkes, Scobbie & Watt 2010).

... and of prosody

An essential part of speech is its prosody—the suprasegmentals of speech,⁴ such as stress, tone, rhythm and intonation, expressed in the pitch contour, (relative) length and loudness, which can be measured acoustically as fundamental frequency, duration and amplitude. Whereas speech is prior to writing, prosody is prior to the segmental features of speech. Research has shown that, already before they are born, babies

1 “Fremmedspråkskompetansen må styrkes” (Meld. St. 25 (2016–2017), § 6.1)

2 As pointed out by our Danish colleague Tine Roesen, when visiting our Institute of Foreign Languages at the University of Bergen on 23 November 2016.

3 The term *index* in the sense of marker was introduced by Pierce and elaborated by Abercrombie (1967). Laver & Trudgill (1979) give a clear introduction to the formers’ usage of the term.

4 Following Amalia Arvaniti, I prefer the term *prosody* to *suprasegmentals*, so as to avoid the layering metaphor inherent in the latter. She argues that *prosody* is not supplementary to *segmentals* (as the layering metaphor implies), but an integral part of speech organization and intricately linked to the realization of segments (Arvaniti, to appear).

learn to distinguish their mother's language from other languages, based on prosodic information, primarily melody.⁵

Like speech in general, the prosody of spoken language serves both phonological (linguistic) and indexical functions. Three linguistic functions of prosody that are addressed in my language of study, Russian, are exemplified here. First, the position of stress can discriminate lexical meaning (Russian 'zamok⁶ "castle" vs. za'mok "lock"). Second, the difference between statement and yes/no-question can be expressed by intonation only:

- 1) Èto podarok^{L*}? "This is a gift." vs.
- 2) Èto podarok^{H*L}? "Is this a gift?"

Third, the placement of pitch accents is used to express information structure, just as in English:

- 3) Èto moj dom^{L*}. "This is my house." vs.
- 4) A èto tvoj^{HL*} dom. "And this is your house."

Prosody also reflects emotions and attitudes. A hearer is not interested in just the semantic content of what a speaker says, as pointed out by Pike in 1945:

The hearer is frequently more interested in his attitude than in his words—that is, whether a sentence is 'spoken with a smile' or with a sneer [...] If one says something insulting, but smiles in face and voice, the utterance may be a great compliment; but if one says something very complementary, but with an intonation of contempt, the result is an insult. (Pike 1945, 22)

5 See e.g. Mampe et al. (2009) and the references therein.

6 Russian words are transliterated to Latin script following Comrie & Corbett's (1993) transliteration system.

7 The pitch accents (intonation of the main pitch movements) are notated following the ToRI intonation transcription system (Odé 2008). L and H stand for a low resp. high tone; H* stands for a high tone target on the accented syllable. The pitch accent L* corresponds to a prototypical realisation of the intonational construction IK-1 in the better known intonation framework of Bryzgunova (Bryzgunova 1980); HL* corresponds to prototypical IK-2 and H*L to IK-3.

Finally, prosodic cues indicate personal and social attributes of the speaker, such as age, gender, social class, communities and networks, and regional provenance. The prosodic expression of emotions and social attributes is partly universal; for example, children speak with a high pitch level, and relatively high pitch in a speaker's pitch range expresses arousal. However, most prosodic information has a language-specific encoding (Ladd 1996, 292) and every language shows language-internal, sociolinguistic prosodic variation. Sociolinguistic differences carry social meaning: whereas some sociolinguistic variables that indicate social group identity are not consciously noticed by speakers of the language, others are salient and evoke strong attitudes.

Thus, a proper knowledge of a language includes in-depth knowledge of the information provided by the way it is pronounced, including its prosody. Since most of this information is encoded language-specifically, the prosody of a language should be learnt by new speakers of the language—both children and adult second-language learners—in order to fully grasp the meaning and connotations of utterances. Even communication between speakers of the same language may break down if they are not aware of social and regional variations in their own language. Vol'skaja (2013) found a generational difference in the intonation of speakers of Russian from St Petersburg, which can lead to misunderstandings because the contour she studied, characterised by a so-called late peak, is interpreted differently by different generations (Vol'skaja 2013).

4. Prosodic studies and their applications

In spite of the primary role of speech in linguistic communication, most research in language studies is based on written language (Linell 2005), especially in Russian linguistics, where written language appears to have an even higher status than in other languages (Kibrik & Podlesskaja 2009, 25; Tatjana Nikolaeva, p.c.). Among those who do study speech, most have focused on segmental features, not on prosody.

This lack of attention is understandable since prosodic features are complex and hard to describe, for both theoretical and practical reasons. Thomas (2011) calls intonation, the most commonly studied prosodic feature, a “bewilderingly complex topic” (Thomas 2011, 200). As explained previously, pitch, loudness and length simultaneously reflect

both linguistic and a range of non-linguistic phenomena, which vary greatly with person, dialect, situation and context. These intertwined features and functions of pitch, loudness and length are not easy to extract. The phonetics and phonology of stress, tone, rhythm and intonation are still much debated (e.g. Ladd 1996; Yokoyama 2014), and linguists have long been struggling to measure both rhythm and stress in a satisfactory manner (e.g. Fletcher 2013).

However, the incredibly rapid technological development in both hardware (microphones, recording devices, extremely powerful computers) and software (e.g. freely available software programmes for the acoustic analysis and elaboration of speech, such as PRAAT; Boersma & Weenink 2017) have made prosodic studies much more accessible. The rapid expanse and improvement of machine translation, text-to-speech generation and automatic speech recognition elevated speech technology to the front cover of *The Economist* on January 7th 2017 (Now We're Talking 2017).

While prosody plays a minor role in speech technology (Baltiner & Möbius 2005; Van Santen 2005), prosodic knowledge is applied in many other fields; for example, in forensic linguistics (voice recognition; e.g. Harris, Gries & Miglo 2014), in second and first language acquisition (e.g. the distinct intonation of child-directed speech; e.g. Snow & Balog 2002), in pragmatics (e.g. Wharton 2012) and in sociolinguistics, as part of so-called sociophonetics, i.e. the study of socially structured phonetic variation in speech (e.g. Thomas 2011; Foulkes, Scobbie & Watt 2010), which is the focus of this essay.

5. *The prosody of Russian*

In section 3 I mentioned three fundamental phonological functions of Russian stress, intonation and accentuation. The intricate Russian system for word stress placement has received considerable attention (Kodzasov 1999), but is hard to classify in prosodic typology: previous research on the Russian default stress pattern and metrical structure has yielded conflicting results (Lavitskaya 2015).

The literature investigating the phonetics and phonology of Russian intonation and phrasing, and their interplay with information structure, is also rather extensive (see Yokoyama 2014 for an overview), and Bryzgunova's intonation constructions (Bryzgunova 1980) are an inte-

gral part of most L2 Russian language instruction. However, neither the inventory of the objects of transcription, nor the levels of precision of intonational transcription have yet been agreed upon for Russian or any other Slavonic language, and Yokoyama regrets the near-absence of theoretical work addressing the phonology of intonation in these languages (Yokoyama 2014, 127).

Most studies of rhythm in Russian address the rhythmic structure of the word, i.e. the relative length of stressed and unstressed syllables, showing regional variability (e.g. Potebnja 1866; Vysotskij 1973). In the Central Russian dialect area, including Standard Russian pronunciation, words have a heavy nucleus (stressed and pre-stressed syllable) and light marginal parts (Potebnja 1866; Kodzasov 1999); i.e. vowels in immediate pre-stress position are much less reduced in both quality and length than other unstressed vowels in the same word. The word *moloko* ‘milk’ is pronounced [məla'ko] or [məɫ'ko], with a relatively short *schwa* and a long *a*. In other, non-central varieties of Russian, the unstressed vowels are more equally reduced in both quality and length.

6. *Socially and geographically conditioned prosodic variation in Russian*

Socially structured prosodic variation in Russian has seldom been studied. This is no surprise, since sociolinguistic variables as a whole are an understudied area in Russian, although there are some exceptions.⁸ According to Zemskaja, Kitajgorodskaja & Rozanova (1987) and Yokoyama (1999), Russian women tend to use intonational means differently from men. As mentioned in section 3, a small study by Vol'skaja (2013) found a generational difference in the intonation of speakers of Russian from St Petersburg.

With regard to geographically-based prosodic differences, most studies have considered traditional rural dialects (e.g. Paufošima 1983), primarily their rhythmic word structure (see previous section; e.g. Potebnja 1866; Vysotskij 1973). Regional prosodic variation in modern Russian urban speech is a virtually unexplored field.⁹ Intonation was taken into

8 There are only a few sociolinguistic variationist studies of Russian; i.e. empirically based studies of actual variation. A notable exception are the works of the Perm' school of linguistics, empirically studying socially stratified variation in the speech of the inhabitants of Perm' (e.g. Erofeeva 2005).

9 Among the exceptions are, besides Grammatčikova et al. 2013, a dissertation by Grišina (2003) about local prosodic traits in the speech of people living in Krasno-

account in Verbickaja et al. 1984, a study of regional phonetic differences in the speech of urban Russians, but in a later publication on the same topic, Bondarko & Verbickaja (1987, 11–12) discarded intonational differences, because Russian intonation lacks a clearly defined standard for intonation. They go on to argue that, without a standard, deviations cannot be measured.¹⁰

Grammatčikova et al. (2013) measured the word-prosodic structure, not in traditional dialects, but in the speech of young students from different parts of Russia. Their study confirmed the differences found in earlier studies of rural dialects between central Russian varieties with a heavy nucleus and the non-central varieties without. However, they analysed only a few speakers. Their preliminary results need to be confirmed using larger data sets.

The following sections focus on one specific reason why regional prosodic variation deserves to be studied in Russian: prosody is probably one of only a few cues in Russian that can discriminate regional provenance.

7. *Prosody as a cue to language and dialect discrimination: claims*

It is a common belief that prosodic characteristics, mainly intonation and rhythm, play a prominent role when lay people identify languages and dialects (e.g. Peters et al. 2002). To take an example from Scandinavia, it is claimed that the most prominent dialect/regional feature in Danish is intonation: Danes can often hear from a distance whether a speaker is from Bornholm, Copenhagen or Southern Jutland, even when the words cannot be understood, due to the—regionally coloured—melody of the stress groups (Grønnum 2005, 340).¹¹

jarsk, and a study of Odessa intonation by Janko (2015).

10 While there is a widely used description of Russian intonation (Bryzgunova 1980), the authors claim that the boundaries of what can be regarded as normative intonation are unclear: «Причиной этого являются главным образом теоретические трудности: недостаточная разработанность интонационных норм русского языка и пределов их вариативностью, из чего вытекают и практические сложности при оценке нормативности—ненормативности интонационной интерпретации текста информантом». (Bondarko & Verbickaja 1987, 11–12).

11 “Det er trykgruppens lille talemelodi, trykgruppemønsteret, der er vores stærkeste dialekt- og regionsprogskendemærke. Det er først og fremmest på disse små tonale figurer at vi (gen)kender hinanden som bornholmere, københavnere, sønderjyder o.s.v. Sådan kan man ofte høre—uden at forstå hvad der bliver sagt—tværs igennem et lokale hvor mange mennesker står og taler sammen, at derovre taler fx en born-

Similarly, Mæhlum and Røyneland (2012) claim that, even for Norwegians, intonation is the main key to dialect identification (2012, 29),¹² although the dialects vary in many more realms of language. However, regional prosodic differences are particularly interesting to study in the languages of centralised countries with little regional variation, such as Denmark—or Russia. The variability of Russian speech is very low compared to that of Norwegian; most young urban Russians display few regional features in their speech. Nevertheless, Russians can often, after hearing the first word, distinguish speakers from, say, Brjansk (Southern Russia), from Perm' (Ural region) and from Moscow, as claimed by Grammatčikova et al. (2013, 72). We expect that much of this ability is due to regional differences in prosody, as Grammatčikova et al. (2013, 72) wrote earlier, since prosody appears to be less prone to standardisation than other features of language.

8. *First experimental verification in other languages*

The claims regarding the prominent role of prosody as a reliable cue for language and dialect discrimination are mainly impressionistic. Prosodic features usually play a minor role in dialect descriptions, if mentioned at all.¹³ However, linguists have recently been undertaking perception experiments for a couple of other languages, which indicate that intonation may indeed be a cue in the identification of regional varieties, in particular when identifying one's own dialect (e.g. Gooskens 1997 for Dutch and English; Peters et al. 2002 for varieties of German; Van Leyden 2004 for Orkney and Shetland English). For instance, by using controlled manipulation of intonation, Van Leyden found that native listeners had no difficulty in discriminating between the Orkney and Shetland varieties when

holmer.” (Grønnum 2005, 340) A prosodic stress group, or foot, in Danish is the stretch of speech from one stressed syllable the next.

12 “[I]ntonasjon er det målmerket som lekfolk først og fremst bruker for å identifisere dialekter” (Mæhlum and Røyneland 2012, 29); cf. Hognestad (2012, 183) for a similar claim.

13 To take the Norwegian example again, some studies describe the intonation of one or more Norwegian dialects (e.g. Nilsen 1992; Abrahamsen 2003; Hognestad 2012), and quite a few address the realisation of the two tonal word accents in various dialects (e.g. Fintoft 1970; Hognestad 2012). However, the existing descriptions of prosodic dialect features in this language are seldom comparative, and I am not aware of any perception studies of prosodic differences in Norway.

presented with speech fragments containing only melodic information (Van Leyden 2004). Recently, Grønnum's claim regarding Danish dialects received experimental support (Kristiansen, Phrao & Maegaard 2013). The role of other prosodic cues besides intonation has been studied as well. Szakay (2008) found that rhythm is perceptually relevant for the identification of two ethnolects of New Zealand English—Maori English and Pakeha English (i.e. the variety of English spoken by New-Zealanders of European descent).

9. *The social meaning of prosodic cues*

When prosodic features are a characteristic of regional “accents,” they can carry social meaning; a local accent may trigger stereotypes that are associated with people from the actual region. If people can hear that a Danish speaker is from Bornholm, this knowledge evokes certain expectations about this speaker.

Does the same account for speakers with local Russian prosody? How many Russians can actually perceive the subtle prosodic regional differences that we expect to find? And if they do, what social meaning is attached to them, and are they salient? Sociolinguistic variables are often ranked as indicators, markers or stereotypes, in increasing order of awareness (following Labov 1972). While indicators are variants with little or no social message attached, markers are salient variants that are socially significant, and stereotypes are popular, but imprecise, characterisations of speech as used by social groups (Labov 1972; Honey 1997). Markers and stereotypes are subject to stylistic variation and may be used by social groups as social markers—markers of social identity—to distance themselves from other groups or imitate more prestigious groups (Honey 1997).

10. *Social indicators, markers and stereotypes in Russian*

Russia is a country with a dominant economic and cultural centre, and a strong monoglossic ideology (e.g. Del Valle 2000), and Standard Russian has an accordingly high status. According to this ideology, a Russian should try to speak without regional features. Of course, this does not mean that regional features are not used; like other languages, Russian has socially-structured linguistic variables that function as indicators, markers or stereotypes. Some are stigmatised, but seem to have covert

prestige when used under the right circumstances; others may have little social significance and not even be noticed, being within the norm for standard language use.

Mikhail Gorbachev's language was characterised by stigmatised linguistic features. He was well-known for his "bad" Russian, which was ridiculed in a 1995 song that became very popular.¹⁴ A Russian told me that the mere sound of his voice was—and is—enough to evoke negative connotations. Is this true for many Russians, and to what degree is this impression due to his Southern Russian pronunciation? The degree to which Gorbachev's southern Russian phonetics has contributed to his unpopularity in Russia is still to be studied. In contrast, the highly respected Vladimir Putin speaks impeccable Standard Russian.

The most wide-spread and salient Southern Russian feature is arguably the pronunciation of the voiced velar as fricative [ɣ], corresponding to Standard Russian plosive [g]. Previous perception studies (e.g. Andrews 1995) indicate that this feature is stigmatised in the traditional high-status domains, at least when used in the formal domain of reading texts.

One should keep in mind that the indexical, social functions of a sociolinguistic variable are not usually the result of categorical usage or non-usage of a particular variant, but are rather manifested in statistical differences in a form's distribution across speakers, groups, or speech styles (Foulkes, Scobbie & Watt 2010). Studies of the speech of the city of Perm' suggest that some regional phonetic variables are actually used by all social groups in this city, though least often by highly educated inhabitants (Erofeeva 2005). This may indicate that they have relatively high prestige, at least in Perm', but they may also be mere indicators, with little social meaning attached. Or are they markers after all, for example, of a local identity?

Fortunately, there has been a recent increase in speech-perception experiments investigating individuals' use of sociophonetic information (Warren & Hay 2012, 637; the references in section 8), even in Russia (e.g. the above-mentioned Andrews 1995). Nevertheless, studies of prosodic variation and its social meaning are still scarce.

¹⁴ The song "Gospodin Daduda" by Mixail Zadornov (1995).

11. *First results*

Russian and foreign colleagues have started studying the social meaning of regionally coloured speech in Russian (e.g. Krause 2011). Our studies seek to answer the following questions: Do Russians pay attention to regional differences in speech? And what are the social consequences of having a regional “accent,” if there are any? (cf. Krause et al. 2015). However, before it is possible to study the social connotations of accents, the regional differences themselves need to be identified.

The preliminary findings of Grammatčikova et al. (2013) regarding the rhythmic differences in the speech of young students from different parts of Russia need to be confirmed using larger data sets. Based on recordings made by Benedikte Vardøy and the author (Vardøy and Post 2015), we are currently analysing vowel quality and relative length in the speech of young people from Perm', Novosibirsk and Moscow. The initial analyses of our first recordings from these three Russian cities confirm previous findings about regional differences in vowel quality and rhythm.

Vardøy has interviewed a group of adolescents in these three cities and asked them about regional differences in Russian. On these recordings, several of those interviewed in Perm' imitate the long, pre-stressed [a]'s—“Ma-askvá”—characteristic of the speech of many people from the Moscow area (Vardøy, in prep.).

The intonation in our recordings is yet to be studied. The late peak contour in St Petersburg Russian described by Vol'skaja (2013) also appears to be frequent in our data from other Russian cities, as well as among speakers from the Siberian city Krasnojarsk (Grišina 2003). In addition, another question requiring further study is whether the difference Vol'skaja (2013) found is purely generational, or whether its distribution also shows geographical variation. Following the analysis of the recordings, perception studies are needed in order to find out both the linguistic meanings and the social connotations of the differences among various social groups.

My own study of a typically Northern Russian intonation contour suggests that it is mainly used for a specific subtype of questions, a subgroup that has a specific intonational configuration in (dialects of) other languages as well (Post 2008).¹⁵ This subtype appears to have a distinct

15 The “broad hat” contour is typically used in utterances with a strong bias to a positive answer and a lesser degree of questionhood, such as in requests for confirmation of

intonation in Standard Russian as well, but its form and function have not yet been studied in detail, even in Standard Russian. In describing regional intonation, researchers often lack a robust intonational model for the standard language to compare with.

12. *SCoRRUS: A planned spoken corpus with both read and spontaneous speech*

In order to be able to study regional differences in pronunciation, more comparable speech data has to be gathered and analysed (Krause et al. 2015). Therefore, a group of linguists from Russia, Germany and Norway has designed a project to study objectively measurable regional differences within the Russian language in Russia, as well as the subjective attitudes of the language users towards these differences, taking into account both horizontal (geographically based) and vertical (socially based) linguistic variation. These data will be gathered in a corpus entitled SCoRRUS (*Spoken Corpus of Regional Russian Urban Speech*; Krause et al. 2015). My contribution to the project will be the study of prosodic differences. The project is inspired by previous studies of regional variation in Russian (Verbickaja et al. 1984; Bondarko & Verbickaja 1987; Skrelin & Sherstinova 2000) and, among others, by the project *Intonational Variation in the British Isles* (Grabe, Post & Nolan 2002; Nolan & Post 2014) and various atlases and other databases of regional variation in intonation or prosody in a range of languages.¹⁶ Unlike most speech corpora and previous projects on Russian regional variation, these databases include several speaking styles of a single speaker, including both read, semi-spontaneous and spontaneous speech, thus meeting the requirements of both comparability and ecological validity; that is, how close the recordings are to natural speech communication (Post and Nolan 2012, 544). In the new corpus, several speaking styles will be represented and, at a later stage, various social groups. The data should be made easily available and easily searchable, for example, like the small dialect database *Ustya River Basin Corpus* (Waldenfels, Daniel & Dobrushina 2014).

an inference going counter to an earlier presupposition of the speaker (Post 2008), e.g. a counter-expectational “So this is your house?”

16 E.g. by Prieto & Cabré 2007–2012; Martínez & Fernandez 2003–2015; Frota & Prieto 2015.

13. *Concluding words*

In this essay, I have argued that the study of prosody, and of speech in general, is essential for a proper understanding of verbal communication, and focused on the contribution of prosodic features to the conveying of linguistic and social meaning.

In successful (intercultural) communication, the collocutors are aware of language-specific social markers. Salient sociolinguistic variables evoke certain expectations regarding the speaker. A good language user is aware of their social meaning, since some markers evoke strong attitudes. Part of this indexical meaning is provided by prosodic means. Even in languages with relatively little regional variation, such as Russian, native listeners can often identify the regional origin of a speaker, possibly largely based on prosodic cues.

Thus, prosody is worth studying; it carries communicatively relevant meanings, and certain features may be social markers. But these meanings can only be studied after we have established a proper description of the features themselves. To this day, many facets of prosody and its social meaning remain *terra incognita*. And without proper knowledge of our subject, we do not even know what knowledge we are missing.

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