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The Intelligibility and Comprehensibility of Learner Speech in Russian: A Study in the Salience of Pronunciation, Lexicon, Grammar and Syntax

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by

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Abstract

This study of L-2 Russian interlanguage production examined the salience of phonetic, lexical and syntactical features for L-1 listener intelligibility, based on L-2 recitation of written scripts (Part I) and also unrehearsed speech (Part II). Part III of the study investigated strategies used by native-speaking teachers of Russian as a Second Language and experienced Russian host families to facilitate comprehensibility of L-2 Russian speech.

The respondent group consisted of 51 native-Russian speakers plus a 20-member ethnic Russian control group, whose speech samples were also rated by the informant group. The 51 respondents comprised four sub-groups based on residency (Russia/US), profession (teacher/non-teacher of Russian as a Second Language), experience with Americans and knowledge of English.

Part I participants listened to eight L-2 American speakers of Russian of beginning, intermediate, advanced and superior proficiency levels read a text in Russian and noted which aspect(s) of L-2 speech affected intelligibility. In Part II, participants listened to the same L-2 speakers spontaneously speak in Russian about their families, and then recorded which non-nativelike productions in grammar, pronunciation, lexicon and syntax were salient. In Part III, 18 L-2 Russian Teachers and 8 Russian home-stay family hosts were surveyed regarding both effective and ineffective strategies used to facilitate comprehensibility with American speakers of Russian.

The results of Part I revealed the salience of L-2 pronunciation (especially of paired consonants) by speakers of all proficiency levels for L-1 listener intelligibility. However, data revealed that native Russian listeners rated “lack of emotional expression”

[intonational contours] as having most interfered with the intelligibility of speakers in the control group.

Part II findings confirmed that, although ratings across different respondent groups varied regarding L-2 proficiency levels and degree of incomprehensibility, non-nativelike pronunciation by L-2 speakers of all levels resulted in the greatest incomprehensibility for L-1 listeners. Six of the eight respondent groups determined that incorrect word choice by Level 1, 2 and 4 L-2 speakers resulted in incomprehension. Four of the eight respondent groups identified non-normative productions in L-2 syntax by Level 1 and 2 speakers as salient. Hesitation devices and fillers used by L-2 speakers also resulted in L-1 listener incomprehension.

The results of Part III showed that inter-active strategies used to clarify or improve poor L-2 pronunciation or grammar knowledge are most effective when students are highly motivated, have low inhibition, and make a concerted effort to communicate with their teachers, as well as with home-stay hosts.

Vita

I, Jill Ann Neuendorf, was born in Beaver Dam, Wisconsin on December 17, 1971. I graduated from Beaver Dam Senior High School in the spring of 1990. In the fall of that year I entered the University of Wisconsin-Green Bay (UWGB) where I double-majored in German and Humanistic Studies. While in college, I studied in Kassel, Germany, through a university exchange program and received a one year scholarship to study Chinese at National Taiwan Normal University in Taipei, Taiwan. Although UWGB does not have a Russian department, the university did offer an exchange with Kharkov State University in Kharkov, Ukraine. I decided to take advantage of the opportunity to learn Russian and went to Kharkov in 1994 for six months for individualized Russian grammar and conversation classes.

After graduating from UWGB in the spring of 1995 I returned to Kharkov after receiving an offer to teach English at Kharkov Polytechnical University. For the next school year I not only taught English for Specialized Purposes, but also continued taking private Russian classes with a tutor.

Following the completion of my teaching assignment, I applied to the Peace Corps and was accepted. I was sent to Russia and, thanks to my teaching experience in Ukraine, was chosen for a teaching position in Moscow at the Russian Teacher Training Institute where I conducted English language and culture classes for teachers from all over Russia from 1996-1998.

On the invitation of one teacher who attended my classes, I moved to Izhevsk, Russia to teach English culture classes at the Izhevsk Teacher Training Institute, Udmurt State University, Teacher Training College and three specialized English schools. I lived in Izhevsk from 1998-1999. While there, I continued taking private Russian classes with a tutor.

I entered the Graduate School of Language Education at the Monterey Institute of International Studies (MIIS) in Monterey, California in the fall of 1999. While enrolled at MIIS, I also completed courses in translation and interpretation between Russian and English. In the summers of 2000 and 2001 I worked as a Russian translator and English-language editor at Tver' InterContact Group in Tver', Russia. I graduated from MIIS in 2001 with an MA in Teaching Russian as a Foreign Language. My thesis was entitled, "An Examination of Factors Necessary for Students to Become More Successful Foreign Language Learners."

In the fall of 2001 I received a position at American Councils for International Education in Washington DC where I worked on the Partners in Education (PiE) program. The main goal of this program was to bring history and civics teachers from the former Soviet Union to the US for eight-week internships. While employed with PiE, I organized orientation sessions for participants in Washington DC and conducted sight visits to their internship locations throughout the US.

I was offered a position in the fall of 2003 through American Councils for International Education as Resident Director in Vladimir, Russia. In this capacity I was a liaison between the teaching staff at the Center for Russian Studies "KORA" and the American students who were studying there. I also regularly attended Russian language classes together with my students and took private Russian classes.

After working in Vladimir for two years I entered the Department of Russian and Second Language Acquisition at Bryn Mawr College in the fall of 2005. From 2005-2006 I taught first- and third-year Russian classes at the University of Maryland. From 2006-2008 I was a Teaching Assistant at Bryn Mawr College where I taught first- and second-year Russian Conversation and classes in the Flagship Program. In 2007 I began teaching first- and second-year Russian, Introduction to Russian Culture and Russian Conversation at Swarthmore College. In the summers of 2006 and 2007 I taught Russian at the Russian Language Institute at Bryn Mawr College, and was the group leader for American Councils for International Education's Golden Ring Program, which provides high school students with Russian language study in Vladimir, Russia.

I was accepted for PhD candidacy after passing my preliminary exams in the spring of 2008. In the summer of that year I received the Kline Fellowship through Bryn Mawr College to conduct eight weeks of research for my dissertation in Vladimir, Russia.

In February 2010 I was hired as a Russian language instructor at Georgetown University in Washington DC where I will begin teaching in September 2010.

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It is also important for me to thank all of my Russian friends in the former Soviet Union and the US not only for the endless hours they spent explaining different elements of Russian grammar and culture to me, but for always treating me like one of their own.

I also cannot thank my family enough for their constant support, encouragement and reassurance. I especially want to thank my parents, Roger and Elaine Neuendorf, my aunt, Eldean Walling and my cousin, Erin Herold. They instilled in me a love of learning, appreciation for education and other cultures, and confidence to keep working in order to accomplish my goals. To them I dedicate this dissertation.

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Introduction

When analyzing the speech of non-native adult learners of any foreign language, it is important to consider the hierarchy of language production that occurs, which is commonly represented by the inverted pyramid of the Interagency Language Roundtable (ILR) proficiency scale. As one might expect, the lower a language learner's knowledge of a foreign language, the lower s/he is on this hierarchy. Students who have just begun to learn another language, for example, often lack sufficient knowledge of the correct use of lexicon, grammar and collocations to make themselves comprehensible in the target language on the lexical level, which is the critical component for most communication at the novice (0) level. On a phonemic level, however, novice-level speech may be comprehensible to native speakers, despite occasionally mispronounced sounds and incorrectly placed word stress.

As one might expect, as learners continue to speak and understand the foreign language, they begin to move beyond memorized words and phrases to attempt to create with the language on the level of the sentence, taking linguistic risks and experimenting with their yet-incomplete knowledge, which often results in their incorrect use of words and sentence structures in the L-2. In addition, certain sounds may still be difficult for beginners to articulate. As a result, native speakers, accustomed to dealing with foreigners, may comprehend L-2 speech and its meaning, but experience difficulty in understanding certain sounds, words and phrases. In addition, beginning-level speakers are easily recognizable and may require a degree of linguistic accommodation.

As learners progress further up the scale of L-2 production and enter the advanced stages of learning, they gain a deeper understanding and a greater degree of control and

automaticity for the patterns of native use of words and phrases, which is sometimes called a “feel” for the language. Thus, unlike less proficient speakers, the production of advanced learners more clearly resembles the native model and, although it contains phonetic inaccuracies, they are fewer in number than with less proficient learners, and do not complicate comprehension for most native speakers. However, occasionally incorrect word choice or slightly imprecise pronunciation distinguishes advanced-level speech from the professional level.

Learners who manage to reach the superior or professional level of language learning speak effortlessly and smoothly, exhibiting good control of professional discourse and a broad range of communication skills across different social and professional situations. The pronunciation of superior-level speakers varies greatly, however, with some individuals having an accent closer to the native model than other speakers. Nevertheless, regardless of how correct a superior-level speaker’s pronunciation is deemed to be, it is rarely, if ever, mistaken for native.

Just as a learner’s speech characteristics reflect his/her level of proficiency, so also does the native speaker’s comprehension of non-native speech depend upon several different factors. For instance, native speakers accustomed to non-native speech have little difficulty processing and comprehending the speech of beginning-level students representing certain language groups that are familiar to Russians. However, native speakers with limited or no contact with foreign learners may experience a great deal of difficulty understanding the novice or intermediate-level speaker. Among the groups of potential native informants for whom comprehension of native and intermediate speech is generally non-problematic are individuals who teach their native language to foreigners,

native speakers who host foreigners and may be familiar with the native language of the learner, and people who have contact with foreigners on a regular basis.

In order to make sense of the factors that contribute to the inability of native speakers to understand non-native speech, it is necessary to focus on the role that intelligibility and comprehensibility play in this equation. For example, is it possible to identify and describe the conditions under which non-native speech becomes intelligible and incomprehensible to native speakers? In order to answer this question, I have decided to research the role played by structural precision (phonetic, lexical, grammatical) in comprehension by native speakers of the L-2 speech production of adult American learners of Russian at various levels. Specifically, my research focuses on the relative importance of lexical, phonetic and intonational correctness in native speaker comprehension of non-native speech in Russian. My reason for choosing to research the grammatical and phonetic accuracy of non-native speakers is connected with the need to strengthen understanding of the variables that weigh most heavily in native speaker reactions to non-native speech in order to establish valid teaching priorities for second language learners.

It is important to begin by focusing on language as a whole and the role it plays in the communicative process. Schiffrin (1987:6) claims that human speech "always has a recipient, either immediate or eventual," and that the addressee, while decoding the verbal message, must know how to interpret the words and their meaning and also the speaker's intentions. Thus, *how* a speaker pronounces words is just as important as *what* the speaker says. In the case of communication between native and non-native speakers tolerance for ambiguity stretches across ethnic boundaries and varies due to individual

differences and previous experience that listeners may have communicating with foreigners. However, not only does listener comprehension vary, but so does the L-2 speech of language learners range from near-native to moderately unclear to completely unintelligible.

Smith and Nelson (1985) link comprehensibility with utterance meaning, while James (1998: 212) states that it "is concerned with the communicative effect of non-native like production." Deetz (1994: 303) provides a more detailed explanation of comprehension when he asserts, "comprehension, involving a set of cognitive processes, is the product of constructing meaning by implementing a set of strategies for selecting, retrieving and integrating a number of information sources (e.g. background knowledge, textual features, memories and emotions) to form a mental representation of the discourse that sufficiently captures the gist of the source's intent." It should be added that comprehension is a dynamic and changeable function of human understanding in which the source, context, message and receiver all play a role in the message's overall correct interpretation.

Although comprehension is connected with word and utterance meaning, intelligibility, according to Smith and Nelson (1985: 334) deals with "word and utterance recognition." Jenkins (2000: 71) expands on this idea by defining intelligibility as "the production and recognition of the formal properties of words and utterances and, in particular, the ability to produce and receive phonological form." Just as components such as source, context, message and receiver all play a part in the overall comprehensibility of a message, intelligibility also derives from different sources, which are both linguistic and non-linguistic (Fayer and Krasinski 1987: 313). For example, the

linguistic aspect consists of matters of style, such as speed or hesitations, intonation, word stress and rhythm, or matters of linguistic form, such as how close the form of the message is to the target language. The non-linguistic content, however, stems from the relationship with the speaker and what the speaker is saying, or physical characteristics of the speaker or environment that are distracting (Fayer and Krasinski 1987: 313). Thus, variables other than the ability to simply recognize words and utterances influence the intelligibility of a message.

It is also worth noting that a speaker who is unintelligible to one listener might be understood quite well by a different individual depending on the level of sympathy the listener has for the speaker, how familiar the listener is with the speaker or with other speakers from the same L-1 background, as well as how familiar the listener is with the topic in discussion. (AMEP: 1) In addition, other variables such as the listener's attitude to the speaker and the speaker's ethnic group, and the listener's comprehensibility of a speaker's accent may also influence intelligibility.

Hongyan (2007: 10) provides experimental evidence of the relative contribution of pronunciation to speech comprehension and thereby shows that pronunciation, rather than grammar or vocabulary, affects comprehension. Moreover, she asserts that it is the second language learner's transfer of structures from the native language to the target language that affects pronunciation the most

Johannsson (1978) and Ludwig (1982) are of the opinion that native speakers most often judge nonnative pronunciation in terms of the speaker's overall intelligibility, the irritability of the accent, or its acceptability. The reason behind this focus on a second language speaker's correct pronunciation is clear – without maintaining at least a

threshold level of pronunciation, communication is difficult at best or non-existent at worst.

Pronunciation, like the other speech components, will draw attention to itself through the 2 and 2+ level, although native speakers can almost always make at least some sense out of incorrect utterances produced by L-2 learners. Pronunciation and grammar control are, to quote Schumann and Stenson (1974: 48), "linked to attitudes and social structure. Deviancy from grammatical or phonological norms of a speech community elicits evaluational reactions that may classify a person unfavorably. Our speech, by offering a rich variety of social and ethnic correlates, each of which has attitudinal correlates in our own and our listener's behavior, is one means by which we remind ourselves and others of social and ethnic boundaries, and is thus a part of the process of social maintenance." Therefore, speech tells volumes about who we are as individuals and, in the case of second language learners, it reveals a great deal about their attitude toward the target language and culture. For that reason, careful monitoring of L-2 grammatical and phonetic production requires on-going attention by students and second language instructors.

Chapter 1

LITERATURE REVIEW

1.0 Description of Factors Affecting L-2 Comprehensibility and Intelligibility

A review of the pertinent literature in the field of comprehensibility and intelligibility in adult second language production shows two major directions of inquiry: description of L-2 production using the rigorous tools of L-1 phonetics and pronunciation analysis to compare in detail the features of L-2 speech in light of comparable L-1 models. A second and more recent trend in the literature further examines L-2 production from the point of view of its salience in actual communications with native speakers: interlocutors or native speaker observers are asked to point out features that aid or detract from communication with the non-native subjects and to specify empirically which speech components (segmentals, super-segmentals, sylllable structures, voice settings, etc) contribute to intelligibility and comprehensibility, and which ones do not.

Intelligibility and comprehensibility of L-2 learner speech is affected both by linguistic and non-linguistic factors. Linguistic factors include not only phonetic, but also lexical and grammatical variables, which relate to the degree to which L-2 speech approximates the target norm. The present study will make use of the descriptive tradition to analyze and interpret salience in actual communicative acts of the research subjects. The research tradition itself is quite rich, as the review will indicate.

1.1 Phonetic Variables That Influence the Intelligibility and Comprehensibility of L-2 Speakers

Several phonetic variables that are used to gauge the accuracy of L-2 learner pronunciation with respect to an ideal native-speaker model will first be examined. These categories include: segmentals, super-segmentals, syllable structure and learner preference for one sound over another based on socio-linguistic variation in the native language (L-1) that is transferred to the second language (L-2).

1.1.1 Segmentals

Segmentals comprise one major phonological level at which non-native speech pronunciation may be tested for intelligibility: consonants and vowels (for example, the substitution of one sound for another or the modification of a sound), voicing-devoicing, vowel reduction and paired consonants (Anderson-Hsieh et. al.: 530). In particular, sounds that are phonetically different from those in the L-1 are likely to prove the most difficult to produce, at least initially, due to the fact that the learner must learn to activate articulators in new ways. In a survey of 317 languages, Keys (2000: 85) found that the phonemes /i, u, a/ appeared in more than 250, the phoneme /m/ in over 300, but /x/ occurred in only 76 and /ts/ in 46. Based on his findings, he makes the claim that less frequent sounds are more difficult for learners to acquire (Keyes 2000: 85).

Conversely, a similarity between phonemes in the L-1 and L-2 can result in the learner's assumption that the two sounds are in fact the same across the two languages (Jenkins 2000: 8). In Scovel's (1976) opinion, interference is rampant in phonological development, especially when it seems to the learner that sounds in the L-2 resemble

those in the L-1. The explanation for such overgeneralization is that the learner is guided by categories that have been established for the L-1 (Bongaerts 1995: 449), thus resulting in difficulty establishing new phonetic categories for the L-2. The outcome is that learners, in relying on their already-established L-1 phonetic categories, often pronounce sounds in the L-2 just as they would those in the L-1, if they are unable to distinguish a phonetic difference between them. Sounds which are new, however, and do not have a perceived counterpart in the L-1 are likely to be acquired more accurately because "they escape the limiting effect of previous phonetic experience" (Flege and Hillenbrand 1984: 198).

As a result of learners incorrectly identifying new sounds in the L-2, their pronunciation may become inaccurate. Flege concluded that the "phonetic distance" status of the phones involved provides a reliable predictor of the target language accuracy with which phones will be realized in the L-2 (1987a: 324). For example, when a phone does not exist in the L-1 but is found in the L-2 learners often have less difficulty producing it than phones that learners believe are "similar" to those in the L-1. Flege (324) concluded that such phones are produced with non-target values.

Flege and Hillandbrand (1984) confirmed this claim by conducting a study in which six male and six female English native speakers of beginning French were asked to assess the vowel contrast between the French syllables /ty/ (tu) and /tu/ (tous). The researchers concluded that native speakers of English may produce new phones in an L-2 more accurately than those phones that have a clear counterpart in the native language. These researchers thus concluded that the inexperienced American speakers produced the new vowel /y/ more accurately than /u/, which has a counterpart in English.

Beebe (1984) came to a different conclusion than Flege and Hillandbrand regarding pronunciation inaccuracies and phoneme substitution. She researched the pronunciation difficulties of 25 English as a Second Language (ESL) students from Japan, China, Korea, Thailand and Indonesia and found that most of the instances when her subjects produced non-native like sounds did not involve substitution of one phoneme or another. In fact, they did not involve confusion of phonemes at all. Rather, they involved phonetic approximation or overgeneralization of a target sound. For example, 91 percent of the linguistic inaccuracies her subjects made were approximations of English /s/, and 43 percent of their inaccurate production of /i/ were approximations of /i/ (56). Beebe also asserts that in most cases instances of non-native like pronunciation do not involve transfer of a native language variant. She makes this claim based on the fact that many phonetic variants in L-2 learner speech cannot be found in either the native language or the target language, since they are actually approximations of target language variants.

One may argue that learners need not produce all sounds perfectly because the context may compensate for any deficiencies made in individual sounds. However, in studies done by Jenkins (2000: 12) involving phonetic substitutions of English sounds by Japanese, Taiwanese and Korean speakers, she found that the incorrect forms regularly led to intelligibility problems for those listeners who did not share the speaker's L-1, although in the majority of cases a clear context was available at the time the deviant form was produced.

Consonant deletion may also impact on a second language learner's intelligibility. In a study done by Suenobu, Kanzaki and Yamane (1992), 48 Americans listened to

speeches made by 80 Japanese students and transcribed particular words and sentences exactly as they had heard them. The researchers found that consonant deletion had the highest rate of unintelligibility – that is, the words that contained instances of consonant deletion were the hardest for the L-1 English speakers to understand. Thus, Suenobu et al. concluded that these results support O'Connor's view (1980: 24) that consonants – and not vowels – contribute the most to making English oral speech understandable.

Pronunciation of vowels and vowel reduction must also be considered for the heavy weight they carry in affecting the intelligibility of non-native speech. It has been argued (Best 1993) that the incorrect pronunciation of vowels, which have greater intensity and duration than consonants, should be more detrimental to intelligibility than the incorrect pronunciation of consonants. Elsendoorn (1983) even contended that a non-authentic pronunciation of vowels is to blame for a foreign accent.

The pronunciation of Russian voiced consonants presents a particular problem for native speakers of English due to the fact that L-1 English speakers tend to substitute semi-voiced consonants for voiced ones (Fedyanina et al. 1985: 532). Russians, on the other hand, regard semi-voiced consonants as voiceless. Native English speakers need to remember that when speaking Russian, the tenser the sound, the less voiced it is, which is the opposite in English. Pronouncing Russian voiced consonants with the same degree of tension characteristic of their English counterparts automatically devoices them (Fedyanina et al., 1985: 532).

In an effort to determine how native speakers of Spanish evaluated the comprehensibility of non-native speech samples, Schairer (1992: 317) had her participants evaluate the samples with respect to: 1) comprehensibility, agreeableness or

disagreeableness of voice; and 2) nativeness of accent. She came to the conclusion that the comprehensibility of L-2 speech might be best improved by concentrating first on the native-like pronunciation of vowels, then on the appropriate linking of word-final consonants and vowels, and finally on the production of consonants. In particular, Schairer's data showed that her participants rated speakers as non-native when they did not stress over 60 percent of Spanish vowels.

The pronunciation of Russian vowels and vowel-reduction in the speech production of non-native learners can also be influenced by the Russian spelling system, which does not uniformly follow the principle of one symbol for one sound. Therefore, instructors and students alike must pay close attention to Russian phonology, keeping in mind those automatic changes affecting Russian pronunciation (for example, vowel reduction, voicing/devoicing of consonants, etc.) which are not reflected in the written forms of the words. In research done by Ogorodnikova (1993: 179) on American learners of Russian and vowel reduction, she determined that American students are more likely to round the unstressed "о" (called "оканье" in Russian) in reading than in speaking. She explained this discrepancy by the fact that speaking requires L-2 learners to retrieve phonological representations from long-term memory, while reading is, to a great extent, based on recoding and varies depending on the reader's proficiency level. Thus, she determined that inaccuracies in recoding cause the rounding of the unstressed "о," which reflects the reader's proficiency level and is not governed by phonetic factors.

1.1.2 Super-segmentals

A second dimension of phonology that impacts on the intelligibility of L-2 speech is known as the super-segmental, or prosodic domain. It refers to stress within syllables, words, phrases and longer stretches of speech, intonation and speech rate (Pennington and Richards 1986: 210).

Exactly how much do super-segmentals influence intelligibility? Goldman et al. (1980: 157) and Prator (1971) assert "as far as phonology is concerned, word-stress, rhythm and intonation have a fundamental function in communication and must be assigned 'the highest of all priorities'" (Prator, 1971: 68). Johansson's (1978) study on the effects of prosody and segmentals on pronunciation judgments made by native speakers support Prator's assertation. In particular, he found that his British English judges consistently rated extended speech samples of Swedish ESL learners more severely than they did word lists and sentences, therefore suggesting that super-segmentals weighed more heavily than did segmentals in judgments made by native speakers. Additionally, Johansson found evidence for less tolerance for super-segmental deviance in a comparison between a speaker with correct super-segmentals and poor segmentals and another speaker with poor super-segmentals and correct segmentals, with the ratings being higher for the former.

In focusing on one type of super-segmental, i.e. word stress, Benrabah (1994) showed how incorrect stress placements lead to intelligibility with his study of Indian, Nigerian and Algerian speakers of English, whose monologues were given to British speakers to analyze. He learned that when native listeners heard learners pronounce *suitable* as "suiTAble" they claimed to have heard "the level;" when they heard

secondary pronounced as "seCONdary" they thought the speaker had said "country," and *forgot* pronounced as "FORgot" was thought to be "forelock" (161). Based on these data, Benrabah concluded that when native speakers must try and understand incorrectly stressed words, they do not produce patterns randomly; rather they form an interpretation based on the pattern produced by the non-native speaker. As Aitchison (1994: 83) stated, "A hearer is in a similar situation to someone trying to complete a partially solved crossword puzzle: a few pieces of word are likely to be in place, but the rest has to be guessed with the help of diverse clues. Thus, when trying to solve a crossword puzzle of incorrectly stressed words, native speakers impose their own intuitive expectations on to a sketchy outline to make the unintelligible at least somewhat intelligible."

Just as Benrabah found that incorrect word stress is correlated with intelligibility, so Magan (1998) and Major (1986) determined that super-segmentals are also connected with global foreign accent. In their study, they removed all segmental information from speech and discovered that judges were still able to distinguish between English passages spoken by native speakers and native speakers of Mandarin. Super-segmentals, then, are not just moderately important in influencing foreign accent, but based on Anderson-Hsieh, Johnson and Koehler's (1992) research done with English learners from different L-1 backgrounds, they are more important than segmental and syllable structure factors.

It is worth mentioning how differences in Russian and English stress systems may cause Russian native speakers to misunderstand Americans speaking Russian. One primary difference between the two systems lies in the fact that Russian words do not receive multiple stresses; instead a single stress is associated with a given syllable based primarily on lexical information (Kalenchuk and Kasatkina 1993, Coats 1976, Halle

1973). Moreover, stressing the correct syllable is critical in Russian colloquial speech, according to Zemskaya (1983: 43-44) because it is often characterized by deformation or complete loss of syllables, with the exception of the stressed syllable. An example is the word *завоёвывать* [zavojovyvat], which takes a null morpheme in the fourth syllable, thus resulting in the pronunciation as "zavojov_vat'."

The situation, however, is quite different for English words, which may contain several stressed syllables of differing amplitudes and lengths, including one syllable with primary stress, e.g. *para'phrase* (Hayes 1995). American students studying Russian, therefore, would be hypothesized to incorrectly stress Russian words in keeping with their established English word-stress parameters. In order to research mistakes made by American students learning Russian stress, Hart (1994: 269) administered an oral test to Russian students from six American universities who were in the second to fourth year of their studies. After recording their speech and extracting stress data from the recordings, he confirmed that one word out of every four or five had incorrect stress and, subsequently, incorrect pronunciation due to stress.

If we consider how American students of Russian might apply English stress patterns to the word *paraphrase* it is clear how misunderstandings may arise. In the Russian word *парафраз* [paraphrase] stress falls only on the second syllable, i.e. *фраз* [phrase]. However, if American students tried to pronounce *парафраз* [paraphrase] in keeping with English stress rules, they would probably say "парə фраз," which could be interpreted by a Russian native speaker as two words – *пара фраз* [a pair of phrases].

In a second study conducted to verify stress tendencies among English speakers of Russian, Hart (1994) developed a test of Russian dialogues and paragraphs of various

difficulties and administered it to intermediate and advanced students of Russian from six American universities. The results were not surprising – incorrect stress placement made in multi-syllabic Russian words by American students were found to closely match English stress patterns for words the students did not know (Hart 1994: 279). This study illustrated that students do not simply guess randomly about where the stress in an unknown Russian word should fall; rather, they base their judgments on English stress rules.

Like word stress, intonation is also responsible for facilitating or impeding whether L-2 speech is intelligible to native speakers. With its rising and falling contours, intonation indicates which part of the information is new versus known, salient versus less salient or topic versus comment, and makes connected stretches of speech coherent and interpretable by the listener. Dirven & Oakeshott-Taylor (1984: 333) expressed their opinion of the importance of intonation, saying, "To interfere with stress, timing, fundamental frequency [and other aspects of prosodic continuity in discourse] usually has more drastic consequences for comprehension than removing the cues of a particular [phonological] segment." According to Chun (1988: 297), intonation plays a greater role in intelligibility than other types of linguistic inaccuracies. Some of the problems that native speakers of any language have in understanding non-native speakers are possibly in the realm of "wrong" (or "foreign") intonation in sentences and *not* in the non-native like speech production of word stress or pronunciation.

Intonation consists of highly habitual patterns of which L-1 speakers are not consciously aware and operates at a subconscious level, resulting in the transferring of native-speech patterns into the L-2. Very often L-2 speakers simply do not realize that

certain aspects of their native intonation may be regarded as offensive when they are speaking an L-2. For example, Gumprez (1982: 173) described how recently hired Indian and Pakistani cafeteria staff working at a British airport were perceived as "surly and uncooperative" purely on the basis of their intonation patterns. When offering gravy they would say the word "gravy" with a falling tone instead of a rising tone normally adopted by L-1 speakers of English when making offers of this type. This was interpreted by the cargo handlers they served as a statement of fact, and thus indicative of indifference rather than a polite offer.

Van Els and De Bot (1987), who had nine Dutch and nine foreign women (three English, three French and three Turkish) read a story in Dutch, also sought to learn whether L-1 intonation is audible in L-2 speech. In particular, they had ten experienced listeners indicate whether the speaker's L-1 was Dutch. The researchers discovered that the judges correctly identified the Dutch native versus non-native speakers 94 percent of the time. Van Els and De Bot therefore concluded that aspects of L-1 intonation do indeed transfer to the L-2 and a foreign accent shows in a foreign language speaker's intonation (154).

A third type of super-segmental that researchers have investigated is speech rate, which has led to intriguing conclusions about the correlation between speech rate and comprehension, and speech rate and audibility of non-native accents. Regarding non-native speaker L-2 comprehension and rapid speech rate, Flowerdew and Miller's (1992) research determined that L-1 Cantonese speakers were unanimous in rating speed of delivery as the greatest obstacle to understanding lectures in English. Researchers have also discovered, however, that comprehension may be equally difficult for native

speakers when listening to non-natives speak “before learners have gained adequate control of the L-2 phonology system” (Schairer 1992: 317). For advanced-level L-2 speakers who use slower speech a different picture emerges, as native speakers do not have difficulty comprehending them (317).

Slower does indeed seem to be better when the issue at hand is comprehension, as Anderson-Hsieh and Koehler’s (1988) findings illustrate. In particular, they confirmed that on passages read by both natives and non-natives, comprehension scores were significantly higher when the passages were read at slower rates, thus leading them to conclude that slower rates enhance comprehension. Likewise, Aronson (1964: 310) raises a valid point against L-1 speakers of English escalating their speech rate in Russian. In so doing, he thinks, they may apply English patterns to Russian words. For instance, instead of pronouncing *голова* [head] as [galəva], by increasing their speech rate English L-1 speakers may eliminate the middle vowel, thus saying [galva]. Aronson offers a second example with *давать* [to give], which, he contests, English speakers may shorten to [dvat’]. Factors such as these make it likely that an increase in fluency may in some cases result in decreased, rather than increased, intelligibility of non-native speech.

When the focus shifts to ease of identifying non-native pronunciation and speech rate, it seems that L-2 speakers should *not* be encouraged to speak slowly if they want their foreign pronunciation to be less audible. Munro and Derwing (1998) found that L-1 Mandarin learners of English were considered more non-native when asked to speak their L-2 more slowly. A later study by Munro and Derwing (2001) revealed that non-native speech needed only slight speeding-up to be perceived as less foreign. Based on these

findings, it would seem that L-2 learners should strive to increase their speech rate and in this way make their speech closer to the native model.

1.1.3 Syllable structure

Syllable structure makes up a third dimension of phonology that has an effect on the pronunciation of L-2 speech. According to Tarone (1980), Anderson (1983), Broselow, (1983, 1984), Sato (1984) and Karimi (1987), the incorrect production of syllable structure involves the addition of a segment or syllable, the deletion of a segment or syllable, or the recording of segments in syllables, such as consonant deletion or vowel insertion.

It cannot be argued that syllable structure, like segmentals and super-segmentals, also plays a crucial role in how learners identify and produce L-2 sounds. The transfer of syllable structure rules from the L-1 to the L-2 may cause pronunciation inaccuracies, such as when learners insert epenthetic vowels into L-2 syllable clusters in order to force target language structures to conform to native language rules (Hongyang 2007: 35). Such a process is known as *epenthesis*. If, for example, learners must produce segmental units such as Consonant+Consonant+Vowel (CCV) or CVCC, which do not exist in the L-1, the non-native speaker may break up these units with a neutral vowel /schwa/, thus making the patterns easier to pronounce but still preserving the base form.

Examples of epenthesis, in particular the tendency to insert a vowel between the first two consonants of an English cluster, have been documented extensively among L-2 speakers of English with L-1's of Arabic, Vietnamese, Turkish, Persian and Hindi. Broselow (1983: 269), in her study of epenthesis and L-1 speakers of Arabic, found that

speakers of Egyptian Arabic inserted an [i] between the first and second consonants of an initial two-consonant cluster, which resulted in them pronouncing *floor* as [filoor] and *translate* as [tiransilet]. Similarly, Sato (1984), in her study of L-1 transfer by Vietnamese speakers of L-2 English, pointed out that the learners in his study were found to have more difficulty with initial as opposed to final clusters due to the fact that Vietnamese allows final but not initial clusters.

L-1 English speakers of Russian may also use epenthesis in order to break-up clusters that do not coincide with normal English segmental units. Kozhevnikov and Chistovich (1965) speculate that American students learning Russian may have a tendency to pronounce *письмо* [letter] as /pis-i-mo/ and *мгновение* [instant] as /mygno-ven'e/, with the reason lying in the different types of consonant clusters permitted in English and Russian. In American English, there are more consonant clusters word-finally than word-initially. Russian, however, has more (and more complex) clusters initially than finally (Aronson 1964: 317). Such attempts to convert Russian sounds into American-English patterns could result in unintelligibility for native Russian speakers.

In attempt to modify word-final consonants to which they are unaccustomed, L-2 learners may also use deletion. Suenobo et al. (1992) determined that, not surprisingly, deletion by Japanese speakers of English was found to cause the highest rate of unintelligibility by English native-speaker listeners. How and where it occurred in words also played a part in native-speaker overall comprehension. In particular, when it occurred in isolation and in word final position it had a slightly less serious effect than when it occurred in word-initial position where it was far more likely to cause a comprehension problem. Researchers such as Weinberger (1987) have suggested that

deletion is most common among beginning L-2 learners, but as their proficiency increases they rely less on deletion and more on epenthesis. In order to help students develop phonetically accurate speech from the beginning, it seems preferable to discourage both beginning and proficient learners from using either deletion or epenthesis when they encounter new consonant clusters.

Learners may also avoid blending sounds across word boundaries, thus resulting in yet another example of non-native like production of syllable structures. If an L-1 English speaker is asked to read a sentence such as "Give a student a book," s/he will not pronounce each word and phoneme separately, but instead will blend the sounds together to produce "GI-VA-STUDENA-BOOK." Tarone (1972) stresses that L-2 speakers, however, may avoid such blending in order to maintain the separateness of each language unit and even try to preserve it by inserting neutral vowels such as /ə/ between the word boundaries.

1.1.4 Voice settings

Different types of articulatory characteristics are specific to every language. Speakers have a tendency to adopt certain positions of articulation in speech, resulting in a characteristic voice quality, which can be described in terms of voice-setting features. Such features comprise what are referred to as voice quality, voice quality settings (Esling & Wong: 1983) or phonetic settings (Laver: 1980). Examples of such features, according to Laver (1980: 2) are keeping the lips in a rounded position throughout speech, as is typical for L-1 German speakers, speaking with a closed jaw, spread lips and palatalized tongue position, as do L-1 Russian speakers, or using a "whispery" type of

phonation, as is heard in French. L-1 learners may inadvertently transfer these voice-setting features into the L-2, which contributes to their pronunciation and overall intelligibility of their speech.

1.2 Lexical, Grammatical and Socio-Linguistic Factors

Lexical, grammatical, and socio-linguistic variables also affect the comprehension of L-2 speech by native speakers. In particular, incorrectly structured phrases as well as incorrectly chosen words in the L-2 may interfere with comprehension of non-native speech. For example, a native English speaker would certainly be confused by the incorrectly formed phrase "I dropped my eyes," instead of "I put drops in my eyes," just as a native Russian speaker would have difficulty comprehending *Мой брат работает как профессор* [My brother works like a professor] due to the incorrect use of the word *как* [like] in this sentence.

Grammatical accuracy or lack thereof in the L-2 is another variable that affects native speaker comprehension. The inability of L-2 students of Russian to correctly use such elements of Russian grammar as aspect, case endings and prefixes can also lead to native speaker incomprehension. A student who says, for example, *Я обчистил холодильник* [I cleaned out, i.e. robbed, the refrigerator] instead of *Я почистил холодильник* [I cleaned the refrigerator], will confuse a native Russian speaker.

Advanced- and superior-level L-2 speakers are the ones most likely to produce non-native syntax and, although such inaccuracies may not lead to incomprehension, they do alert the listener that the interlocutor is not a native speaker. An example is if a L-2

Russian speaker says *Я люблю кушать* [I love to eat] as the verb *кушать* [eat] is avoided when speaking about oneself for the stylistically pompous air it conveys.

Formality of task and transfer of L-1 socio-linguistic variation to L-2 may affect pronunciation in the L-2. Research has shown that learners clearly think that certain tasks in the L-2 call for more formal pronunciation of certain sounds than others. Gatbonton (1978) and Wenk (1979, 1982) showed that the more formal the speech style (e.g. minimal pair reading as opposed to free speech), the greater the number of target-like realizations of /ɵ/ and /ð/ by L-2 French speakers. Sato (1985) noted a strong proportion of target-like realizations of English word-final consonant clusters by an L-1 Vietnamese speaker as the task shifted from free conversation to the imitation of words and phrases. Laferriere (1979: 607) revealed that even L-1 speech style may differ depending on the formality of the situation. In particular, he noted that the more formal the speech style, the greater the tendency for ethnic Irish and Jewish speakers in the Boston area to pronounce /o/ instead of /ɒ/, its dialectal variant, as they associate the former as being more closely connected with standard English.

Socio-linguistic variation in the L-1 also affects how learners pronounce sounds in the L-2. Beebe (1974: 384) elaborated on the case of L-1 Thai speakers of English who pronounce final position English /r/ more accurately in word lists than initial position /r/, of which their accuracy rate was only nine percent. The reason for this difference in pronunciation accuracy, she ascertained, is due to interference from Thai. In particular, the pronunciation of initial position /r/ in that language has a conscious, learned social meaning, with speakers using variants of that sound depending on the formality of the situation. Final position /r/, however, does not exist in Thai except in loanwords, and thus

it has no social value. Thus, she surmised that her subjects, who regarded listing data in L-2 English as a formal context, used different variants of initial /r/, which resulted in their low accuracy pronunciation rate. On the other hand, the subjects didn't attach any L-1 value to final position /r/ and pronounced it as closely to the L-2 target as possible. Beebe's study clearly indicates that where there is strong social value attached to certain aspects of the L-1 phonology learners may inadvertently regard the L-2 pronunciation similarly.

1.3 Other Variables That Affect Listener Comprehension of L-2 Speakers

While it is necessary to consider which phonetic elements affect L-2 speaker intelligibility, it is equally important to investigate which variables may facilitate or hamper L-2 speaker intelligibility and comprehensibility for native speakers. To this end, three variables will be explored: context, familiarity (with foreign accents, the individual speaker and his/her voice, and the topic) and the language proficiency of the L-2 speaker.

One cannot ignore the significant role that context plays in increasing intelligibility. Chastain (1980: 212) hypothesized that "the more completely understood the context and the universe of discourse, the more likely the native speaker will be to grasp the non-native's intent." Indeed, a message can be 12 to 14 times more intelligible when a context is supplied (Fry 1955:15). Based on their discourse data from L-1 Dutch learners of English, Albrechtsen, Henriksen and Faerch (1980: 390) provide supporting evidence that context aids in the interpretation of incorrectly used content words. In one instance a learner claimed, "In 1933 the boys and girls get together in one corpse but, er, mostly there are girl troops or scouts and boy scouts." Despite the incorrect use of

"corpse" instead of "corps," the subjects understood the message thanks to context words such as "scout organization" and "patrol." In research done by Suenobu, Kanzaki and Yamane (1992: 148) with L-1 Japanese speakers of English, they, like Fry, Albrechtsen, Henriksen and Faerch, also determined that context plays a significant role in increasing comprehensibility. In particular, they determined that the rate of understanding for words out of context was 41.6 percent, while the rate of understanding for words in context was 66.48 percent, which translates into a 25 percent increase in correct understanding. This finding supports the concept that even words with phonetically similar and interchangeable alternatives are understandable when their meaning can be inferred from the context.

Alternatively, Albrechtsen, Henriksen and Faerch (1980: 390) revealed that a lack of contextual support impedes listener comprehension. In their aforementioned study of Dutch learners of English, a learner used the paraphrase "things that, er, comes, er, every week," for the expression "television serial." The interlocutor, lacking a context for the meaning of "things," could not comprehend the message. However, had she heard the word "program" or "show," the meaning would have been clear.

Just as comprehensibility can be increased when a context is supplied, so it may also improve when the interlocutor is familiar with the topic being discussed and the L-2 proficiency of non-native speakers. Intelligibility, on the other hand, may be improved when the interlocutor is familiar with foreign accents, the individual speaking and his/her voice. These variables will now be considered in more detail.

For both native and non-native speakers, understanding accents takes time and patience. Due to the fact that the intelligibility of utterances is ongoing, it improves over

time as speakers become more familiar with the pronunciation and accent to which they are unaccustomed. Trask (2000:1) reiterates this point with an anecdote. He stated, "In my case (as an American), the first time I met a vernacular speaker from the English city of Newcastle-Upon-Tyne, I could not understand a single word he was saying, and I was not even sure he was speaking English. But after a few days my ears adjusted and I could understand everything he said, apart from the odd, unfamiliar words." A key element, then, in understanding speech is one's level of experience listening to it. Indeed, researchers such as Brodkey (1972), Smith and Rafiqzad (1979) and Smith and Bisazza (1982) all agree that the more familiar native speakers are with non-native pronunciation the better they can comprehend L-2 speech. Interestingly, however, Eisenstein and Verdi (1985) found that a negative attitude toward the speaker of a particular variety of English will tend to decrease intelligibility in spite of the listener's familiarity with that variety.

In summary, the literature on L-2 comprehension demonstrates clearly that different types of listeners can be shown to react differently to non-native pronunciation. Research demonstrates that it is clearly not sufficient to limit the study of L-2 comprehension to L-2 speech production alone. L-2 speech reception, and the factors affecting it, are also an important part of the communication equation. For example, within a formal instructional context the L-1 teacher-listener reacts to non-normative L-2 speech with a variety of correction behaviors. Some language trainers may correct L-2 speech well beyond the requirements of basic comprehension or even advanced-level comprehension. This "perfectionist" stance, as exhibited by some language teachers engaged in training activity, is opposed to a broad range of native listeners, including

some teachers, who generally avoid correction in all but the most extreme cases of potential mis-understanding or total unintelligibility. For non-expert native listeners, the salience value of non-nativelike L-2 speech resides along the middle portions of a continuum between the perfectionist and the non-interventionist stances just noted. In fact, non-expert native speakers typically neither correct non-normative speech, nor even register it as non-normative. The following portion of the literature review addresses the state of research on L-2 speech reception.

1.4 Interlocutor-Based Factors: The Reception and Uptake of L-2 Speech

Prior exposure to the speech habits of an individual L-2 speaker, or L-2 speech group, can significantly ease the ability of L-1 listeners to understand that individual. Similarly, familiarity with a specific speaker's voice can also affect intelligibility in a positive way. Brodkey (1972) used dictation to measure intelligibility by having L-1 English, Spanish, Vietnamese and Indian speaking lecturers record a lecture or an interview. Thereafter, L-1 English and Spanish/English bilingual students listened to the tapes and wrote down what they heard. Brodkey's results demonstrated that knowing the voice of the speaker aided comprehensibility more than simply being familiar with the speaker's accent-type. Thus, those subjects who had listened to the instructors previously scored higher than those who had not.

Beyond voice familiarity, familiarity with the subject matter addressed in L-2 speech can similarly affect native speaker comprehension. To address the larger issue of L-2 speech reception, Gass and Varonis (1984) investigated whether familiarity with topic, non-native speech in general, a non-native accent in particular, or a particular L-2

speaker contributed most to listener comprehension. The researchers had two L-1 Japanese and Arabic speakers read a story in English, and L-1 English speakers then listened to the readings and answered questions about them. Based on the differences in comprehension by learners of pre- and post-text readings, Gass and Varonis determined that familiarity with the topic of discourse facilitates comprehension more than familiarity with non-native speech in general, non-native pronunciation, or a particular non-native speaker.

An L-2 speaker's proficiency level also plays a role in native speaker comprehension. As is often the case, beginning-level language students have more difficulty accurately pronouncing words and producing correct grammar in the L-2 than do more proficient learners. Therefore, one may assume that a Level 1 speaker's pronunciation will play a critical role in native speaker comprehension. This hypothesis was verified when the Research Committee of the Interagency Language Roundtable (Higgs and Clifford: 1983) asked fifty foreign-language teachers from the CIA Language School to rate the importance of vocabulary, grammar, pronunciation and fluency for each proficiency level on its Hypothetical Model of Relative Contributions. The instructors judged pronunciation as the most important factor at Level 1 with its importance tapering off thereafter and not rebounding at the upper levels. Such a finding suggests that native speaker comprehension of beginning-level L-2 speakers can be greatly aided when those learners use correct pronunciation.

Various subjective factors, such as prejudice and predisposition, also influence the degree to which L-1 listeners are able to comprehend the pronunciation of non-native speakers. A native speaker who, for one reason or another, regards members of a non-

native-speaking ethnic group negatively may, in turn, judge the L-2 speech of such individuals as incomprehensible. On the other hand, an individual who holds the members of a different ethnic group in high regard may claim that their L-2 pronunciation not only does not impede comprehension, but also sounds very pleasant.

1.5 Predicting Errors

Before elaborating on sources of L-2 errors, it is necessary to define "error" and distinguish between "error" and "mistake." Lightbound (2005: 79) defined "error" as "a form or structure in the learner's production, which is identifiable as being deviant, to a greater or lesser extent, in comparison to a native speaker or a fluent user of the L-2 attempting to say the same in an identical, or similar, linguistic and communicative context." According to Corder (1981), errors differ from mistakes in that mistakes are unsystematic and are of no significance to the process of language learning; even native speakers may make them. They occur due to memory lapses, slips of the tongue, tiredness, etc, and do not show that there is a defect in the language that has been learned. Unlike mistakes, errors *are* systematic, Corder argued, and indicate that the L-2 learner has incomplete knowledge of a target language structure. Some causes of learner errors derive from L-1 influence and transfer, the perceived language distance between the L-1 and L-2, borrowing from the L-1 or other languages, and avoidance.

1.5.1 L-1 Influence and Transfer

L-1 influence and transfer is a very significant source of non-normative speech production. Odlin (1989: 27) defines language transfer as "… the influence resulting

from similarities and differences between the target language and any other language that has been previously (and perhaps imperfectly) acquired." Transfer may be of two types – positive and negative. In positive transfer, phonology, syntax and lexicon in the L-2 that resemble those variables in the L-1 will be easily learned by simple transfer. In negative transfer, however, the linguistic elements that differ from those in the L-1 will be the most difficult for L-2 learners. Nevertheless, it is incorrect, according to Wode (1980: 136), to automatically assume that all instances of negative transfer are due to L-1 influence. In the acquisition of English /r/ by German-speaking children he found evidence that "only certain L-2 elements are substituted by L-1 elements, namely, those meeting specifiable similarity requirements… Those elements that do not… are acquired via developmental sequences similar to L-1 acquisition."

When considering the amount of transfer that occurs in L-2 production, it is important to remember that non-native speakers move through three stages when learning an L-2 (Archibald 1998: 174). In Stage One the L-1 setting governs understanding and production. In Stage Two the L-2 setting governs comprehensibility, but the L-1 setting governs production. In Stage Three the L-2 setting governs production and understanding. Thus, one may presume that transfer will occur most significantly at Stage One, gradually taper off at Stage Two, and occur very seldom at Stage Three. However, even at Stage Three, that is, the highest stage of language production, a learner may still possess a foreign accent in the L-2. Flege (1981: 443) asserts that this is "the consequence of the establishment of stable phonological representations for sounds and words in the native language." L-1 phonological transfer, therefore, causes learners to

perceive sounds in the L-2 as being phonologically identical to those in the L-1, which results in inaccurate L-2 pronunciation.

Which aspects of language are most susceptible to L-1 transfer? Ellis (1994: 62) contends that transfer errors are more frequent on the phonological and lexical levels. Ioup (1984: 13) even went so far as to claim that "transfer is the major influence on interlanguage phonology." Richards (1974), Dulay and Burt (1974) support this argument by maintaining that transfer is a factor only in the acquisition of phonological features such as syllable structure and vowels. Hecht & Melford (1982), Johansson (1973), Macken & Ferguson, (1981) and Tarone (1980) argue that the concept of transfer extends beyond the limits of individual phonemes to include syllable structure as well as prosodic and voice-setting features. Resyllabification of syllables was observed in Broselow's (1984) research done on L-1 English speakers learning Arabic. Specifically, he found that the students restructured syllables in Arabic to conform to English conditions and rules. Hecht and Mulford (1982) also determined that transfer occurs with vowels. Based on their study of an L-1 Icelandic-speaking child learning English, these researchers determined that transfer processes predominate in the rendering of L-2 vowels.

L-1 transfer can also occur with grammar, vocabulary, style, word order and syntax. Regarding transfer of grammar, vocabulary and style, Green and Hecht (1985) separated instances of non-native-like production into different categories in order to investigate their level of interference in L-2 speech. They determined that grammar was used incorrectly 69 percent of the time, vocabulary - 26 percent and style - 5 percent. Dushkova (1969) found that incorrect use of word order and syntax were often due to L-1 influence, while non-normative use of morphology is least affected by the learner's L-1.

1.5.2 Perceived Similarity Between L-1 and L-2

L-2 speech may also be incorrect depending on the degree to which learners perceive the L-1 and L-2 to be phonologically similar. Such interference is common in human learning, according to Brown (1980: 159) who asserted, "Transfer is greater when items to be learned are more similar to existing items than when items are entirely new and unrelated to existing items." Therefore, L-2 features that have similar counterparts in the learner's L-1 will be hard to learn because the learner will automatically and unconsciously analyze them as identical. However, the learner will tend to be conscious of L-2 features that are very different from the L-1, and as a result, make a greater effort to overcome L-1 interference and pronounce the L-2 variant as correctly as possible.

Researchers and linguists have analyzed L-1 interference and transfer and arrived at similar conclusions. One such example involved experienced and inexperienced German speakers of English. Bohn and Flege (1992) found that the experienced speakers did not produce /i, ɛ/ (i.e. vowels similar to those in English) more accurately than inexperienced speakers. On the other hand, the experienced speakers produced the "new" vowel /æ/ closer to the native-speaker variant than did the inexperienced speakers. Another instance involved L-1 Brazilian Portuguese speakers of English who were asked to produce /æ/. Major (1981, 1985) determined that, due to the absence of the English vowel /æ/ but the existence of /ɛ/ in the L-1, beginning students typically substitute Portuguese /ɛ/ for both English /ɛ/ and /æ/. Advanced students, on the other hand, often master the new /æ/ sound, but continue to substitute an L-1 vowel that is similar to English /ɛ/. Thus, Major surmised that these learners immediately notice that Portuguese has no /æ/ sound, resulting in their attempts to pronounce it as correctly as possible.

However, since they are unable to distinguish the difference between the /ɛ/ vowel sounds in the two languages, they pronounce it incorrectly in the L-2.

A similar analogy of interference can be found in the speech of L-1 English speakers of beginning Russian. Learners at this level can mistakenly think the /ш/ sound in Russian is the same as the English /sh/, thus causing them to pronounce /ш/ in *широкий* [wide] just as they would /sh/ in *shoes*. On the other hand, they are aware of the difference in pronunciation between Russian and English /r/ because this sound is trilled in Russian, unlike in English, in which it is produced deep in the throat without any part of the tongue touching the mouth.

1.5.3 Analyzing Non-Native-Like Production

In order to better understand incorrect L-2 production by learners, one must analyze possible reasons for the occurrence of incorrect use of lexicon, grammar or morphology. According to Brooks (1964: 58), three reasons are: 1) the student may make a random response, that is, s/he may simply not know which of many responses is the right one; 2) the student may have encountered the model but not have practiced it a sufficient number of times; 3) the student may have made a response that follows a sound general rule but is incorrect because of an anomaly in the new language. Additionally, non-normative speech production may be attributed to student laziness, a lack of interest in the subject, an incapacity to learn using the instructor's teaching method, inadequate teaching materials, or the teacher's inability to present the material in a clear and concise manner. Regardless of the reason for the incorrect form, however, Olsson (1972) asserts that non-native like L-2 production should not be seen as something to be avoided

because “we may look upon errors as a necessary ingredient in second language learning. The implication is that the learner progresses while testing and remodeling hypotheses about the linguistic materials s/he is handling.”

When examining non-native like production on a general level, incorrectly produced forms are considered as either careless errors in speech production or errors in incomplete mastery of the language system. Tomiyama (1980: 72), referring to learners of English, asserted that errors in incomplete mastery of the language systems violate rules involving the overall structure of a sentence, are typically located within clauses or longer stretches of discourse, may be multiple in number, and most often involve connectors, relative pronouns, tense, word choice or word order. On the other hand, careless errors in speech production are found within a specific clause and involve a specific item such as articles, verb and noun agreement, etc. Another important difference between these two types of non-native speech production is who makes them. The speech of second language learners, for example, may contain incorrectly used linguistic forms due to an incomplete mastery of the language system, while the speech of L-1 learners is free of such inaccuracies. However, both first and second language learners are capable of making careless errors in speech production (Schumann and Stenson 1974).

Which type of non-native speech production has been found to impact the most on the comprehensibility of L-2 speakers? Burt collected errors in adult discourse made by several thousand English learners from all over the world. She learned that sentences with non-native linguistic forms had incorrect word order such as, “English language use many people,” contained missing, wrong, or misplaced sentence connectors such as, “He will be rich until he marry,” and unobserved restrictions on certain lexical items. (Burt

1975: 56-57). Sentences with careless errors in speech production, however, contained non-native speech forms in noun and verb inflections, articles, auxiliaries and the formation of quantifiers. Based on the results of her research, Burt determined that errors in incomplete mastery of the language system affect the overall organization of the sentence and hinder successful communication because they cause the listener or reader to misinterpret the speaker or writer's message. Careless errors in speech production, on the other hand, only affect a single element of the sentence and, thus, do not hinder communication.

A study conducted by Tomiyana (1980: 71) supports Burt's findings that errors in incomplete mastery of the language system cause greater problems in comprehension than careless errors in speech production. After having native English speakers correct articles and sentence-connectors used by ESL students, Tomiyana determined that her subjects judged connectors, i.e. errors in incomplete mastery of the language system, more negatively than incorrect article usage, i.e. careless errors in speech production, due to the increased demand on their processing ability to understand the intentions of the L-2 speaker.

Stenstrom's (1975) findings on global versus careless errors in speech production and comprehensibility correspond to those of Burt and Tomiyana. Specifically, he investigated the reactions of four L-1 English speakers to 316 grammatically incorrect sentences produced by Swedish teaching trainees and found that 251 sentences with careless errors in speech production, such as incorrect verb forms, incorrect article usage and subject-verb agreement were rated as less serious than those sentences that contained errors in incomplete mastery of the language system.

However, at least one study has determined that careless errors in speech production play a greater role in comprehensibility than errors in incomplete mastery of the language system. In research conducted with L-1 speakers of English who were asked to rank the acceptability of L-2 oral discourse, Browning (1982) learned that both trained and untrained L-1 English-speaker judges of natural non-native speech samples regarded local grammatical errors as less acceptable than errors in overall incomplete mastery of the language system. Nevertheless, it is difficult to explain why Browning's findings appear to contradict those of his predecessors without first knowing more about the proficiency levels of his subjects.

Incorrect use of lexicon has also been found to play a significant role in native-speaker comprehension of L-2 speech. In his analyses of word and word combinations and their effect on comprehension, Bacon (Wallace 1978: 109) noted that "the ill and unfit choice of words wonderfully obstructs meaning." Although different languages have been used to research the affect of incorrect vocabulary usage on listener comprehension, the results have been strikingly similar. Chastain (1980: 212), using 35 Spanish sentences containing non-native like production by students, had 48 L-1 Spanish speakers in Madrid rate each non-normative speech form as "comprehensible and acceptable," "comprehensible but not acceptable," or "incomprehensible." He concluded that comprehension was most severely limited by word usage, the use of a wrong word or the addition or omission of words. Moreover, the use of word forms played a much less significant role in the communicative process than the correct use of the words themselves. Chastain explained the reason for this finding by the fact that native speakers can supply correct word forms much more easily than they can actual words.

In research done to determine the reactions of L-1 German speakers to six non-normative speech forms used by native English speakers, Politzer (1978) also found that incorrect vocabulary usage caused the most interference, ranking first before incorrectly used verb morphology, word order, gender confusion, phonology or case ending forms.

After asking 20 L-2 English-speaking subjects to record two conversations with their NS friends, Chun, Day, Chenoweth and Luppescu (1982: 542) analyzed the non-normative speech production of L-2 speakers and classified the forms produced as incorrect use of discourse, vocabulary or word choice, syntax or omission. L-1 English speakers then listened to the recordings and noted the forms that impeded comprehension the most. Of all the incorrectly produced forms, the researchers discovered that incorrect use of word choice and vocabulary were corrected the most, or 15 percent of the time.

How do the evaluations of non-normative L-2 forms differ between teachers and non-teachers, native and non-native speakers? Researchers who have compared the reactions of teachers and non-teachers to non-native-like L-2 production found that teachers are more critical than non-teachers. In one study 39 L-1 Japanese teachers and 41 L-1 Japanese non-teachers compared the grammar, fluency, appropriateness, vocabulary, comprehensibility and pronunciation of four L-2 elementary Japanese speakers. Okamura (1995: 29) confirmed that the teachers judged the non-normative speech forms more unfavorably than did the non-teachers. Schairer's (1992: 311) research findings with 28 teachers and non-teachers of Spanish correlate with those of Okamura, as the teachers in Schairer's study were also more critical in their evaluation of the comprehensibility of L-2 taped speech samples than the non-teachers. Researchers such as James (1977), Santos (1987) and Porte (1999) claim this dissimilarity in teacher

and non-teacher attitude to L-2 speech is due to the difference each group places on separate linguistic elements. Teachers, for example, pay much attention to the forms and structures of the discourse, at the same time judging their acceptability in each utterance. Native speaking teachers, on the other hand, look more closely at comprehensibility and tend to be more lenient in their critique of L-2 speech.

When investigating the reactions of non-native teachers and native non-teachers to non-normative linguistic forms, Galloway (1980: 430) and Ervin (1979: 333) both concur that native speakers who do not teach their L-1 are more tolerant of incorrect L-2 speech than are teachers. Galloway, for example, concluded that, compared to non-native teachers, native Spanish-speaking non-teachers are more tolerant and exert more empathy toward students who struggle with that language. In addition, she found that the group of non-teaching native Spanish speakers living in the US showed less concern for correct pronunciation by the students and more tolerance for overall communicative performance than did the non-native and native Spanish teachers and the non-teaching native speakers living in Spain. Hughes and Lascaratou (1982: 179) claim that native-speaking non-teachers are so tolerant of non-normative speech production because these individuals are "linguistically naïve," and, thus, less likely than teachers to focus on inaccuracies in L-2 speech. Like Galloway, Ervin (1979: 333) also discovered that non-teaching, native Russian speakers demonstrated the most "tendency toward leniency" in rating students of mid- and higher-level communicative proficiency. However, unlike Okamura and Schairer, he found that non-native speaking Russian teachers were the most lenient when rating subjects.

1.6 What Is Accent and What Causes It?

Whenever second language learners begin to speak, accent is one factor that determines whether their speech is comprehensible to the listener. What is meant by "accent" and its role in communication? Before answering these questions, it is necessary to make the distinction between L-1 and L-2 accent. A local/regional accent or L-1 accent is characterized by pronunciation differences that identify the speaker's geographical background, socio-economic class, ethnic identity or educational level (Hongyan 2007: 10). Every L-1 speaker has some kind of accent. Foreign or L-2 accent, however, is the result of the speaker substituting phonemes and/or allophones of the native language (L-1) for sounds that are needed in the L-2 (Hongyan 2007: 10). Such speech sounds differ from those produced by native speakers.

Accent is a manner of pronunciation that differs from standard speech, although the grammatical, syntactical and lexical levels are consistent with the standard (Giles and Powesland 1975) and is made up of phonological cues, either segmental or super-segmental, which identify the speaker as a non-native user of the language (Scovel 1969: 38). Jenner (1976: 167) takes this definition one step further, calling accent a "complex of interlingual or idiosynractic phonological, prosodic and paralinguistic systems, which characterize a speaker of a foreign language as non-native." What causes non-native speakers to have an accent in the L-2? According to researchers, several reasons exist. Scovel (1981: 37) claims that after the critical period the brain loses its plasticity, which results in a "loss of flexibility in the programming of neuromuscular coordination mechanisms." Although it may seem unusual that the critical period affects pronunciation and not other linguistic elements, such as grammar or syntax, Scovel (1988: 101) insists

this is because “pronunciation is the only aspect of language performance that has a neuromuscular basis, requires neuromotor involvement and has a physical reality.”

Van Els and De Bot (1987) put forth yet another explanation why the vast majority of adults are unable to speak without an accent in the L-2. In particular, they state that adults have lost the ability to listen to speech sounds in isolation, but rather concentrate only on the “higher” semantic levels, as they have learned to do in their L-1, in which the “lower” level phonological activities have, for the most part, been automatized (148).

Different researchers have identified different variables that predict accented speech. Purcell and Suter (1980), for example, determined that L-1, aptitude for oral mimicry, length of time in the L-2 environment and strength for pronunciation accuracy all affect the strength of an L-2 speaker’s accent.

Mispronunciation of segments, as when L-2 speakers of English say, “I sink so,” or “I put my car in the barking lot,” is certainly one variable that contributes to intelligibility of accent. According to the results of a study by Brennan, Ryan and Dawson (1975: 32), the frequency of segmental substitutions in short excerpts of speech produced by L-2 speakers was highly correlated with judgments of accentedness by L-1 speakers. However, segmentals alone do not determine the perceived strength of an L-2 speaker’s accent. Instead, Flege (1981: 445) claims, L-1 listeners are more likely to base a judgment of foreign accent on some combination of segmental, subsegmental and super-segmental differences.

Even though the odds seem stacked against adult L-2 learners ever speaking without an accent, Klein (1995) and Krashen (1973) insist that accurate pronunciation by

L-2 learners depends, in large part, on a combination of factors such as L-2 input and motivation. Klein (1995) insisted that although massive and continued access to L-2 input is necessary, by itself it is not sufficient for native-like pronunciation; rather, it must be combined with motivation. He insisted that only if learners have sufficient access to L-2 input and they think sounding like a native speaker of the L-2 is very important can they attain a native-like accent, despite learning the foreign language after the critical period has ended. Krashen (1973) also shares this opinion and maintains that the pronunciation accuracy of L-2 learners depends largely on the degree of concern they have for their accent; that is, how motivated they are to sound like native speakers of the L-2.

1.6.1 Accent, Comprehension and Intelligibility

The connection between intelligibility, comprehension and accent has been investigated at length. Munro and Derwing (1995a, 1995b) and Derwing and Munro (1997) found that the intelligibility scores given to L-2 Cantonese, Japanese, Polish and Spanish speakers by L-1 English speakers were higher than comprehensibility scores, which were both higher than accent scores. From these data results, the researchers determined that non-native speech may be highly intelligible even if the speaker has a strong foreign accent. Thus, foreign accent alone is not necessarily a good predictor of intelligibility.

The degree to which L-1 and L-2 listeners are familiar with a particular accent, among other things, has been found to greatly influence their intelligibility of native and non-native speech (Derwing and Munro 1997: 3) Gass and Varonis (1984) determined that L-2 accents were more intelligible to L-1 speakers who were familiar with them,

while Tauroza and Luk (1997) found that L-2 speakers were better able to comprehend accents with which they were familiar. Smith and Bisazza (1982) worked with L-2 speakers and had them listen to varieties of English spoken by American, Indian and Japanese speakers. The researchers learned that, although their participants understood the L-1 English speaker, this did not mean they could automatically understand the accents of the non-native L-2 speakers.

Another variable that strongly influences listening comprehension is native and non-native speaker stereotypes toward a particular accent. Pihko (1997) learned Finnish ESL learners, for instance, accepted native-accented varieties of English as authentic, while perceiving non-native L-2 English accented speech as "strange English." It also seems possible that L-1 speakers who hold prejudices against or look down upon a certain country, its citizens or the particular way they speak the L-2 may also have difficulty understanding L-2 accented speakers from that area.

Speech rate and accent also affect native-speaker comprehension of non-native speech. In Anderson-Hsieh and Koehler's (1988: 561) study, three native speakers of Chinese and one native English speaker read passages at three different speaking rates. The recorded passages were then played to L-1 American English speakers who took a listening comprehension test and rated the speech samples. Anderson-Hsieh and Koehler (1988) found that the increase in speaking rate from regular to fast resulted in a greater decrease in comprehension of the most heavily accented speaker. Thus, they concluded that a slower speaking rate is very important for listener comprehension of heavily-accented speech.

1.6.2 L-1 Speaker Stereotypes of Different Ethnic Groups Based on Accent

Undoubtedly, any non-native speaker would like to believe Ortego's (1970: 77) opinion that "an accent is merely a dialect…Linguistic science has pointed out that we all speak differently, that we all speak with a dialect of some kind or another." Nevertheless, the general finding in the literature is that, not only are non-native accents downgraded, albeit for some ethnic groups more than others (Anisfeld, Bogo & Lambert 1962) (Mulac et al. 1974) (Samarin & Kalmar 1979) but, in some cases, they simply reinforce preconceived stereotypes that native speakers have about L-2 speakers. Entwiele (1970), for example, claims that after just 10-15 second of listening to L-2 speech native speakers can make an assessment about the speaker based on the accent or dialect spoken. Clearly, when gauging the non-native speaker's command of the L-2, native speakers consider not only *how much* the person says, but how much of a *foreign accent* that individual has.

Speaker accent type is connected to listener stereotypes about specific ethnic groups. According to Ryan, Hewstone and Giles (1984) speakers of "high" or powerful speech styles are rated highly on traits related to intelligence and social status, while speakers of "low" or powerless speech styles are regarded as uneducated, unintelligent and relatively poor (Ryan 1983: 155). However, when speakers of "low" styles are evaluated for traits related to kindness and attractiveness, they are often rated much more favorably (Ryan, Hewstone and Giles 1984).

Studies have investigated both native speaker stereotypes due to variation within an accent type, and non-native speaker L-2 accent. Studies done in Britain on stereotypes within accent types have established that overriding prestige is attributed to Received Pronunciation (RP) over regional and lower class accents. A study by Giles (1970)

compared status ratings of 13 UK accents and determined that the highest ratings were given to RP, while urban varieties received the lowest ratings. In a study done to compare evaluative reactions by northern and southern English listeners to Yorkshire and London accents, Strongman and Woolsey (1967) found significant variation among reactions by listeners. In particular, the London accent produced relatively high ratings of speaker self-confidence, while the Yorkshire accent enhanced ratings of speaker honestly, reliability, and generosity. The northern judges also gave high ratings to the Yorkshire speakers for good-naturedness, kind-heartedness, and industriousness. Cheyne (1970) compared the reactions of Scottish and English listeners to differences in Scottish and English accents and concluded that both groups of listeners gave relatively high ratings to the English accent for prestige, status and intelligence, while the Scottish accent was rated more highly for friendliness and likeability. Research has also been done in the US to evaluate how northern and southern listeners react to accent variation among black and white speakers (Tucker and Lambert 1969) (Buck 1968).

Researchers have determined that the ethnicity of non-native speakers also influences how L-1 speakers evaluate different types of accents. Seggie (1982) investigated personality judgments made by Anglo-Australians of L-1 Italian speakers in English and found that the same male speaker was evaluated as good-natured but lazy and ineffective with a General Australian English accent, incompetent but friendly with Liverpool-accented English and incompetent, unsure, somewhat unattractive but highly sociable when he spoke with Italian-accented speech. Ethnicity and accent have also been studied in the US using Spanish and German speakers. In research done with stereotypes

and social class, Ryan's (1983: 154) both middle- and lower-class listeners downgraded speakers with Spanish accents but not individuals with German-accented English.

Listener stereotypes about one accent as more preferable than another in certain social settings plays yet another role in their evaluation of non-native speech. A University of Michigan study (Ayala and Bell 1995) sought to learn whether undergraduates rated the same nine non-native speakers differently based on unlike circumstances. Listeners in one group were told to assess the accents of different speakers on a video tape as if they were International Teaching Assistants (ITAs) delivering a lecture in a math class. Listeners in another group, however, were told to assess the accents they heard as if the speakers were people the listeners had just met and with whom they were engaging in friendly conversation. Curiously, the subjects in the first group scored the speakers much lower than those in the second one.

1.7 Factors Accounting for Variation in L-2 Speaker Accents

1.7.1 Innate Learner Qualities

First and foremost, it is necessary to ask which factors limit learner phonetic accuracy when speaking an L-2. Moreover, some learners have a more noticeable foreign accent than others. What causes such variation in L-2 accent? Both the type of accent produced by a non-native speaker and its similarity to the L-1 norm depend on a range of variables that differ for each individual. Innate learner qualities certainly account for much variation in how well learners mastery an L-2 accent. Such qualities include:

aptitude, personality, gender, differences between adult and child phonetic ability, L-1 ego permeability/empathy, oral/auditory capabilities and pitch.

Language aptitude, or the ability to mimic sounds, has been cited as a contributing factor in one's ability to develop an accurate L-2 accent. Purcell and Suter (1980) found aptitude for oral mimicry to be the second most important determinant of pronunciation accuracy. In Skehan's Bristol Follow-Up Study (1986b) he studied 128 children in the first few years of life, and then re-tested these same children 10 years later when they had begun learning an L-2 in school. His findings revealed a connection between first language development and aptitude for other languages. In addition, he learned that, although language aptitude is a stable trait in individuals, it is also influenced by experience. In other words, both nature and nurture determine language learning aptitude.

Personality is defined as "those aspects of an individual's behavior, attitudes, beliefs, thoughts, actions and feelings which are seen as typical and distinctive of that person and recognized as such by him/her and others" (Richards, Platt and Platt 1998: 41). Personality is also a determinant of degree of accent. Variables connected to personality, such as self-esteem, risk-taking, anxiety and extroversion affect the rate at which a language is learned and the ultimate level of achievement (Keyes 2002: 78). Foreign language learners who feel anxious and think that their incorrect pronunciation will cause ridicule or mockery by native speakers are unlikely to take risks and try and improve it. On the other hand, those individuals who have low anxiety and are willing to take risks are more likely to keep working in order to improve their accent. Additionally, learners who are extroverted are more likely than introverts to seek opportunities to practice the L-2 and in so doing also improve their pronunciation.

The gender of the L-2 learner has been found to indirectly constitute a constraint on the variety of L-2 speech learned. In an experiment with male and female subjects and accuracy of accent, Weiss (1970) found that the L-2 pronunciation by the females was closer to the L-1 variant than that of the male subjects. In addition, a study by Gussenhoven (1979) showed that female learners were more favorably disposed toward learning and using a "prestige accent" in the L-2 than males. The researcher explained this finding by claiming that it is perhaps due to women's stronger orientation toward prestige speech in the L-1, which carries over into their learning of other languages.

Obviously, age is a strong determinant in explaining the strength of a speaker's accent in the L-2. However, is it fair to claim that children have more ability than adults to pronounce sounds accent-free in a foreign language? Can adults ever develop an L-2 accent that is as correct as that produced by children? Existing empirical evidence does not support the notion that there is a true difference in how well children, as opposed to adults, learn foreign languages. Researchers such as Valette (1964) claim that a foreign accent can sometimes be detected in children, while Williams (1980) and Neufeld (1980) assert that some adults appear capable of producing foreign speech without an accent. Moreover, adults have indeed been found to excel over children in certain aspects of L-2 pronunciation. Snow and Hoefnagel-Hohle (1978), for example, determined that older children and adults may be, at least initially, more successful than young children in accurately pronouncing an L-2 accent. Other studies indicate that older children and adults can imitate words in an unfamiliar foreign language better than young children. Additionally, imitation skills may actually improve with age (Politzer and Weiss 1969). Pronunciation of a foreign language by both adolescents and adults will also improve

with exposure (Asher and Garcia 1969). Thus, when speaking about the difference between adult and child phonetic ability, it is important to remember that adults are indeed capable of acquiring very accurate L-2 pronunciation, but, unlike children, only with hard work and a conscious effort.

Differences in L-2 accents have also been explained in terms of empathy (Guiora, Brannon and Dull 1972) (Taylor, Catford, Guiora and Lane 1971) and ego permeability (Guiora et al. 1975). In a study done with empathy and L-2 pronunciation, Guiora, Brannon and Dull (1972) found that learners of Japanese who were more empathic (i.e. saw more changes in facial expressions in a film clip) sounded more authentically Japanese than those who were less empathic. Ego permeability (also known as "flexible ego boundaries" or "language ego states") has also been found to affect L-2 pronunciation achievement. Guiora (1972: 427) considered an individual with "high ego permeability" as someone who is able to relax and change their personality when speaking a foreign language, while someone with "low ego permeability" has difficulty relaxing and changing their personality when speaking another language.

Several studies were conducted to learn whether ego permeability is correlated to L-2 accent. Schumann, Holroyd, Campbell and Ward (1978) showed that deeply hypnotized subjects performed significantly better on pronunciation tasks than less well hypnotized subjects, which the researchers took as evidence for an "ego permeability" hypothesis, i.e. the deeply hypnotized subjects were less inhibited about speaking the L-2. In Guoira's et al.'s alcohol study (1972), he chose to test ego permeability by having some of his subjects drink one, two or three ounces of alcohol, or none at all. Afterward, he tested their Thai pronunciation and accent accuracy. The results revealed that those

individuals who had no alcohol did not change their pronunciation, those subjects who had one or two ounces improved slightly, while those who had three ounces had worse pronunciation. Guiora interpreted these results to mean that the alcohol was not connected with lowering ego boundaries. Rather, he claimed, foreign language learners must address fundamental issues about themselves and their level of inhibition to successfully mimic the L-2 accent and develop an alter ego when speaking an L-2.

Individual variations in oral and auditory capabilities also contribute to the ability of learners to accurately produce an L-2 accent. Each learner has different capabilities for adjusting the configurations and movements of the lips and tongue, and the degree that one can correctly do this will influence the strength or weakness of a foreign accent. Locke (1968, 1969) showed that individuals differ in their capacity for accurate understanding of spatial configurations within the mouth (also known as "oral stereognosis") and offered evidence of a correlation between correct oral stereognosis and the ability to correctly learn and pronounce L-2 sounds. With regard to auditory capabilities, Helmke and Wu (1980) argued that the accuracy of L-2 accent mastery achieved by learners may correspond to their individual abilities in auditory discrimination. Researchers such as Schneidermann and Wesche (1983) have established a connection between right- or left-brain hemisphere processing and L-2 phonetic accuracy. In part, they found that the more a learner's L-2 processing is concentrated in the right hemisphere, the better the learner can detect differences in sounds.

Researchers have begun to investigate the possibility that the ability to learn to imitate an accent in the L-2 may be related to the ability to discriminate pitch. In Dexter's (1934) study of high school students learning French, he wanted to examine

whether IQ or pitch discrimination was more important to correctly learn an L-2 accent. He found that comparatively low IQ accompanied by good pitch discrimination helps learners to accurately produce a foreign accent, while low IQ accompanied by low ability to discriminate pitch does not lead to phonetic success in the L-2.

1.7.2 Qualities Dependent on Attitude of Individual L-2 Speaker

What is one reason why two foreign language speakers with the same degree of linguistic ability who begin learning an L-2 under identical conditions may ultimately achieve very different levels of proficiency? The answer is due, in large part, to whether the learner possesses integrative or instrumental motivation. I begin by examining the role that integrative motivation plays in ultimate L-2 learner proficiency.

1.7.3 Integrative Motivation

According to Archibald (1998: 16), integrative motivation is connected with wanting to learn an L-2 in order to learn more about a particular culture or fit into it better. Gardner and Lambert (1959) hypothesized that ultimate L-2 achievement is dependent upon the same type of motivation that was necessary in order to learn the L-1 – namely, the desire to become a member of a language community. An individual who finds Russian culture fascinating, for example, may want to learn the Russian language. Similarly, a foreigner who lives in Russia and does not want to be considered an outsider will be guided by integrative motivation to learn to speak Russian. Researchers such as Ramage (1990) have found that the role culture plays in the motivational level of students to a language cannot be ignored. He maintains, for example, that an interest in the L-2

culture can influence whether students want to continue or stop learning a L-2. In Gardner's (1968: 149) opinion, an interest in a foreign culture, combined with a desire to become one with native speakers of the L-2, is a recipe for linguistic success. He also contends that it is the truly successful student (i.e. the one who will acquire communicational facility in the L-2) who is motivated to become integrated with the target community.

While it is true that a desire to integrate into a particular culture is not enough for a learner to automatically produce very accurate L-2 speech, strength of motivation has been shown to correlate with phonological attainment, particularly for professional orientations for L-2 learning (Moyer 2004: 40). Klein (1995) suggests that a native-like accent may be attainable for late L-2 learners, provided it is of vital importance for them to sound like native speakers and if they have continued access to massive, authentic L-2 input. A study by Bongaerts (1999) determined that late learners *can* indeed develop native-like pronunciation in the L-2. For his research, 11 highly successful and very advanced L-1 Dutch learners recorded several phrases in English, which were judged by native British English speakers. Five L-1 Dutch speakers were later rated as having native-like pronunciation in English. Bongaerts (1999: 154) concluded that these late-learners were able to achieve such success in their English pronunciation because they were all highly motivated individuals who reported that it was very important for them to speak English without a Dutch accent.

Learners who have a strong degree of integrative motivation may also be guided by their attitude toward the L-2 culture and their desire to stay in the country where the L-2 is spoken. Spolsky (1969), Schumann (1975, 1978) and Brown (1980) claim that a

determinant of success at all levels of second language mastery is the learner's attitude toward the society and culture of the people who speak the L-2. In research done with immigrants to Germany, Moyer (2004: 135) determined that their attitude and sense of belonging in the L-2 culture were closely tied to motivation, which, Moyer hypothesized, may actually exert the greatest influence on the social and cognitive strategies used by language learners to enhance L-2 input and fluency. In the same study, Moyer also discovered that desire to reside in the host country was significantly linked to both motivational intensity and strategies taken to improve non-native pronunciation. He thus concluded that a learner who decides to permanently stay in a host country must improve his/her pronunciation in order to increase comprehension and fully function in it.

1.7.4 Instrumental Motivation

Unlike integrative motivation, instrumental motivation involves wanting to learn a foreign language for a specific goal or reason, such as needing to pass a language requirement for college credit or to get a job with a government agency (Archibald 1998: 16). When individuals are taking language classes to fill a credit or receive a job, one can guess that achieving accurate pronunciation and sounding like a native would be of little or no importance, as the chances are slim that the learner will continue studying the language in the future. In order to learn whether increasing student instrumental motivation is correlated to increased L-2 proficiency, Dunkel (1948) offered to pay monetary bonuses to certain groups of students for unusually high achievement on language tests. He paid all of his subjects at an hourly rate, and offered certain subjects additional money should they achieve exceptionally high scores on language tests in

Persian. Dunkel later found that the differences among the various groups were as expected – the bonus-incentive group had scores that were somewhat higher than the non-bonus groups.

1.7.5 Identity

The desire or lack thereof that L-2 speakers experience for adopting a foreign accent may also be due to sociological reasons. Speaking a foreign language is, after all, much more than simply using different words – it is also deeply connected to identity because when learners are asked to change the way they sound, they are asked to change *themselves*. In essence, to speak a second language is to take on a new identity. Like motivation, identity is specific to each particular learner, always changing depending on one's interlocutor and situation, and critical to ultimate L-2 attainment. Guiora (1992) claimed that because pronunciation performance is controlled by the affective ego, which protects the self, foreign speakers are subjected to a "domain of insecurity" that interferes with their sense of identity.

A foreign accent can be used by sojourners as a way to assert their foreign identity, thereby rationalizing their linguistic and cultural faux pas and L-2 incomprehension. Ervin-Tripp (1969) mentioned that language learners might try to preserve their native accent in the L-2 in order to protect themselves from the consequences of sociolinguistic mistakes. Seemingly, as long as one is recognized as a non-native learner, failure to modify register, select the proper forms of address, or behave appropriately could all be attributed to one's ignorance of the language and culture, rather than to sheer stupidity or rudeness. In three studies with Spanish- and

German-accented English, researchers found that native speakers do indeed overlook the impolite behavior of accented speakers (Ryan & Bulik 1982) (Ryan, Sebastian, Grillot and Kennedy 1980). Respondents heard a tape-recorded conversation in which the target speaker behaved in a neutral manner or violated a sociolinguistic norm. The sociolinguistic violations (i.e. failure to say "Hello" when initiating a telephone conversation and interrupting another speaker) were selected on the basis that they were viewed as highly impolite, occurred among native speakers, and could be attributed to cultural differences. The researchers found a moderate amount of evidence for the hypothesis that an accent can protect a speaker from the full consequences of impolite behavior. Moreover, a foreign accent also guards against native speakers mistakenly thinking the non-native is fluent in the L-2 because when one uses halting, accented speech natives immediately adjust their speech to make it slow, clear and understandable.

The opinion that native speakers have about foreign accents may vary depending on different circumstances. In situations where languages compete (i.e. in multilingual communities), for example, second language speakers may be more favorably regarded based on the degree to which their accent conforms to the native norms of the hearer (Brennan and Brennan 1981). In other circumstances, however, a learner who succeeds in acquiring an accent that is considered "very good" may elicit an unwelcome response from natives. Bailey (1978) explained this phenomenon in terms of the low status of "phony-correctness," and the expectation among native speakers that the foreign speaker's pronunciation should be somewhat incorrect in order to reflect his or her "outsider" role (Clyne 1981).

Giles et al. (1995) focused on prestige and ethnic minority accented speakers in Southern California to learn in what ways national identity interacts with speaker's accent and positions on the English-only-Movement (EoM). To conduct this research, they had Anglo-undergraduates who initially favored the EoM listen to the anti-EoM message, while those who initially opposed the EoM listened to the pro-EoM message. In addition, the participants heard the message delivered either with an Anglo or Hispanic accent.

The results of this study showed that the respondents who listened to the Anglo-accented speaker showed a significant attitude change from pre- to post-test. However, only when the source speaker argued *against* EoM he was successful in reducing support for that issue. Arguments *in favor* of EoM left the attitudes of the participants unchanged (Giles et al. 1995: 114). The respondents who listened to the Hispanic-accented speaker also showed attitudinal change depending on whether they heard a pro- or anti-EoM message. Curiously, the Hispanic-accented speaker who argued *in favor* of the issue produced significant attitude change among the listeners, while those who argued *against* EoM produced no attitude change (Giles et al. 1995: 115). It is worth highlighting that, in both cases, the speakers were not influential when they produced messages considered matching with their social group membership. Based on these findings, the researchers concluded that, as far as influence on listener opinions is concerned, speech patterns and accent have a very potent, probably underappreciated and perhaps even stronger role than stereotypes.

1.8 Intelligibility and Comprehensibility Testing

1.8.1 Research Findings on Hierarchies of L-2 Error Gravity

Different researchers have sought to determine which types of non-normative speech forms produced by L-2 speakers complicate L-1 listener comprehensibility. Based on their findings, it is clear that the non-native-like forms occurred due to incorrect grammar, phonology or lexical use. I begin by examining the conclusions researchers have made that incorrect grammar usage causes the most negative reactions among native speakers.

In a study of the attitudes that L-1 French listeners have toward non-native-like production by American L-2 French speakers, Ensz (1978) determined that native speakers of French are more sensitive to incorrect grammatical usage than to incorrect use of phonology or vocabulary. On the other hand, Guntermann (1978) and Olsson (1972) came to a different conclusion. Although Olsson worked with L-1 Swedish speakers learning English and Guntermann researched the effects of non-normative speech in Spanish, both individuals found that incorrect L-2 grammar usage was not a source of serious impediment for native speaker comprehension. In particular, Olsson reported that her L-1 English listeners comprehended 75 percent of the sentences that contained non-native-like forms (24). Likewise, Guntermann, who had L-1 Spanish speakers listen to tape-recorded non-normative speech samples from L-1 English speakers of Spanish, discovered that the native Spanish speakers understood grammatically incorrect statements even without a situational context. Instead, Guntermann ascertained, sentences that contained multiple sources of non-native-like

production were the most often miscomprehended (in 32 percent of the cases), followed by incorrect usage of substitutions (27 percent) and omissions (14 percent) (251)

Although researchers may have different opinions regarding whether or not native speakers consider incorrect grammatical usage as greatly effecting comprehension, several individuals have come to agree that one particular element of grammar plays a key role in comprehension – namely, word order.

In her research with L-1 English speakers learning French, Piazza (1980) had L-1 French speakers listen to language samples and rate any examples of non-native-like speech production they heard that caused incomprehensibility and negative listener reactions. Based on the results of her study, she determined that, although native speakers did not consider non-native word order to be very distracting, it can, nevertheless, severely jeopardize comprehension. Similarly, in their work with native speaker comprehension of non-native speech, Burt and Kiparsky (1972) learned that incorrect word order hinders native speaker comprehension more than the incorrect use of determiners or quantifiers by learners (Dulay, Burt and Krashen, 1982: 190).

Researchers have also looked at native speaker attitudes toward non-native pronunciation. In research done to determine the ability of non-native English speakers to comprehend one another, Jenkins (2000) revealed that out of a total of 40 samples, 27 of the communication breakdowns she noted among the non-natives were due to incorrect pronunciation. This finding led her to rank “pronunciation” as the leading cause of breakdown in her study, followed by “lexis,” “grammar,” “world knowledge” and “ambiguous” (84). Thus, in her opinion, the transfer of L-1 pronunciation into the L-2

results in more instances of incomprehension on the part of the listener than other types of non-normative speech.

Other studies have focused on determining which particular aspect(s) of pronunciation causes the most frustration for interlocutors. Bansal (1969), Dimitrijevic and Djordjevic (1971) and Browning (1974, 1982), for example, found suprasegmental deviations to cause greater frustration than phonemic deviations. Fayer and Krasinski (1987) established that word-by-word delivery, i.e. the failure to make consonant linkage, may be distracting and result in the interlocutor losing his or her train of thought. Moreover, they also ascertained that hesitations appear to distract more from the message than does non-standard grammar. However, research undertaken by Gynan (1985) to learn about the attitudes of US bilinguals and Spanish-speaking learners of English toward native and non-native speech samples revealed that incorrect use of morphology is more salient than phonology in the speech of beginning second language learners. At the intermediate level, Gynan found that no non-normative speech forms of any kind, either phonological or morphosyntactic, are salient (164). Therefore, he concluded that an error hierarchy that gives more importance to morphosyntax than to phonology is valid for beginning L-2 students.

Still other research has determined that neither non-normative grammatical, nor pronunciation forms most impede interlocutor comprehension. Instead, researchers such as Nickel (1973), Chastain (1980), James (1977), Johansson (1978) and Dordick (1996) found that non-native like lexical forms were more crucial for native-speaker message comprehension. Politzer (1978) arrived at similar results from his research with native German speakers and their ability to comprehend non-native speech. Specifically, he

discovered that native speakers found non-normative lexical forms more important than those of grammar or pronunciation for comprehension of non-native speech, thereby giving additional credence to the necessity of providing students with a strong lexical base in the L-2.

1.8.2 Types of Tests Conducted to Determine L-1 Speaker Intelligibility and Comprehensibility of L-2 Accents

What is the most effective way to test whether L-2 speakers are intelligible and comprehensible to native speakers? Although researchers may have different answers to this question, no one seems to disagree that the method(s) a researcher uses to test intelligibility and comprehensibility will depend on the objectives of the study. Kenworthy (1987) asserts that the easiest way to assess the intelligibility and comprehensibility of L-2 speakers is to simply ask someone to listen to the non-native speech samples and then judge how difficult it is to understand them. She claims that such impressionistic and subjective assessments are both accurate and dependable. In order to ease assessment of intelligibility and comprehensibility, however, she argues that spontaneous speech be used because it reflects what is heard in the "outside world" (Kenworthy 1987: 20).

Hongyang takes a more objective stance on the subject of intelligibility and comprehensibility testing, asserting that either opinion or functional testing can be used. Opinion tests ask the listener to subjectively rate a stretch of speech along one or many rating scales (Hongyang 2007: 25). For instance, an opinion test of intelligibility might ask the listener to assign a score to a foreign-accented utterance between "1" and "7"

along a scale of intelligibility, with "1" meaning "I think it is impossible to recognize even a single word," and "7" meaning "I think it would be very easy to recognize all the words in this utterance perfectly." Research has shown that native listeners have excellent intuitions on the relative intelligibility of (foreign-accented) speech utterances (Hongyang 2007: 25). Using opinion tests may allow researchers to rank foreign-accented utterances or speakers, but they will not provide information about the percentage of correctly recognized words. To this end, it is useful for researchers to use functional tests, which require the listener to recognize words (when the goal is to learn about intelligibility) or to grasp the meaning of sentences (when comprehension is targeted).

Researchers such as Bansal, Tiffen and Elanani employed various functional tests to analyze the intelligibility of non-native speech for L-1 speakers. In an attempt to investigate whether Indian speech is intelligible to L-1 English speakers, Bansal (1969) played recordings of connected speech, reading passages, sentences and word lists to his L-1 English listeners who were then supposed to repeat and write down what they had heard. Tiffen (1974) used a similar test but slightly varied his subject group and test method. Using recorded test material comprised of segments and super-segments in connected speech, reading passages and words and sentences, Tiffen sought to measure how intelligible Nigerian Educated English is to L-1 British English speakers. He had his native English speakers listen to the recordings and write down what they thought they had heard, as well as respond to a reading passage. Working with 15 L-2 Jordanian speakers of English, Elanani (1968) also investigated the intelligibility of non-native speech for L-1 British speakers. Specifically, he wanted to determine the linguistic

variables that caused interference in L-2 Jordanian English and examine the points at which intelligibility breakdowns occur in speech.

In a test to determine whether native-speaking German judges could correctly identify natives and non-natives, Moyer (2004: 68) had 25 non-native-speaking German immigrants participate in functional tests that consisted of four linguistic tasks. They included: 1) reading 38 words aloud in list format; 2) reading a paragraph aloud at a natural tempo; 3) using spontaneous speech, and 4) reciting a list of 10 short German sayings or proverbs.

Chapter 2

METHODOLOGY

2.0 Determining the Intelligibility and Comprehensibility of L-2 Speakers of Russian - My Research Design

My research is divided into three parts, and for each one I posed a specific research question.

Research Question I. – In the spoken language of American learners of Russian, which phonetic, lexical and syntactical aspects of their speech interfere with the intelligibility to a native speaker of Russian?

Research Question II. – In the spoken language of American learners of Russian, which phonetic, lexical and syntactical aspects of their speech interfere with the comprehensibility for a native speaker of Russian?

Research Question III. – Which strategies used by native-speaking teachers of Russian as a Second Language and Russian host families of American learners of Russian facilitate comprehensibility of learner speech?

Because of the multiple categories of native informant groups required for this study, I shall also summarize here as well how these groups were constituted in order to respond to the questions above. A total of 51 native-Russian speakers plus a 20-member ethnic Russian control group, whose speech was also rated by the 51-member informant group for comparative purposes, took part in this study. The overall group of 51 primary informant subjects were then re-configured by the researcher at different points in the study into eight different background groups (or clusters), based on their country of

residence, professional background, experience with American students and knowledge of English.

1) Residency: Russians in Russia (N = 31) and in the US (N=20). Russians in Russia live in St. Petersburg or Vladimir, Russia. Respondents in the US were born in Russia or the former Soviet Union and lived there for at least the first 17 years of their life before immigrating to America. All of these individuals have been living in the United States for at least the past five years.

2) Professional: Teachers of Russian as a Second Language (N=19) and non-teachers (N=32). The instructors teach Russian to Americans at Herzen State University in St. Petersburg or at the KORA Center of Russian Studies in Vladimir, Russia. The group of non-teachers reside in Moscow, Vladimir, or Orekhevo-Zuevo, Russia.

3) Experience with Americans: Russians who have had prior contact with Americans (N=15) and Russians who have not had prior contact with Americans (N=36). Respondents in both groups live in St. Petersburg or Vladimir, Russia. Individuals who have interacted with Americans have done so through work (e.g. as tour guides), by hosting American students or being paired with them as Russian language tutors.

4) Knowledge of English: English-speaking Russians (N=29) and non-English-speaking Russians (N=22). Participants in both groups live in Moscow, St. Petersburg or Vladimir, Russia. Most of the individuals who know English are studying it as an L-2 at universities in the aforementioned cities.

In order to respond to Research Question III above, 18 teachers of Russian as a Second Language (out of the overall cluster of 19) as well as 8 home-stay family hosts, selected from Cluster 3 above, were additionally asked to describe and comment on

effective strategies they had used to increase intelligibility and comprehensibility with the American L-2 Russian speakers they either taught or hosted in their homes. All of the home-stay family hosts live in Vladimir, Russia and have hosted American students for at least one academic semester.

In order to compare L-1 and L-2 Russian speech, a further control group, made up of 20 ethnic Russian speakers from outside the capital cities, including Russians from the former Soviet republics, was created for Part I of this study. [1] These speakers read the same text as the L-2 speakers and their speech was also evaluated by the 51 native Russian listener group.

A total of eight L-2 subjects took part in this study. All were tested at the outset using the Oral Proficiency Interviews (OPI) in order to identify two beginners, two intermediate speakers, two advanced speakers and two superior-level speakers. Subjects ranged in age from 19-45. All have an L-1 of English and live in the US. For purposes of analysis, the beginning and intermediate learners were then combined into a group called "Intro Level 1 & 2," while the advanced and superior-level speakers were combined into a second group called "Advanced Level 1 & 2."

In Part I of the study, each L-2 speaker was recorded reading a low-intermediate-level text in Russian taken from the textbook В пути. Recordings were then played for all L-1 respondents who were asked to rate and identify non-normative forms they heard speakers produce. Forms were classified as three non-technical categories: 1) sounds; 2) words; and, 3) speech (sentence structure). Respondents were asked to rate each form on

[1] I did not create a control group for Part II of my study because native speakers, unlike non-natives, do not make errors in L-1 grammar, word choice, etc. that result in incomprehension for other native listeners.

a scale of 1-3, with “1” being a frequent or highly frustrating error, “2” occurring occasionally or causing mild concern, and “3” occurring infrequently or not causing significant concern. Errors were then evaluated based according to grammatical type (i.e. sounds, words or speech/sentence), L-2 learner-level and listener group.

In Part II of the study, each L-2 speaker spontaneously spoke in Russian for no more than three minutes about the topic “My Family,” for which I provided everyone with five questions to ensure that each narration had the same basic structure. I chose the topic “My Family” not only because it can be explored at virtually any level of proficiency, but also because it applies to everyone, instead of only a select group of individuals. The five questions the students were asked to address were:

1) Кто в Вашей семье? (Who are the members of your family?);

2) Кто эти люди по профессии? (What do they do for a living?);

3) Где они живут (Where do they live?);

4) Что они любят делать, когда есть свободное время? (How do they spend their free time?);

5) Расскажите об одном смешном случае, который произошёл в Вашей семье (Tell about a funny story that happened in your family). I chose to use spontaneous speech for this task because it most clearly resembles actual speaker performance in real communication situations. With that said, however, I realize that my samples of spontaneous speech were not completely natural due to the fact that my participants were taking part in an experiment. With regard to speaker performance in certain situations, Pennington and Richards (1986: 217) asserted, “…performance conditions may inhibit access to automatic processing. In such cases, the learner may have to resort to the

domain of conscious processing and so plan and monitor speech more closely. Thus, a learner's performance may differ in the controlled and automatic modes of processing. In particular, performance may suffer when it must be consciously maintained under stressful conditions." Nevertheless, I would argue that the speech of my participants was as natural as possible due to the fact that they were asked to speak about themselves, which something they do regularly in the L-2.

I chose to use recorded L-2 speech samples in Parts I and II, instead of live speech, and to limit both the textbook reading and spontaneous speech sample to approximately three minutes in length due to researcher recommendations. Gill (1994: 352), for example, claims that by using taped messages one eliminates other cues (i.e. facial expressions, gestures, etc.) from influencing listener comprehensibility. She also advocates limiting taped messages to approximately three minutes in length because "texts must be long enough for a clear message to be developed, yet short enough for listeners to have little difficulty, due to length and complexity of the message, in recalling the information presented" (352).

After recording each of the eight speakers perform the tasks in Parts I and II, I sought native-Russian speakers who were willing to take part in my research. Participants first provided demographic information about regarding age, gender, city of residence and profession. Respondents then completed Part I of my test, in which they listened to the eight recordings of the L-2 Russian speakers read the text from В пути. After listening to each recording, they placed a check mark next to each error they had heard, and rated them on a scale of 1-3, with "1" being a frequent or highly frustrating error, "2" occurring occasionally or causing a mild concern, and "3" occurring infrequently or not

causing significant concern. The non-normative forms that each native Russian participant had to choose from were divided into three categories: 1) sounds; 2) words; and, 3) speech. Under the rubric of "sounds" the following errors were included: "swallowing" of sounds, adding of extra sounds in words, adding of "o" after prepositions, e.g. *со семьёй* [so sem'oy], substitution of one vowel for another, softening of hard consonants, hard pronunciation of *ль* [l'] and other consonants where softness was needed, incorrect pronunciation of hushers, retention of unstressed "o," retention of unstressed back vowels *аканье* [akanje], "hard" pronunciation of soft vowels, absence of soft consonants and substitution of one consonant for another. Under the rubric of "words" the following errors were included: alteration of words, pauses in words, repetition of first syllable, pronunciation of words in separate parts, and stress. The rubric of "speech" included the following categories: rate of speech, failure to pause, intonation, and monotone speech. I developed these categories with the assistance of several phonetics instructors in Russia who listened to the student readings before I began interviewing respondents, and noted the non-normative forms they heard them make. Based on the findings by these instructors, I developed three categories with the above-mentioned errors in each category.

After completing Part I participants were then engaged in Part II by first listening to the same eight L-2 Russian speakers speak spontaneously about the topic "My Family" and then answering two questions to gauge their comprehension of each recording. (It is important to note that the order of recordings played for each respondent was varied in order to control for speaker order effects.) The questions respondents answered were: 1) Were there any instances when the L-2 speech was unclear due to incorrect grammar,

incorrectly structured phrases, incorrect word choice, incorrect pronunciation or lack of lexicon? If yes, please write down several specific examples that you heard; and 2) If you answered "yes" to question Number 1, please decide what interfered most with your comprehension – incorrect grammar, incorrectly structured phrases, incorrect word choice, incorrect pronunciation or lack of lexicon? In your opinion, why did this variable complicate comprehension more than the others?

In Part III I investigated which types of strategies teachers of Russian as a Second Language and Russian host families determined had most effectively increased intelligibility and comprehensibility with American L-2 Russian speakers. The teachers were asked to think of two students – one with inadequate Russian pronunciation and another with deficient Russian grammar – and comment on the strategies they had used to aid comprehension with these learners. These instructors were also asked to describe and comment on effective strategies they had used to increase the intelligibility and comprehensibility of L-2 American speakers of Russian. Home-stay family hosts were also asked recall a specific American student who had lived with that individual or with his/her family and describe one particular instance when conversation with that student broke down due to his/her incorrect pronunciation and/or grammar. Hosts then commented on the strategies they had used to facilitate comprehension and whether they were effective or not and why.

I begin by presenting the statistical analyses of my quantitative research from Parts I and II of my study, and thereafter report on the results of my qualitative research from Part III.

Chapter 3

STATISTICAL ANALYSIS

3.0 Analyzing the Intelligibility and Comprehensibility of Non-Native Russian Speech

3.1 Sounds, Words or Elements that Interfere With L-2 Russian Speaker Intelligibility

Part I of this study addressed the question, "In the spoken language of American learners of Russian, which phonetic, lexical and syntactical aspects of their speech interfere with the intelligibility to a native speaker of Russian?" Part II posed the question, "In the spoken language of American learners of Russian, which phonetic, lexical and syntactical aspects of their speech interfere with the comprehensibility for a native speaker of Russian?" In Part III the question researched was, "Which strategies used by native-speaking teachers of Russian as a Second Language and Russian host families of American learners of Russian facilitate comprehensibility of learner speech?" For the purposes of my research, I divided my native-speaking Russian listener population into four groups, based on their experience in interactions with foreigners and their own personal knowledge of English: 1) Russians in Russia and Russians in the US; 2) Teachers and non-teachers of Russian as a Second Language; 3) Russians who have and have not had prior contact with Americans; and 4) English-speaking and non-English-speaking Russians.

My first hypothesis (Part I) is that all listeners, regardless of the category they fall into, will react negatively to both rapid and unnaturally slow L-2 Russian speech, as well

as to non-natives who fail to distinguish paired consonants in words: for example, pronouncing soft sounds with minimal or no palatalization.

My second hypothesis (Part II) is that only Russians in Russia, Russians who have not had prior contact with Americans, and Russians who do not know English will have difficulty understanding non-native speakers with both weak pronunciation and word choice. The other groups, however, are predicted to have less difficulty because of their familiarity with English speech patterns or experience working with foreigners. Additionally, I further hypothesize that insufficient lexical control by beginning-level speakers will complicate comprehension for listeners of all groups.

My third hypothesis (Part III) is that teachers of Russian as a Second Language and Russian host family hosts will vary the types of strategies used depending on the language ability of the learner.

Participants in the control group read the same text from В пути that my L-2 participants had read. Thereafter, 20 L-1 Russian speakers, some of whom reside in Russia, and some who live in the US, listened to these recordings, placed a check mark next to each non-normative form they had heard, and then rated each one on the same scale of 1-3 that had been used when rating the L-2 Russian speakers. I hypothesize that Russian L-1 speakers will produce non-standard word forms containing “okan’e” and “akan’e” that will impact on native listener intelligibility.

In order to analyze the data for Part I, I combined all of the topics in the “sounds” category (i.e. “swallowing” of sounds, adding of extra sounds in words, adding of “o” after prepositions, substitution of one vowel for another, softening of hard consonants, hard pronunciation of *ль* (l’) and other consonants where softness was needed, incorrect

pronunciation of hushers, retention of unstressed "o," retention of unstressed back vowels *аканье* (akanje), "hard" pronunciation of soft vowels, absence of soft consonants and substitution of one consonant for another) into one group, which I then labeled the "red total." In this way, I was able to produce a general total for this category. I did the same for the second rubric "words," (i.e. alteration of words, pauses in words, repetition of first syllable, pronunciation of words in separate parts, and stress), which I labeled the "green total," as well as for the third and final category "speech" (i.e. failure to pause, intonation and monotone speech), which I labeled "purple total." However, in order to avoid confusion, hereafter I refer to each category by its rubric title (i.e. "sounds," "words," "speech") instead of its color name (i.e. "red," "green," "purple").

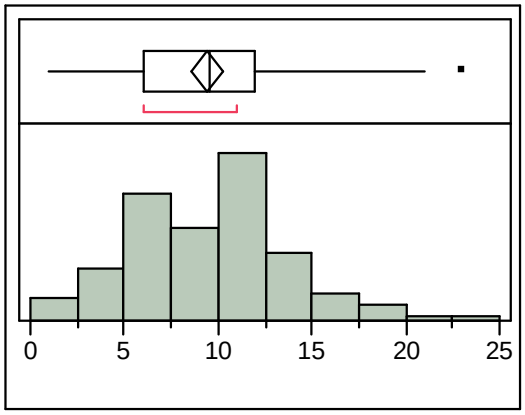
In order to answer my research questions for Part I, I used several different types of statistical procedures such as: histograms, bar graphs, box plots and mosaic plots. I begin by describing the results from histograms that illustrate how the data are distributed based on speaker level and category (i.e. "sounds," "words," "speech"). In addition, the histograms display the distribution for speaker level in correspondence with each of the four categories – "Listener Home," "Teacher/Non-Teacher," "Prior Contact with Americans" and "English Speaker Yes/No."

3.1.1 Histograms

When looking at the histogram for the "sounds" category as it relates to scores for "Listener Home" one sees that the data are symmetric for Level 1 speakers. The most error points that any of the listeners gave speakers were 23 and the minimum were 1.

Thus, the point-scale ranged from 23-1, with the middle scores stretching between 6-12. The median was 9.5.

Speaker Level =1 intro
"Sounds" by Listener Home

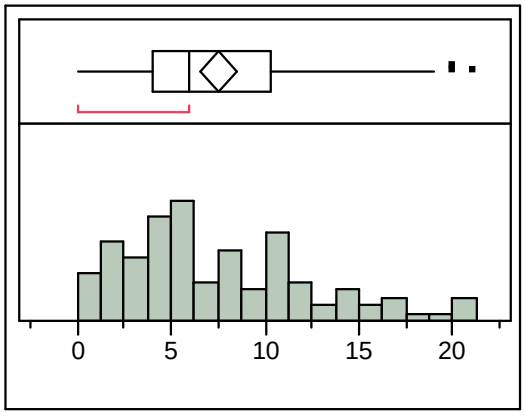


Quantiles

N		51
100.0%	maximum	23.000
99.5%		23.000
97.5%		19.275
90.0%		14.700
75.0%	quartile	12.000
50.0%	median	9.500
25.0%	quartile	6.000
10.0%		4.000
2.5%		1.575
0.5%		1.000
0.0%	minimum	1.000

The distribution of data for introductory Level 2 speakers in the "Listener Home" category is skewed to the right. The maximum number of error points that listeners gave was 21 and the minimum was 0. The middle scores ranged from 10-4, with a median of 6.

Speaker Level 2 = intro
"Sounds" by Listener Home

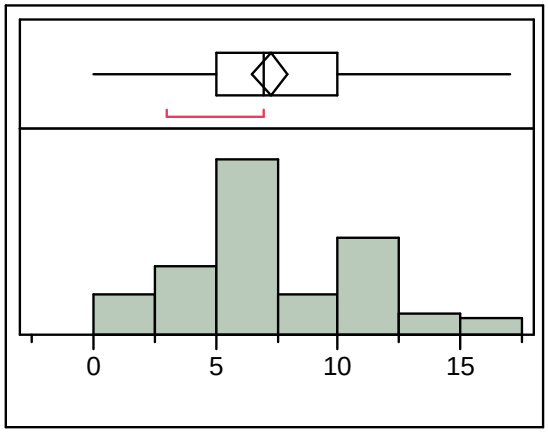


Quantiles

N		51
100.0%	maximum	21.000
99.5%		21.000
97.5%		20.000
90.0%		14.700
75.0%	quartile	10.250
50.0%	median	6.000
25.0%	quartile	4.000
10.0%		2.000
2.5%		0.575
0.5%		0.000
0.0%	minimum	0.000

One sees that the data distribution for the “sounds” category as it relates to “Listener Home” is symmetric. A maximum of 17 and a minimum of 0 error points were given. The middle scores ranged from 10-5. The median was 7.

Speaker Level 3 = advanced
“Sounds” by Listener Home

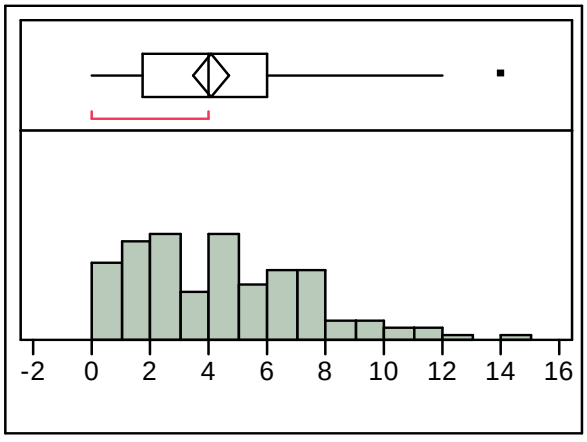


Quartiles

N		51
100.0%	maximum	17.000
99.5%		17.000
97.5%		15.450
90.0%		12.000
75.0%	quartile	10.000
50.0%	median	7.000
25.0%	quartile	5.000
10.0%		3.000
2.5%		0.550
0.5%		0.000
0.0%	minimum	0.000

Data that listeners provided after evaluating advanced Level 4 speakers are skewed to the right. The maximum number of error points that any listener in this group gave was 14 and the minimum was 0. Scores for these speakers were between 6-1.75 median of 4.

Speaker Level 4 = advanced
“Sounds” by Listener Home

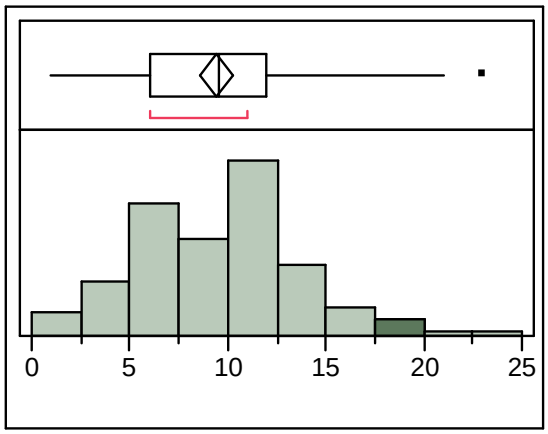


Quartiles

N		51
100.0%	maximum	14.000
99.5%		14.000
97.5%		11.425
90.0%		8.000
75.0%	quartile	6.000
50.0%	median	4.000
25.0%	quartile	1.750
10.0%		0.000
2.5%		0.000

When looking at the histogram of "sounds" as it relates to scores that were given by Level 1 speakers by teachers and non-teachers of Russian as a Second Language one sees that the data distribution is skewed to the left. The maximum number of error points that listeners gave was 23, while the fewest was 1. The middle scores were 12-6 and the median was 9.5.

Speaker Level 1 - intro
"Sounds" by Teachers/Non-Teachers of Russian



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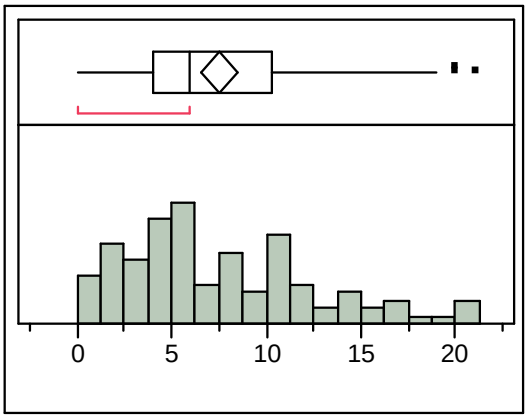
90.0%		14.700
75.0%	quartile	12.000
50.0%	median	9.500
25.0%	quartile	6.000
10.0%		4.000
2.5%		1.575
0.5%		1.000
0.0%	minimum	1.000

Data for Level 2 speakers, however, are skewed to the right. Here one sees that the maximum number of error points that listeners in the "Teachers/Non-Teachers of Russian as a Second Language" group gave was 21, while the minimum was 0. The middle scores were between 10-4, with a median of 6.

Speaker Level 2 = intro
"Sounds" by Teachers/Non-Teachers of Russian



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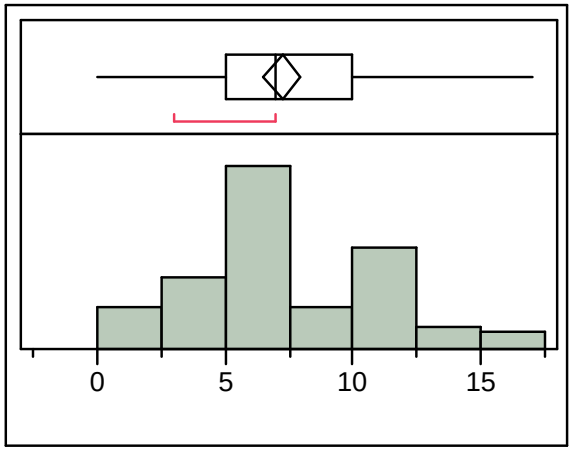
75.0%	quartile	10.250
50.0%	median	6.000
25.0%	quartile	4.000
10.0%		2.000
2.5%		0.575
0.5%		0.000
0.0%	minimum	0.000

When analyzing the symmetric data distribution for errors in "sounds" given to Level 3 speakers by teachers and non-teachers of Russian as a Second Language one sees that the maximum number of error points given was 17, while the minimum was 0. The middle scores ranged from 10-5, and the median was 7.

Speaker Level 3 = advanced
"Sounds" by Teachers/Non-Teachers
of Russian



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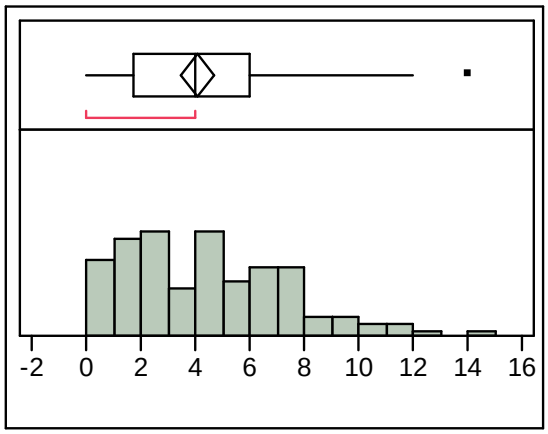
50.0%	median	7.000
25.0%	quartile	5.000
10.0%		3.000
2.5%		0.550
0.5%		0.000
0.0%	minimum	0.000

The histogram of Level 4 speaker "sounds" indicate that the data are skewed to the right. The maximum and minimum error point totals were 14 and 0, respectively. The middle range of scores was 6-1.75. The median is 4.

Speaker Level 4 = advanced
"Sounds" by Teachers/Non-Teachers
of Russian



Quantiles

N		51
100.0%	maximum	14.000
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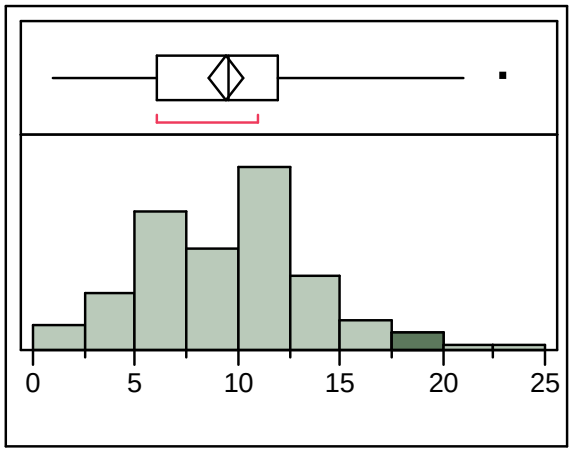
90.0%		8.000
75.0%	quartile	6.000
50.0%	median	4.000
25.0%	quartile	1.750
10.0%		0.000
2.5%		0.000
0.5%		0.000
0.0%	minimum	0.000

The “sounds” totals for Level 1 speakers as evaluated by Russians who have or have not had prior contact with Americans are skewed to the left. The maximum number of error points that any listener gave speakers was 23, while the minimum was 1. The middle scores ranged from 12-6, with a median of 9.5.

Speaker Level 1 = intro
“Sounds” by Has/Has Not Spoken to Americans

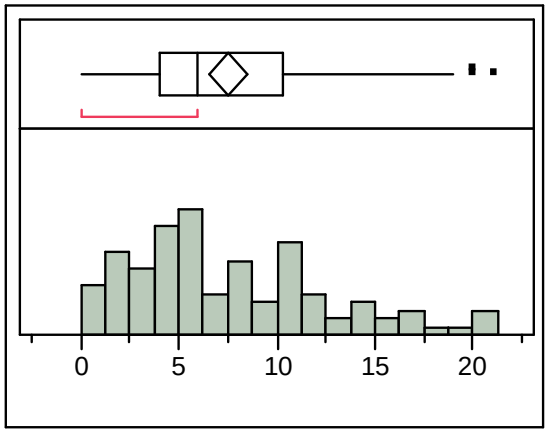


Quantiles

N		51
100.0%	maximum	23.000
99.5%		23.000
97.5%		19.275
90.0%		14.700
75.0%	quartile	12.000
50.0%	median	9.500
25.0%	quartile	6.000
10.0%		4.000
2.5%		1.575
0.5%		1.000
0.0%	minimum	1.000

According to the “sounds” histogram for Level 2 speakers, one notices that the data are skewed to the right. The maximum number of error points that any listener gave was 21, and the minimum was 0. The middle quartiles ranged from 10-4, and the median was 6.

Speaker Level 2 - intro
“Sounds” by Has/Has Not Spoken to Americans

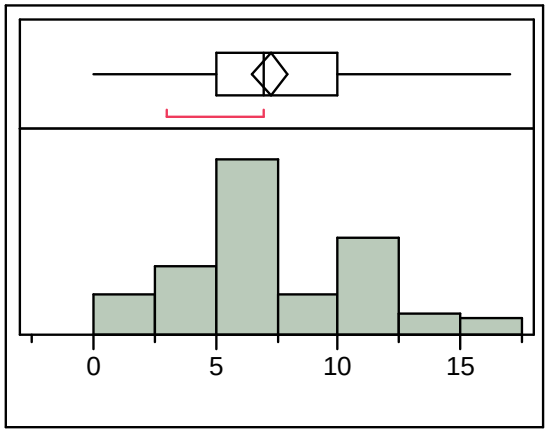


Quantiles

100.0%	maximum	21.000
99.5%		21.000
97.5%		20.000
90.0%		14.700
75.0%	quartile	10.250
50.0%	median	6.000
25.0%	quartile	4.000
10.0%		2.000
2.5%		0.575
0.5%		0.000
0.0%	minimum	0.000

The histogram of data distribution for Level 3 speakers is symmetric. Scores in this group ranged from 17-0, with median quartiles varying from 10-5. The median was 7.

Speaker Level 3 = advanced
"Sounds" by Has/Has Not Spoken to Americans

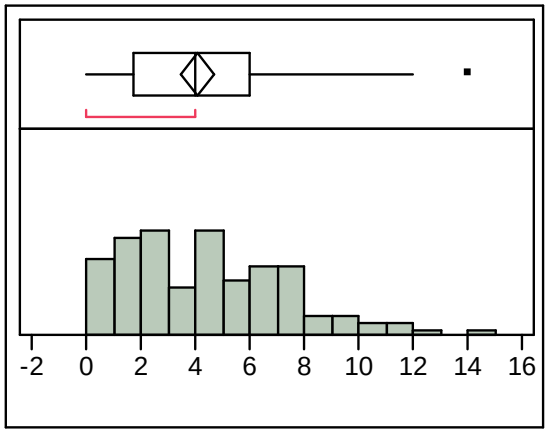


Quantiles

N		51
100.0%	maximum	17.000
99.5%		17.000
97.5%		15.450
90.0%		12.000
75.0%	quartile	10.000
50.0%	median	7.000
25.0%	quartile	5.000
10.0%		3.000
2.5%		0.550
0.5%		0.000
0.0%	minimum	0.000

The data for Level 4 speakers as evaluated by Russians who have or have not had prior contact with Americans are skewed to the right. Here one sees that the maximum number of error points that any speaker received was 14, and the minimum was 0. Scores that extended from the 75-25 percent quartile were 6 and 1.75, respectively. The median was 4.

Speaker Level 4 = advanced
"Sounds" by Has/Has Not Spoken to Americans

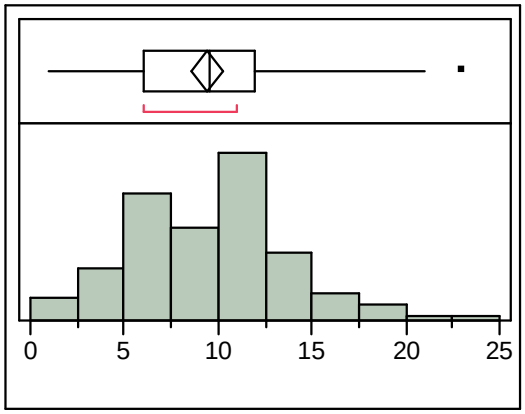


Quantiles

N		51
100.0%	maximum	14.000
99.5%		14.000
97.5%		11.425
90.0%		8.000
75.0%	quartile	6.000
50.0%	median	4.000
25.0%	quartile	1.750
10.0%		0.000
2.5%		0.000
0.5%		0.000
0.0%	minimum	0.000

The data distribution of "sounds" scores of Level 1 speakers as evaluated by English and non-English-speaking Russians is symmetric. The maximum number of error points that any listener gave was 23, while the minimum was 1. The quartile range spanned from 12-6, and the medium was 9.5.

Speaker Level 1 = intro
"Sounds" – English speakers – yes/no

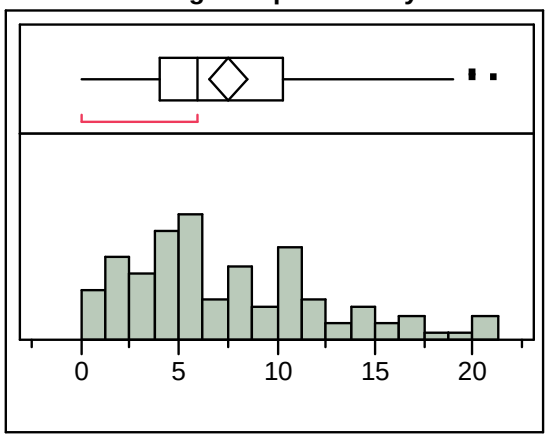


Quantiles

N		51
100.0%	maximum	23.000
99.5%		23.000
97.5%		19.275
90.0%		14.700
75.0%	quartile	12.000
50.0%	median	9.500
25.0%	quartile	6.000
10.0%		4.000
2.5%		1.575
0.5%		1.000
0.0%	minimum	1.000

The data distribution for Level 2 speakers is skewed to the right. As the quantiles indicate, the maximum error point total was 21 and the minimum total was 0. Numbers in the 75-50 percent quartiles spanned from 10-4. The median was 4.

Speaker Level 2 - intro
"Sounds" – English speakers – yes/no

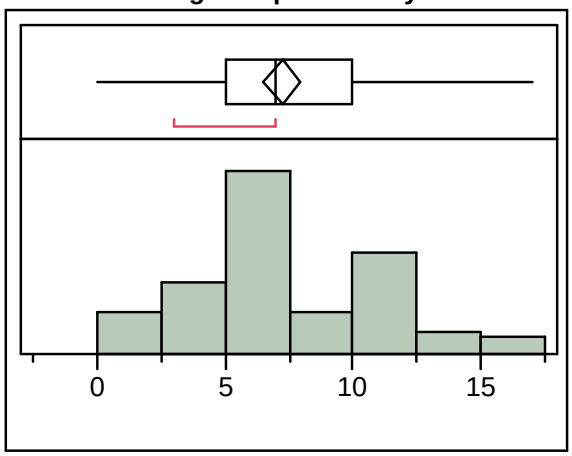


Quantiles

N		51
100.0%	maximum	21.000
99.5%		21.000
97.5%		20.000
90.0%		14.700
75.0%	quartile	10.250
50.0%	median	6.000
25.0%	quartile	4.000
10.0%		2.000
2.5%		0.575
0.5%		0.000
0.0%	minimum	0.000

The histogram for Level 3 “Scores” indicates that the data are distributed symmetrically. The maximum and minimum numbers of error points given to speakers ranged from 17-0, respectively. The middle scores ranged from 10-5, with a median of 7.

Speaker Level 3 - advanced
“Sounds” – English speakers – yes/no

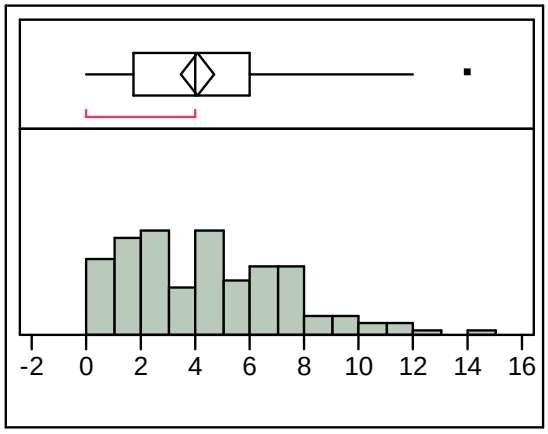


Quantiles

N		51
100.0%	maximum	17.000
99.5%		17.000
97.5%		15.450
90.0%		12.000
75.0%	quartile	10.000
50.0%	median	7.000
25.0%	quartile	5.000
10.0%		3.000
2.5%		0.550
0.5%		0.000
0.0%	minimum	0.000

Similarly to the Level 3 totals, the data distribution of Level 4 totals is also symmetric. The total number of error points that any speaker received was 14 and the minimum was 0. The medium quartiles extended from 6-1.75 and the median was 4.

Speaker Level 4 = advanced
“Sounds” – English speakers – yes/no

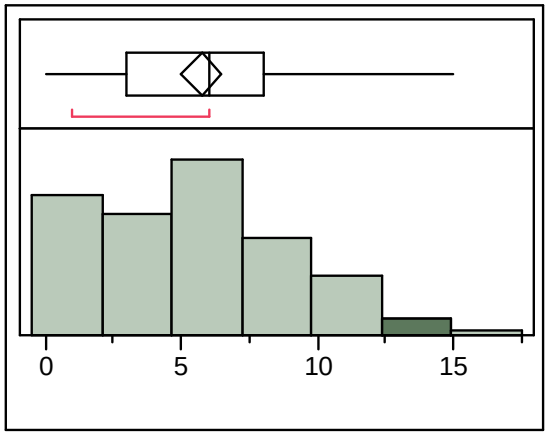


Quantiles

N		51
100.0%	maximum	14.000
99.5%		14.000
97.5%		11.425
90.0%		8.000
75.0%	quartile	6.000
50.0%	median	4.000
25.0%	quartile	1.750
10.0%		0.000
2.5%		0.000
0.5%		0.000
0.0%	minimum	0.000

The histogram for “words” as it relates to “Listener Home” is skewed to the right for Level 1 speakers. The maximum number of error points that any speaker received were 15, and the minimum number were 0. The medium quartiles spanned from 8-3, with a median of 6.

Speaker Level 1 = intro
“Words” by Listener Home

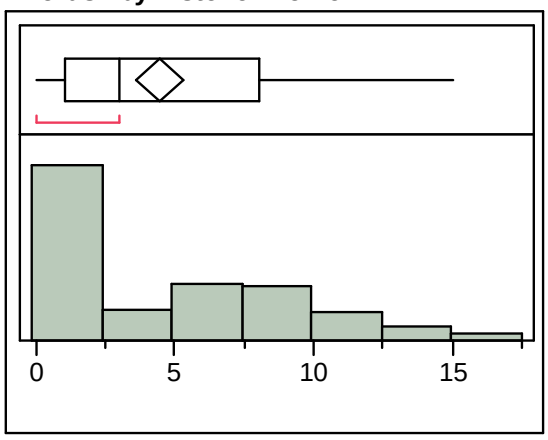


Quantiles

N		51
100.0%	maximum	15.000
99.5%		15.000
97.5%		13.425
90.0%		11.000
75.0%	quartile	8.000
50.0%	median	6.000
25.0%	quartile	3.000
10.0%		1.000
2.5%		0.000
0.5%		0.000
0.0%	minimum	0.000

The data distribution for Level 2 speakers is also skewed to the right. Here one sees that the maximum number of error points that listeners gave was 15 and the minimum was 0. The middle scores were between 8-1. The median was 3.

Speaker Level 2 = intro
“Words” by Listener Home

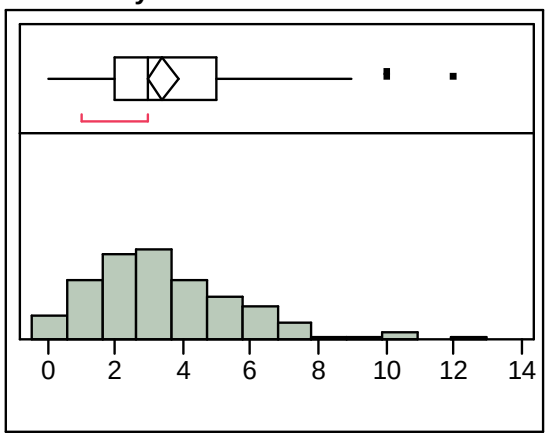


Quantiles

100.0%	maximum	15.000
99.5%		15.000
97.5%		14.425
90.0%		11.000
75.0%	quartile	8.000
50.0%	median	3.000
25.0%	quartile	1.000
10.0%		0.000
2.5%		0.000
0.5%		0.000
0.0%	minimum	0.000

The histogram for Level 3 speakers is symmetric and has maximum and minimum numbers of error points ranging from 12-0, respectively. The median quartiles span from 5-2. The median is 3.

Speaker Level 3 = advanced
"Words" by Listener Home

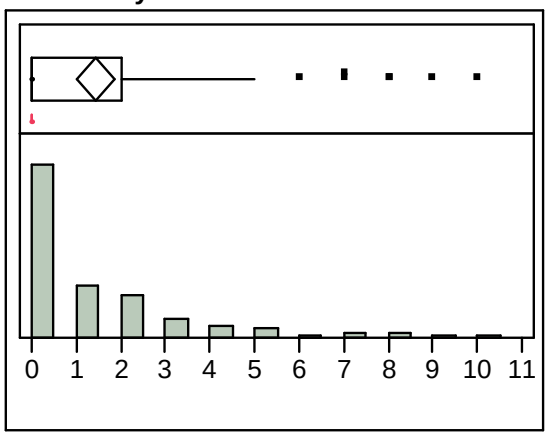


Quantiles

N		51
100.0%	maximum	12.000
99.5%		12.000
97.5%		10.000
90.0%		6.000
75.0%	quartile	5.000
50.0%	median	3.000
25.0%	quartile	2.000
10.0%		1.000
2.5%		0.000
0.5%		0.000
0.0%	minimum	0.000

According to the Level 4 histogram, one sees that it is extremely skewed to the right. The maximum number of error points that any speaker received was 10; the minimum was 0. The median quartiles were very narrow, ranging from just 2-0. The median was 0.

Speaker Level 4 = advanced
"Words" by Listener Home

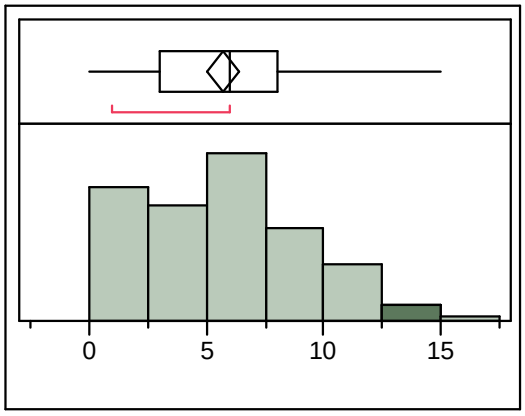


Quantiles

N		51
100.0%	maximum	10.000
99.5%		10.000
97.5%		8.425
90.0%		4.700
75.0%	quartile	2.000
50.0%	median	0.000
25.0%	quartile	0.000
10.0%		0.000
2.5%		0.000
0.5%		0.000
0.0%	minimum	0.000

The histogram of errors in the "words" category for Level 1 speakers as rated by teachers/non-teachers of Russian as a Second Language is skewed to the right. The maximum number of error points any speaker received was 15; the minimum was 0. Middle quartiles ranged from 8-3. The median for this data distribution was 6.

Speaker Level 1 = intro
"Words" by Teacher/Non-Teacher
of Russian

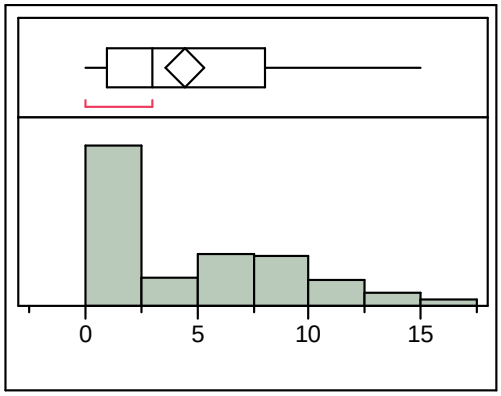


Quantiles

N		51
100.0%	maximum	15.000
99.5%		15.000
97.5%		13.425
90.0%		11.000
75.0%	quartile	8.000
50.0%	median	6.000
25.0%	quartile	3.000
10.0%		1.000
2.5%		0.000
0.5%		0.000
0.0%	minimum	0.000

Although the histogram for Level 2 speakers is also skewed to the right and the maximum and minimum error points are the same as for Level 1, the numbers after 0 are much more uniform than in the previous data distribution. The middle quartiles spanned from 8-1, and the median was 3.

Speaker Level 2 = intro
"Words" by Teacher/Non-Teacher
of Russian

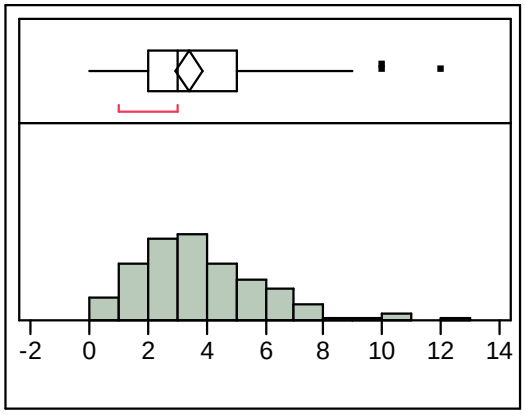


Quantiles

N		51
100.0%	maximum	15.000
99.5%		15.000
97.5%		14.425
90.0%		11.000
75.0%	quartile	8.000
50.0%	median	3.000
25.0%	quartile	1.000
10.0%		0.000
2.5%		0.000
0.5%		0.000
0.0%	minimum	0.000

The data for Level 3 speakers are distributed symmetrically. Maximum and minimum error point totals ranged from 12-0, respectively. The middle scores were between 5-2. The median was 3.

Speaker Level 3 = advanced
"Words" by Teacher/Non-Teacher
of Russian

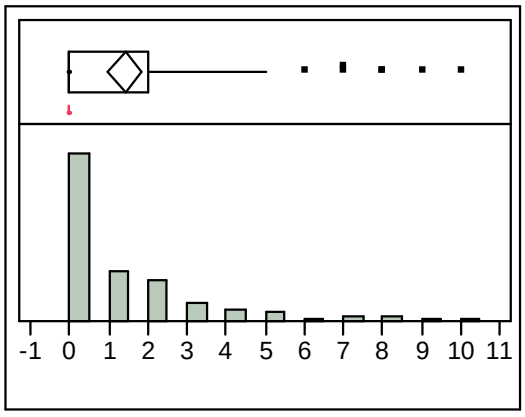


Quantiles

N		51
100.0%	maximum	12.000
99.5%		12.000
97.5%		10.000
90.0%		6.000
75.0%	quartile	5.000
50.0%	median	3.000
25.0%	quartile	2.000
10.0%		1.000
2.5%		0.000
0.5%		0.000
0.0%	minimum	0.000

The data distribution for Level 4 speakers is extremely skewed to the right. Here one sees that the maximum number of error points that listeners gave was 10; the minimum was 0. Middle quartiles ranged from a mere 2 to 0. The median was also very low at 0.

Speaker Level 4 = advanced
"Words" by Teacher/Non-Teacher
of Russian

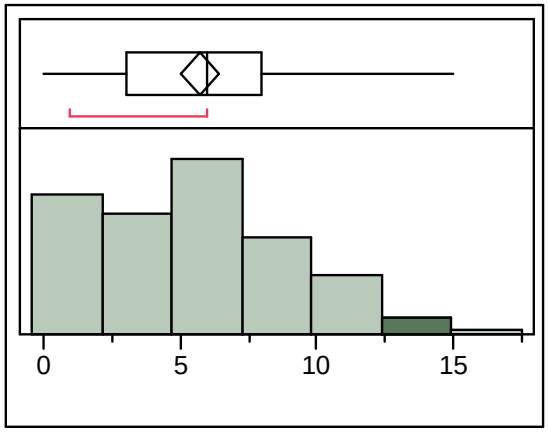


Quantiles

N		51
100.0%	maximum	10.000
99.5%		10.000
97.5%		8.425
90.0%		4.700
75.0%	quartile	2.000
50.0%	median	0.000
25.0%	quartile	0.000
10.0%		0.000
2.5%		0.000
0.5%		0.000
0.0%	minimum	0.000

The data distribution for Level 1 speakers as evaluated by Russians who have or have not had prior contact with Americans is skewed to the right. The maximum number of error points that any listener recorded was 15; the minimum was 0. The middle quartiles ranged from 8-3. The median was 6.

Speaker Level 1 = intro
"Words" by Has/Has Not Spoken to Americans

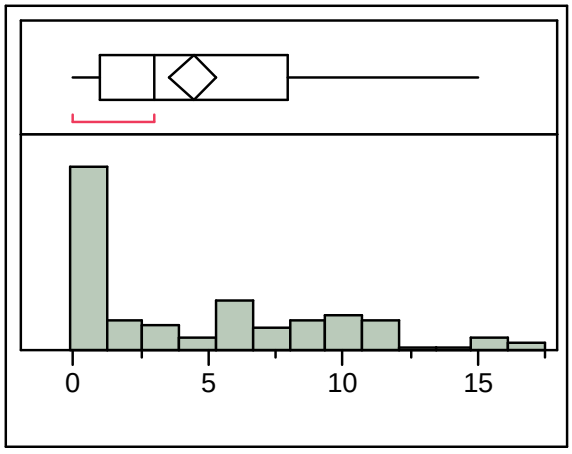


Quantiles

N		51
100.0%	maximum	15.000
99.5%		15.000
97.5%		13.425
90.0%		11.000
75.0%	quartile	8.000
50.0%	median	6.000
25.0%	quartile	3.000
10.0%		1.000
2.5%		0.000
0.5%		0.000
0.0%	minimum	0.000

The histogram for Level 2 speakers is very skewed to the right, with a maximum error count of 15 and a minimum of 0. The middle score range was from 8-1. The median was 3.

Speaker Level 2 = intro
"Words" by Has/Has Not Spoken to Americans

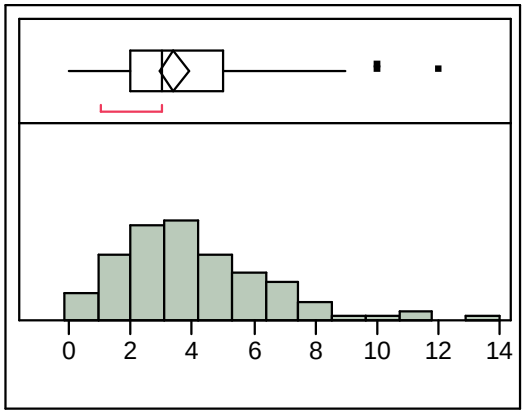


Quantiles

N		51
100.0%	maximum	15.000
99.5%		15.000
97.5%		14.425
90.0%		11.000
75.0%	quartile	8.000
50.0%	median	3.000
25.0%	quartile	1.000
10.0%		0.000
2.5%		0.000
0.5%		0.000
0.0%	minimum	0.000

The data distribution for Level 3 is also skewed to the right. The maximum and minimum number of error points given to speakers spanned from 12-0, respectively. The middle scores were between 5-2. The median was 3.

Speaker Level 3 = advanced
"Words" by Has/Has Not Spoken to Americans

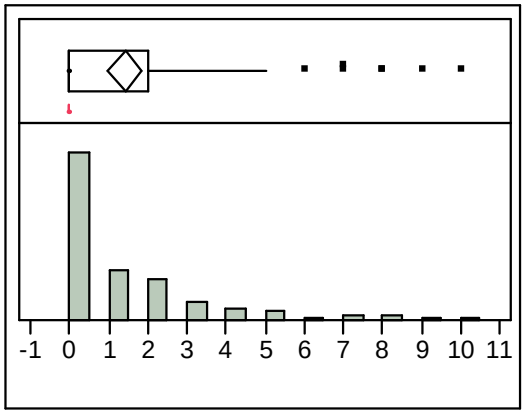


Quantiles

N		51
100.0%	maximum	12.000
99.5%		12.000
97.5%		10.000
90.0%		6.000
75.0%	quartile	5.000
50.0%	median	3.000
25.0%	quartile	2.000
10.0%		1.000
2.5%		0.000
0.5%		0.000
0.0%	minimum	0.000

The fourth and final distribution for this group is also very skewed to the right. When looking at it one sees that the maximum number of error points speakers received was 10, while the minimum was 0. The middle quartiles were very low, ranging from 2-0, and the median was 0.

Speaker Level 4 = advanced
"Words" by Has/Has Not Spoken to Americans

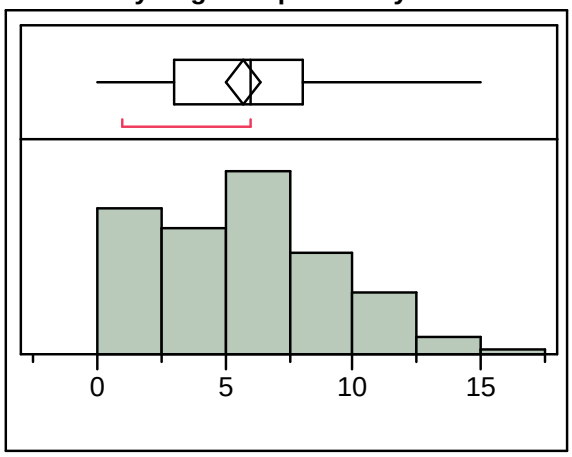


Quantiles

N		51
100.0%	maximum	10.000
99.5%		10.000
97.5%		8.425
90.0%		4.700
75.0%	quartile	2.000
50.0%	median	0.000
25.0%	quartile	0.000
10.0%		0.000
2.5%		0.000
0.5%		0.000
0.0%	minimum	0.000

The fourth and final listener category that will be examined in the "words" category is "English Speaker Yes/No." When looking at listener ratings of Level 1 speakers one sees that the data are skewed to the right. The maximum number of error points that a listener recorded was 15; the minimum was 0. The middle scores ranged from 8-3. The median was 6.

Speaker Level 1 = intro
"Words" by English Speaker – yes/no

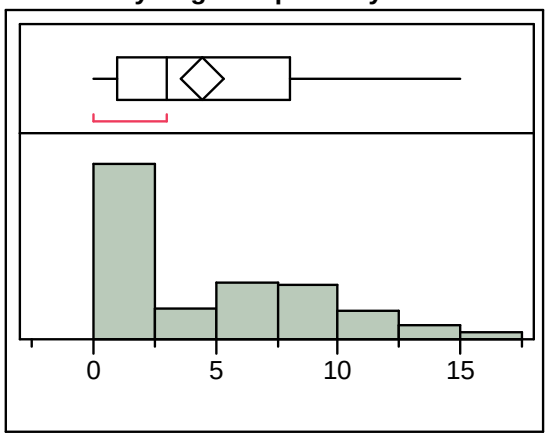


Quantiles

N		51
100.0%	maximum	15.000
99.5%		15.000
97.5%		13.425
90.0%		11.000
75.0%	quartile	8.000
50.0%	median	6.000
25.0%	quartile	3.000
10.0%		1.000
2.5%		0.000
0.5%		0.000
0.0%	minimum	0.000

The data distribution of Level 2 speakers is also skewed to the right. The maximum number of error points was 15; the minimum was 0. The middle score range was 8-1, with a median of 3.

Speaker Level 2 = intro
"Words" by English speaker yes/no

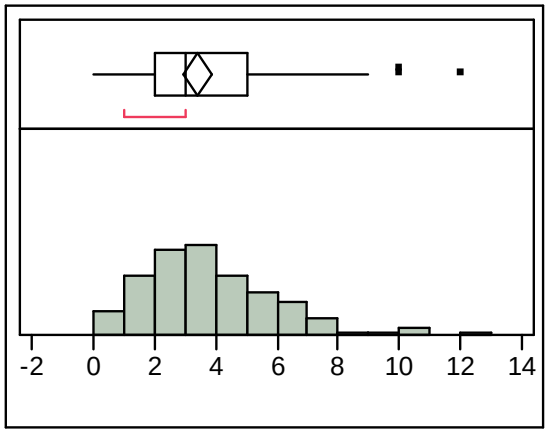


Quantiles

N		51
100.0%	maximum	15.000
99.5%		15.000
97.5%		14.425
90.0%		11.000
75.0%	quartile	8.000
50.0%	median	3.000
25.0%	quartile	1.000
10.0%		0.000
2.5%		0.000
0.5%		0.000
0.0%	minimum	0.000

The data distribution for Level 3 speakers as judged by English-speaking and non-English-speaking Russians is skewed to the right. Maximum and minimum error counts ranged from 12-0, respectively. Scores in the middle quartiles spanned from 5-2. The median was 3.

Speaker Level 3 = advanced
"Words" by English speaker yes/no

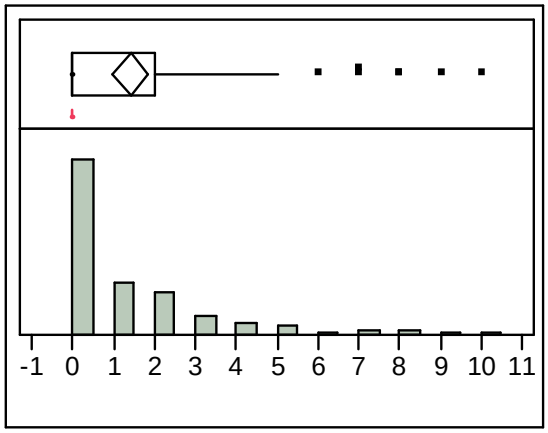


Quantiles

N		51
100.0%	maximum	12.000
99.5%		12.000
97.5%		10.000
90.0%		6.000
75.0%	quartile	5.000
50.0%	median	3.000
25.0%	quartile	2.000
10.0%		1.000
2.5%		0.000
0.5%		0.000
0.0%	minimum	0.000

Level 4 speakers produced data that are very skewed to the right. The error range for this distribution extended from 10-0, while the quartiles spanned a mere two points from 2-0. The median was 0.

Speaker Level 4 = advanced
"Words" by English speaker yes/no

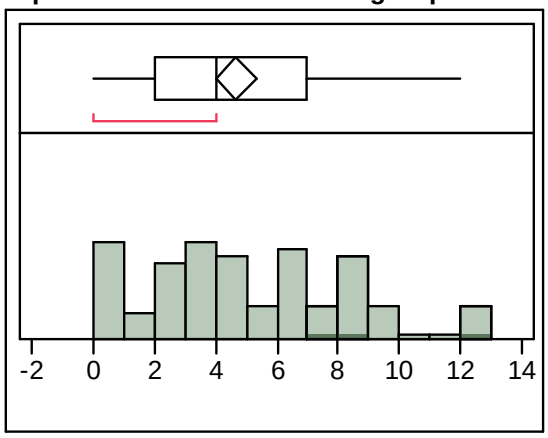


Quantiles

N		51
100.0%	maximum	10.000
99.5%		10.000
97.5%		8.425
90.0%		4.700
75.0%	quartile	2.000
50.0%	median	0.000
25.0%	quartile	0.000
10.0%		0.000
2.5%		0.000
0.5%		0.000
0.0%	minimum	0.000

Finally, I evaluate the "speech" category. Interestingly, the data distribution is the same for each level in all four groups (i.e. "Listener Home," "Teacher/Non-Teacher of Russian," "Prior Contact with Americans," and "English Speaker Yes/No"). The data distribution for Level 1 is symmetric. The maximum number of error points that listeners gave was 12 and the minimum was 0. The middle scores for speakers at this level ranged from 7-2. The median was 4.

Speaker Level 1 = intro
"Speech" – Same for all four groups

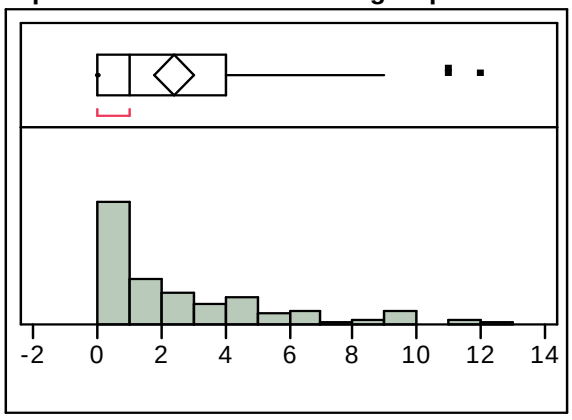


Quantiles

N		51
100.0%	maximum	12.000
99.5%		12.000
97.5%		12.000
90.0%		9.000
75.0%	quartile	7.000
50.0%	median	4.000
25.0%	quartile	2.000
10.0%		0.000
2.5%		0.000
0.5%		0.000
0.0%	minimum	0.000

The histogram for Level 2 is skewed to the right. The maximum number of speaker error points was 12, while the minimum was 0. The middle score range for errors at this level was from 7.7-1. The median was 4.

Speaker Level 2 = intro
"Speech" – Same for all four groups

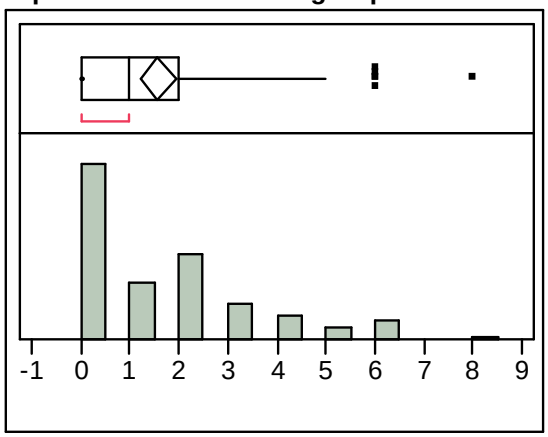


Quantiles

N		51
100.0%	maximum	12.000
99.5%		12.000
97.5%		11.000
90.0%		7.700
75.0%	quartile	4.000
50.0%	median	1.000
25.0%	quartile	0.000
10.0%		0.000
2.5%		0.000
0.5%		0.000
0.0%	minimum	0.000

When looking at the data distribution for Level 3 speakers, which is skewed to the right one sees that the maximum number of error points that listeners recorded was 8 and the minimum was 0. The middle scores fell between 2-0. The median was 1.

Speaker Level 3 = advanced
"Speech" – Same for all groups

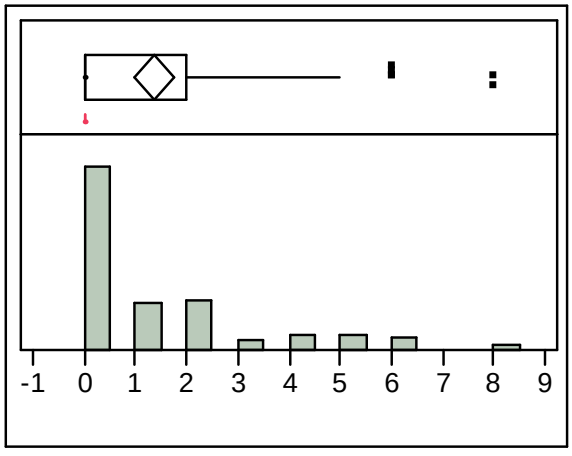


Quantiles

N		51
100.0%	maximum	8.0000
99.5%		8.0000
97.5%		6.0000
90.0%		4.0000
75.0%	quartile	2.0000
50.0%	median	1.0000
25.0%	quartile	0.0000
10.0%		0.0000
2.5%		0.0000
0.5%		0.0000
0.0%	minimum	0.0000

The histogram for Level 4 speakers, like that for that of Level 3, is also skewed to the right but slightly more uniform. Once again, the maximum number of error points that any speaker received was 8, while the minimum was 0. The middle quartiles were low at 2-0. The median was 0.

Speaker Level 4 = advanced
"Speech" – Same for all groups



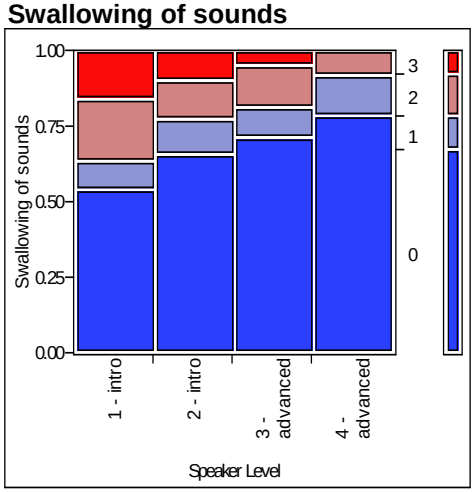
Quantiles

N		51
100.0%	maximum	8.0000
99.5%		8.0000
97.5%		6.8500
90.0%		5.0000
75.0%	quartile	2.0000
50.0%	median	0.0000
25.0%	quartile	0.0000
10.0%		0.0000
2.5%		0.0000
0.5%		0.0000
0.0%	minimum	0.0000

3.1.2 – Mosaic Plots of Errors Within Each Category

In the next section of this statistical analysis I examine error frequently as recorded in each category and speaker level. Mosaic plots were used for this purpose, as they clearly demonstrate the divisions between speaker level and frequency of errors by using numbers and different color patterns. For example, areas on the mosaic plots where no errors were made are shown with "0" and a dark blue color. Areas were errors occurred but very infrequently are shown with "1" and a light blue color. Fairly frequently occurring errors are shown with "2" and a light red color, while very frequent errors are shown with "3" and a dark red color. I begin by analyzing errors made in the "sounds" category.

The first error examined is "swallowing of sounds." When looking at the frequency of "3," or "very serious" errors, one sees that they occurred 16 times for Level 1 speakers, 10 times for Level 2 speakers, 5 times for Level 3 speakers and 0 times for Level 4 speakers. Thus, the total number of times that listeners deemed this error as "very serious" was 31.

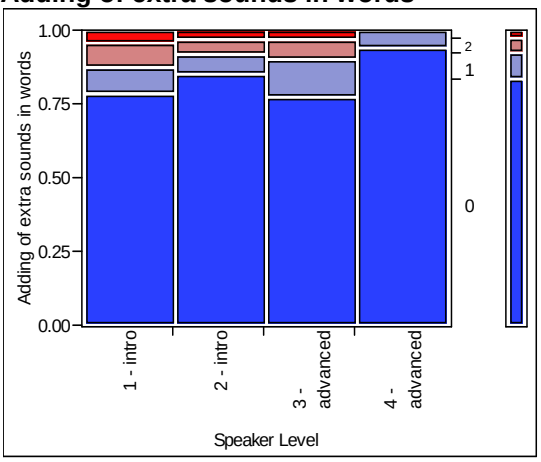


Swallowing of sounds

Count Total % Col % Row %	0	1	2	3	Total
1 - intro	55 13.48 20.00 53.92	10 2.45 21.74 9.80	21 5.15 37.50 20.59	16 3.92 51.61 15.69	102 25.00
2 - intro	67 16.42 24.36 65.69	12 2.94 26.09 11.76	13 3.19 23.21 12.75	10 2.45 32.26 9.80	102 25.00
3 - advanced	73 17.89 26.55 71.57	10 2.45 21.74 9.80	14 3.43 25.00 13.73	5 1.23 16.13 4.90	102 25.00
4 - advanced	80 19.61 29.09 78.43	14 3.43 30.43 13.73	8 1.96 14.29 7.84	0 0.00 0.00 0.00	102 25.00
	275 67.40	46 11.27	56 13.73	31 7.60	408

Regarding “adding extra sounds in words,” there were 4 instances when this error was considered as “very serious” among Level 1 speakers, 3 times among Level 2 speakers, 3 among Level 3 speakers and 0 times among Level 4 speakers for a total of 10.

Adding of extra sounds in words

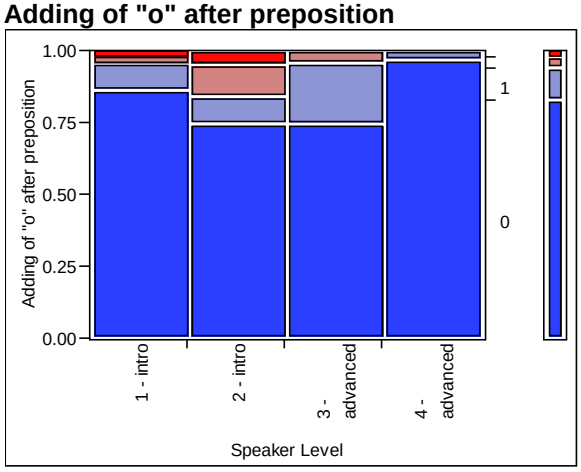


Adding of extra sounds in words

Count Total % Col % Row %	0	1	2	3	
1 - intro	80 19.61 23.39 78.43	9 2.21 25.71 8.82	9 2.21 42.86 8.82	4 0.98 40.00 3.92	102 25.00
2 - intro	87 21.32 25.44 85.29	7 1.72 20.00 6.86	5 1.23 23.81 4.90	3 0.74 30.00 2.94	102 25.00
3 - advanced	79 19.36 23.10 77.45	13 3.19 37.14 12.75	7 1.72 33.33 6.86	3 0.74 30.00 2.94	102 25.00
4 - advanced	96 23.53 28.07 94.12	6 1.47 17.14 5.88	0 0.00 0.00 0.00	0 0.00 0.00 0.00	102 25.00
	342 83.82	35 8.58	21 5.15	10 2.45	408

Adding of ‘o’ after a preposition” was very seldom rated as “very serious,” as the mosaic plot illustrates. In particular, among Level 1 speakers it was given a rating of “3” 2 times, among Level 2 speakers 5 times, while among Level 3 and 4 speakers the rating was 0. In sum, listeners considered this error “very serious” a total of only 7 times.

Adding of "o" after preposition

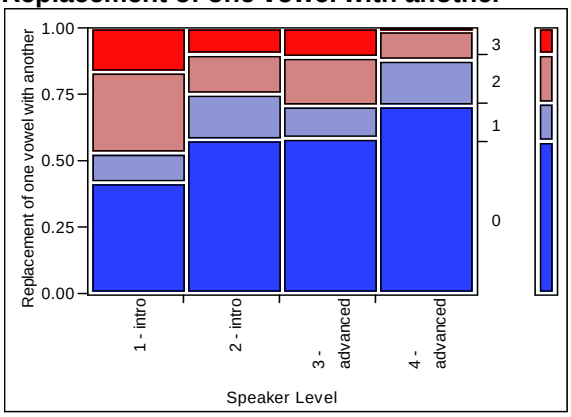


Adding of "o" after preposition

Count Total % Col % Row %	0	1	2	3	
1 - intro	88 21.57 25.96 86.27	10 2.45 22.22 9.80	2 0.49 11.76 1.96	2 0.49 28.57 1.96	102 25.00
2 - intro	76 18.63 22.42 74.51	10 2.45 22.22 9.80	11 2.70 64.71 10.78	5 1.23 71.43 4.90	102 25.00
3 - advanced	76 18.63 22.42 74.51	22 5.39 48.89 21.57	4 0.98 23.53 3.92	0 0.00 0.00 0.00	102 25.00
4 - advanced	99 24.26 29.20 97.06	3 0.74 6.67 2.94	0 0.00 0.00 0.00	0 0.00 0.00 0.00	102 25.00
	339 83.09	45 11.03	17 4.17	7 1.72	408

"Replacement of one vowel with another" was given a "very serious" rating 17 times for Level 1 speakers, 10 times for Level 2 speakers, 11 times for Level 3 speakers and only 1 time for Level 4 speakers. The total number of times this rating was given was 39 times.

Replacement of one vowel with another

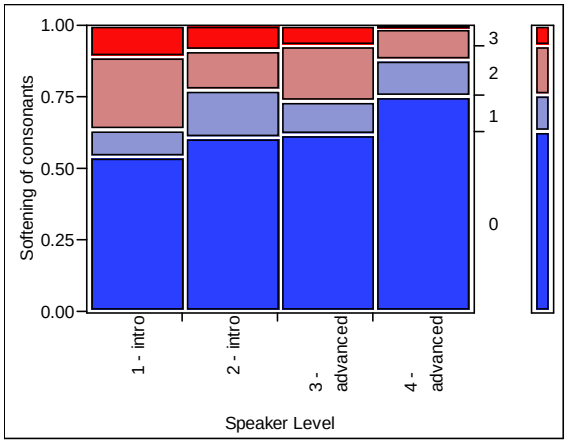


Replacement of one vowel with another

Count Total % Col % Row %	0	1	2	3	
1 - intro	43 10.54 18.38 42.16	11 2.70 18.64 10.78	31 7.60 40.79 30.39	17 4.17 43.59 16.67	102 25.00
2 - intro	59 14.46 25.21 57.84	18 4.41 30.51 17.65	15 3.68 19.74 14.71	10 2.45 25.64 9.80	102 25.00
3 - advanced	60 14.71 25.64 58.82	12 2.94 20.34 11.76	19 4.66 25.00 18.63	11 2.70 28.21 10.78	102 25.00
4 - advanced	72 17.65 30.77 70.59	18 4.41 30.51 17.65	11 2.70 14.47 10.78	1 0.25 2.56 0.98	102 25.00
	234 57.35	59 14.46	76 18.63	39 9.56	408

Errors recorded due to "softening of consonants" were less frequent than in the previous category. For Level 1 speakers a "3" rating was assigned 11 times, 9 times for Level 2 speakers, 7 for Level 3 speakers and only 1 time for Level 4 speakers. Thus, this error was deemed "very serious" 28 times.

Softening of consonants By Speaker Level Mosaic Plot

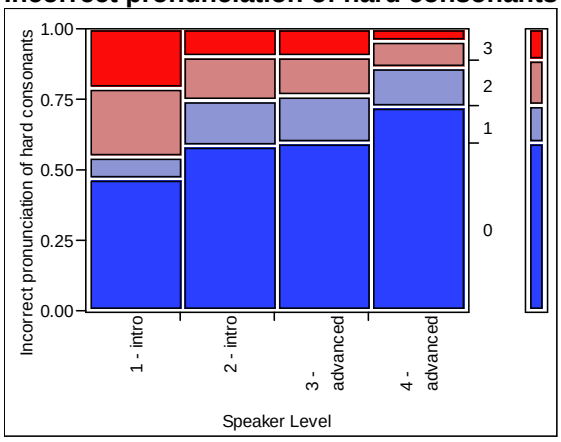


Softening of consonants

Count Total % Col % Row %	0	1	2	3	
1 - intro	55 13.48 21.40 53.92	10 2.45 19.23 9.80	26 6.37 36.62 25.49	11 2.70 39.29 10.78	102 25.00
2 - intro	62 15.20 24.12 60.78	17 4.17 32.69 16.67	14 3.43 19.72 13.73	9 2.21 32.14 8.82	102 25.00
3 - advanced	63 15.44 24.51 61.76	12 2.94 23.08 11.76	20 4.90 28.17 19.61	7 1.72 25.00 6.86	102 25.00
4 - advanced	77 18.87 29.96 75.49	13 3.19 25.00 12.75	11 2.70 15.49 10.78	1 0.25 3.57 0.98	102 25.00
	257 62.99	52 12.75	71 17.40	28 6.86	408

"Incorrect pronunciation of hard consonants" proved to be regarded as a "very serious" error among Level 1 speakers. In particular, individuals in that group were rated as having committed this error 21 times, unlike speakers in the other three groups who were given scores of "3" 10 times (for Levels 2 and 3) and 4 (for Level 4). As a result, this error was rated as "very serious" a total of 45 times.

Incorrect pronunciation of hard consonants

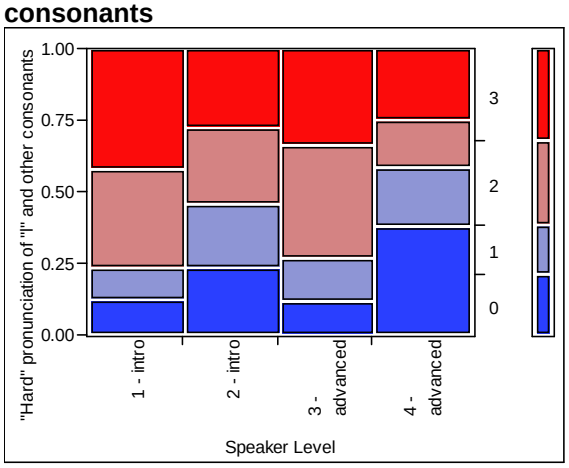


Incorrect pronunciation of hard consonants

Count Total % Col % Row %	0	1	2	3	
1 - intro	48 11.76 19.75 47.06	8 1.96 14.55 7.84	25 6.13 38.46 24.51	21 5.15 46.67 20.59	102 25.00
2 - intro	60 14.71 24.69 58.82	16 3.92 29.09 15.69	16 3.92 24.62 15.69	10 2.45 22.22 9.80	102 25.00
3 - advanced	61 14.95 25.10 59.80	17 4.17 30.91 16.67	14 3.43 21.54 13.73	10 2.45 22.22 9.80	102 25.00
4 - advanced	74 18.14 30.45 72.55	14 3.43 25.45 13.73	10 2.45 15.38 9.80	4 0.98 8.89 3.92	102 25.00
	243 59.56	55 13.48	65 15.93	45 11.03	408

In the next category, "'hard' pronunciation of 'l' and other consonants" listeners gave speakers many scores of "3," which is evidenced by the large amount of red found on the mosaic plot for this error. For Level 1 speakers this error was judged "very serious" 43 times, while it was heard 28 times among Level 2 speakers, 34 times among Level 3 speakers and 25 times among Level 4 speakers. These figures resulted in 130 scores of "3" for this error.

"Hard" pronunciation of "l" and other consonants

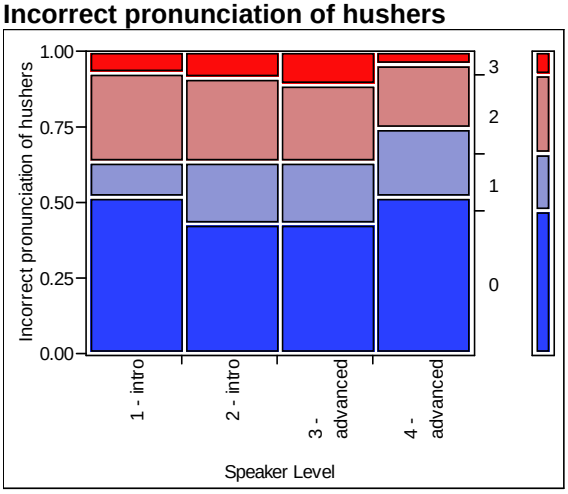


"Hard" pronunciation of "l" and other consonants

Count Total % Col % Row %	0	1	2	3	
1 - intro	13 3.19 14.77 12.75	11 2.70 15.71 10.78	35 8.60 29.41 34.31	43 10.57 33.08 42.16	102 25.06
2 - intro	24 5.90 27.27 23.53	23 5.65 32.86 22.55	27 6.63 22.69 26.47	28 6.88 21.54 27.45	102 25.06
3 - advanced	12 2.95 13.64 11.88	15 3.69 21.43 14.85	40 9.83 33.61 39.60	34 8.35 26.15 33.66	101 24.82
4 - advanced	39 9.58 44.32 38.24	21 5.16 30.00 20.59	17 4.18 14.29 16.67	25 6.14 19.23 24.51	102 25.06
	88 21.62	70 17.20	119 29.24	130 31.94	407

Listeners gave Level 1, 2 and 3 speakers fairly similar ratings of “very serious” for “incorrect pronunciation of hushers.” In particular, this error was heard 7 times among Level 1 speakers, 9 times among Level 2 speakers and 11 times among Level 3 speakers. Among Level 4 speakers, however, this error was rated “very serious” only 4 times. Thus, it was heard a total of 31 times.

Incorrect pronunciation of hushers

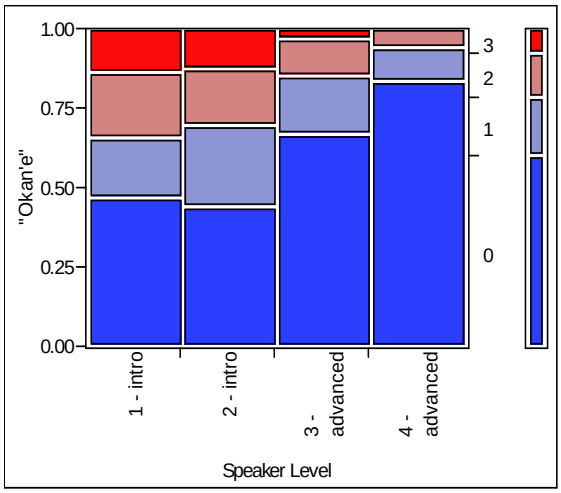


Incorrect pronunciation of hushers

Count Total % Col % Row %	0	1	2	3	
1 - intro	53 12.99 27.32 51.96	12 2.94 15.58 11.76	30 7.35 28.30 29.41	7 1.72 22.58 6.86	102 25.00
2 - intro	44 10.78 22.68 43.14	21 5.15 27.27 20.59	28 6.86 26.42 27.45	9 2.21 29.03 8.82	102 25.00
3 - advanced	44 10.78 22.68 43.14	21 5.15 27.27 20.59	26 6.37 24.53 25.49	11 2.70 35.48 10.78	102 25.00
4 - advanced	53 12.99 27.32 51.96	23 5.64 29.87 22.55	22 5.39 20.75 21.57	4 0.98 12.90 3.92	102 25.00
	194 47.55	77 18.87	106 25.98	31 7.60	408

Level 1 and Level 2 speakers made almost an identical number of “very serious” errors in the category of “okan’e,” while such error counts for Level 3 and Level 4 speakers were almost the same. Specifically, Level 1 speakers committed this error “very seriously” 14 times, Level 2 speakers 13 times, Level 3 speakers 3 times and Level 4 speakers 0. Listeners gave speakers a rating of “3” or “very serious” a total of 30 times.

"Okan'e"

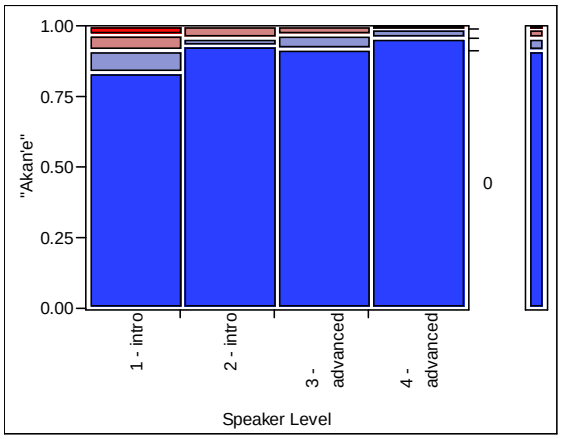


"Okan'e"

Count Total % Col % Row %	0	1	2	3	
1 - intro	48 11.76 19.51 47.06	19 4.66 25.33 18.63	21 5.15 36.84 20.59	14 3.43 46.67 13.73	102 25.00
2 - intro	45 11.03 18.29 44.12	26 6.37 34.67 25.49	18 4.41 31.58 17.65	13 3.19 43.33 12.75	102 25.00
3 - advanced	68 16.67 27.64 66.67	19 4.66 25.33 18.63	12 2.94 21.05 11.76	3 0.74 10.00 2.94	102 25.00
4 - advanced	85 20.83 34.55 83.33	11 2.70 14.67 10.78	6 1.47 10.53 5.88	0 0.00 0.00 0.00	102 25.00
	246 60.29	75 18.38	57 13.97	30 7.35	408

Listeners did not give speakers a “3” or “very serious” rating for “akan’e.” Indeed, the only group that received this rating was Level 1 speakers who listeners heard make it 3 times.

"Akan'e"

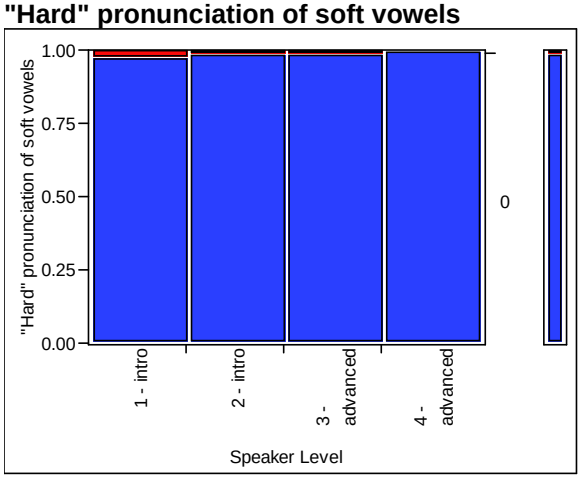


"Akan'e"

Count Total % Col % Row %	0	1	2	3	
1 - intro	85 20.83 22.85 83.33	8 1.96 42.11 7.84	6 1.47 42.86 5.88	3 0.74 100.0 0 2.94	102 25.00
2 - intro	95 23.28 25.54 93.14	3 0.74 15.79 2.94	4 0.98 28.57 3.92	0 0.00 0.00 0.00	102 25.00
3 - advanced	94 23.04 25.27 92.16	5 1.23 26.32 4.90	3 0.74 21.43 2.94	0 0.00 0.00 0.00	102 25.00
4 - advanced	98 24.02 26.34 96.08	3 0.74 15.79 2.94	1 0.25 7.14 0.98	0 0.00 0.00 0.00	102 25.00
	372 91.18	19 4.66	14 3.43	3 0.74	408

Although no speakers received a rating above “1” for “hard pronunciation of soft vowels,” the mosaic plot and contingency table are still provided here.

"Hard" pronunciation of soft vowels

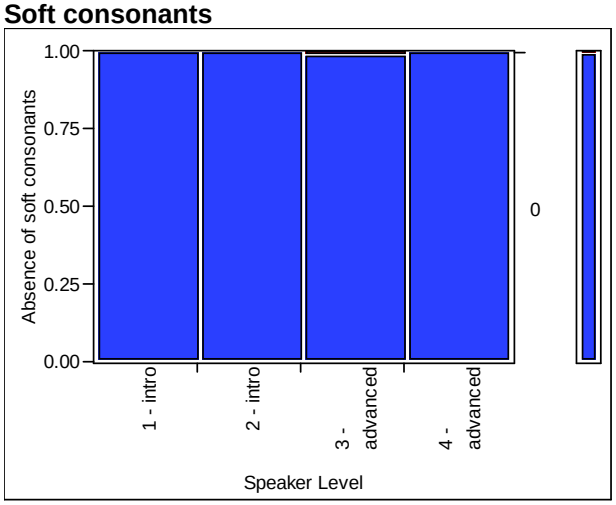


"Hard" pronunciation of soft vowels

Count Total % Col % Row %	0	1	
1 - intro	100 24.51 24.75 98.04	2 0.49 50.00 1.96	102 25.00
2 - intro	101 24.75 25.00 99.02	1 0.25 25.00 0.98	102 25.00
3 - advanced	101 24.75 25.00 99.02	1 0.25 25.00 0.98	102 25.00
4 - advanced	102 25.00 25.25 100.00	0 0.00 0.00 0.00	102 25.00
	404 99.02	4 0.98	408

Similarly to the previous category, listeners did not assign speakers ratings of “3” for “absence of soft consonants;” instead, only ratings of “0” and “2” were given. Despite the lack of “very serious” ratings, the mosaic plot and contingency table are still provided here.

Soft consonants

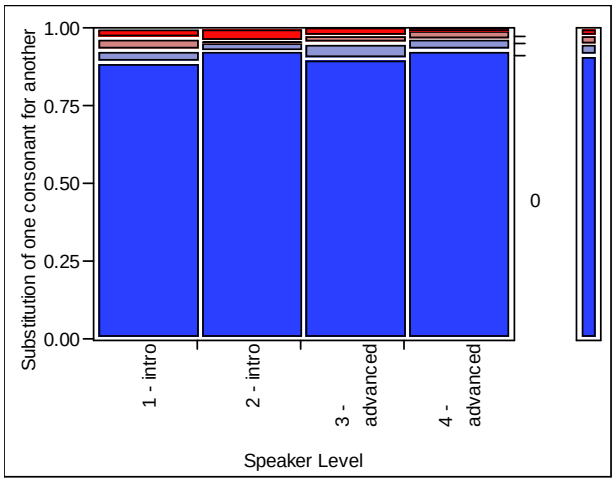


Absence of soft consonants

Count Total % Col % Row %	0	2	
1 - intro	102 25.00 25.06 100.00	0 0.00 0.00 0.00	102 25.00
2 - intro	102 25.00 25.06 100.00	0 0.00 0.00 0.00	102 25.00
3 - advanced	101 24.75 24.82 99.02	1 0.25 100.00 0.98	102 25.00
4 - advanced	102 25.00 25.06 100.00	0 0.00 0.00 0.00	102 25.00
	407 99.75	1 0.25	408

Listeners did not give high ratings of “3” for “substitution of one consonant for another.” Level 1 speakers were heard to make this error 3 times, Level 2 speakers 4 times, Level 3 speakers twice and Level 4 speakers once. Thus, L-1 listeners rated this error as “very serious” a total of only 10 times.

Substitution of one consonant for another



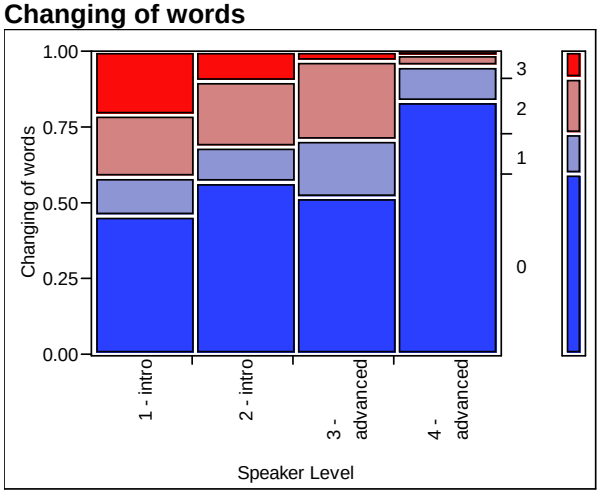
Substitution of one consonant for another

Count Total % Col % Row %	0	1	2	3	
1 - intro	91 22.30 24.40 89.22	4 0.98 26.67 3.92	4 0.98 40.00 3.92	3 0.74 30.00 2.94	102 25.00
2 - intro	95 23.28 25.47 93.14	2 0.49 13.33 1.96	1 0.25 10.00 0.98	4 0.98 40.00 3.92	102 25.00
3 - advanced	92 22.55 24.66 90.20	5 1.23 33.33 4.90	3 0.74 30.00 2.94	2 0.49 20.00 1.96	102 25.00
4 - advanced	95 23.28 25.47 93.14	4 0.98 26.67 3.92	2 0.49 20.00 1.96	1 0.25 10.00 0.98	102 25.00
	373 91.42	15 3.68	10 2.45	10 2.45	408

I now examine the total number of errors in the “words” category and begin by analyzing the results of “changing of words.”

Without question, the most frequent number of “very serious” or “3” ratings in this category were found among Level 1 speakers who committed this error 21 times. As the speaker level increased, fewer and fewer errors were recorded in this category. Specifically, Level 2 speakers were heard to make it 10 times, while Level 3 speakers made it 3 times and Level 4 speakers only once. “Changing of words” was heard a total of 35 times.

Changing of words

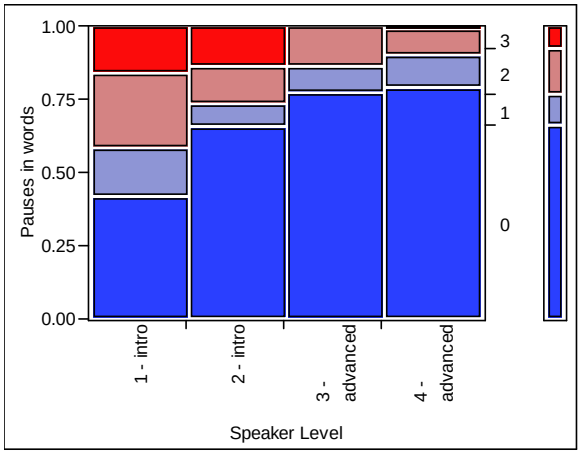


Changing of words

Count Total % Col % Row %	0	1	2	3	
1 - intro	47 11.52 19.34 46.08	13 3.19 23.21 12.75	21 5.15 28.38 20.59	21 5.15 60.00 20.59	102 25.00
2 - intro	58 14.22 23.87 56.86	12 2.94 21.43 11.76	22 5.39 29.73 21.57	10 2.45 28.57 9.80	102 25.00
3 - advanced	53 12.99 21.81 51.96	19 4.66 33.93 18.63	27 6.62 36.49 26.47	3 0.74 8.57 2.94	102 25.00
4 - advanced	85 20.83 34.98 83.33	12 2.94 21.43 11.76	4 0.98 5.41 3.92	1 0.25 2.86 0.98	102 25.00
	243 59.56	56 13.73	74 18.14	35 8.58	408

Speakers made a similar number of errors in “pauses in words” as they had in the previous category. In particular, the number of times this error was made by Level 1 and 2 speakers differed by a mere two points – Level 1 speakers were heard to have made it 16 times, while Level 2 speakers did so 14 times. A parallel situation arose among Level 3 and 4 speakers who made this error 0 times and once, respectively. In all, listeners heard speakers insert pauses in words a total of 31 times.

Pauses in words

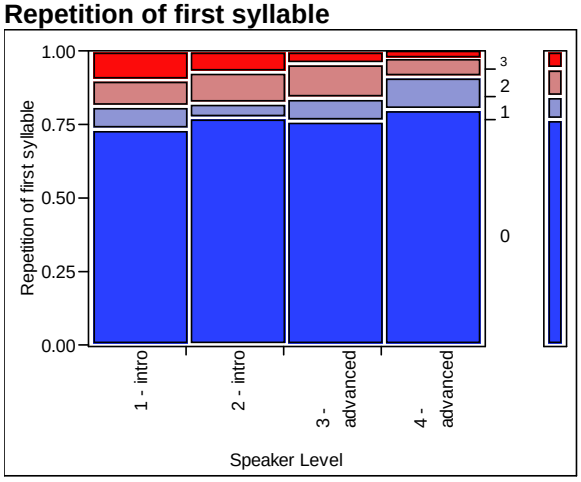


Pauses in words

Count Total % Col % Row %	0	1	2	3	
1 - intro	43 10.54 15.93 42.16	17 4.17 37.78 16.67	26 6.37 41.94 25.49	16 3.92 51.61 15.69	102 25.00
2 - intro	67 16.42 24.81 65.69	8 1.96 17.78 7.84	13 3.19 20.97 12.75	14 3.43 45.16 13.73	102 25.00
3 - advanced	79 19.36 29.26 77.45	9 2.21 20.00 8.82	14 3.43 22.58 13.73	0 0.00 0.00 0.00	102 25.00
4 - advanced	81 19.85 30.00 79.41	11 2.70 24.44 10.78	9 2.21 14.52 8.82	1 0.25 3.23 0.98	102 25.00
	270 66.18	45 11.03	62 15.20	31 7.60	408

The frequency of “very serious” ratings for “repetition of first syllable” was slightly lower than in the previous two categories. One sees that Level 1 speakers were given the rating of “3” 10 times, Level 2 speakers 7 times, while Level 3 and 4 speakers made it 4 and 2 times, respectively. Thus, listeners rated this error as “very serious” a total of 23 times.

Repetition of first syllable

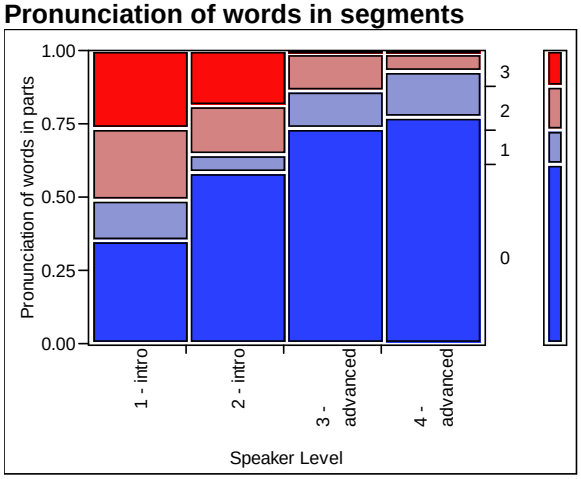


Repetition of first syllable

Count Total % Col % Row %	0	1	2	3	
1 - intro	75 18.38 23.89 73.53	8 1.96 25.00 7.84	9 2.21 23.08 8.82	10 2.45 43.48 9.80	102 25.00
2 - intro	79 19.36 25.16 77.45	5 1.23 15.63 4.90	11 2.70 28.21 10.78	7 1.72 30.43 6.86	102 25.00
3 - advanced	78 19.12 24.84 76.47	8 1.96 25.00 7.84	12 2.94 30.77 11.76	4 0.98 17.39 3.92	102 25.00
4 - advanced	82 20.10 26.11 80.39	11 2.70 34.38 10.78	7 1.72 17.95 6.86	2 0.49 8.70 1.96	102 25.00
	314 76.96	32 7.84	39 9.56	23 5.64	408

Unlike the other categories in “words,” Level 1 and 2 speakers received many “very serious” ratings for errors in “pronunciation of words in segments.” Specifically, Level 1 speakers committed this error 27 times, while Level 2 speakers did so 19 times. Among advanced-level speakers, however, listeners did not hear this error frequently, as it was heard once among speakers of both groups. Thus, “pronunciation of words in segments” was given a rating of “3” a total of 48 times.

Pronunciation of words in segments

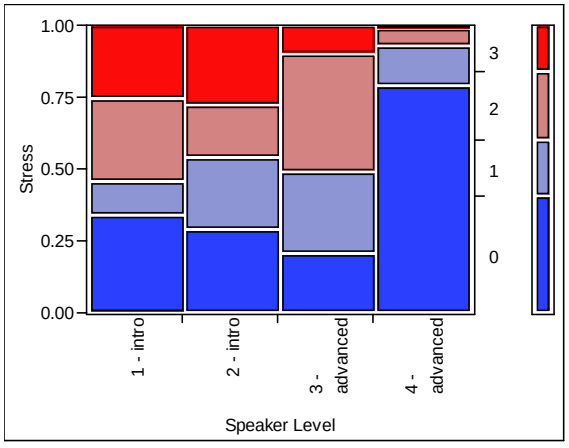


Pronunciation of words in segments

Count Total % Col % Row %	0	1	2	3	
1 - intro	36 8.82 14.40 35.29	14 3.43 28.57 13.73	25 6.13 40.98 24.51	27 6.62 56.25 26.47	102 25.00
2 - intro	60 14.71 24.00 58.82	6 1.47 12.24 5.88	17 4.17 27.87 16.67	19 4.66 39.58 18.63	102 25.00
3 - advanced	75 18.38 30.00 73.53	13 3.19 26.53 12.75	13 3.19 21.31 12.75	1 0.25 2.08 0.98	102 25.00
4 - advanced	79 19.36 31.60 77.45	16 3.92 32.65 15.69	6 1.47 9.84 5.88	1 0.25 2.08 0.98	102 25.00
	250 61.27	49 12.01	61 14.95	48 11.76	408

Without question, the highest frequency of “very serious” ratings in the “words” category occurred among Level 1, 2 and 3 speakers due to stress errors. Listeners assigned this rating to Level 1 speakers 26 times, Level 2 speakers 28 times and Level 3 speakers 10 times. Among Level 4 speakers, however, this error was heard only once. As a result, it received a “3” rating a total of 65 times.

Stress

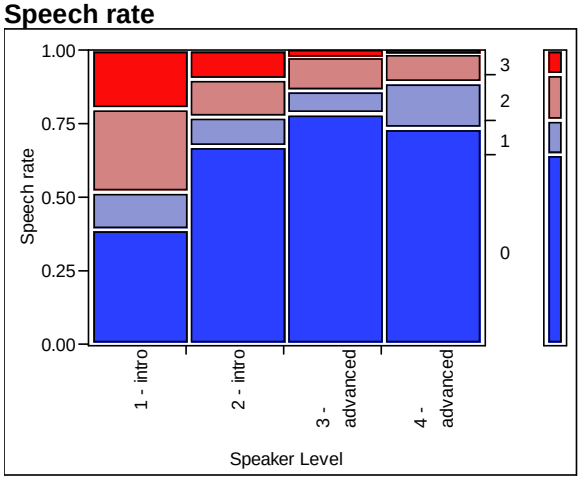


Stress

Count Total % Col % Row %	0	1	2	3	
1 - intro	35 8.58 20.96 34.31	12 2.94 15.00 11.76	29 7.11 30.21 28.43	26 6.37 40.00 25.49	102 25.00
2 - intro	30 7.35 17.96 29.41	25 6.13 31.25 24.51	19 4.66 19.79 18.63	28 6.86 43.08 27.45	102 25.00
3 - advanced	21 5.15 12.57 20.59	29 7.11 36.25 28.43	42 10.29 43.75 41.18	10 2.45 15.38 9.80	102 25.00
4 - advanced	81 19.85 48.50 79.41	14 3.43 17.50 13.73	6 1.47 6.25 5.88	1 0.25 1.54 0.98	102 25.00
	167 40.93	80 19.61	96 23.53	65 15.93	408

I now analyze the frequency of "3" ratings made by speakers in the "speech" category. I begin by examining errors in speech rate. As one sees, such errors were most widespread among Level 1 speakers, with a frequency rate of 20. "Very serious" or "3" errors were heard by Level 2 speakers 10 times. Advanced-level speakers made this error "very seriously" twice, while Level 4 speakers did so once. In total, errors in speech rate warranted a rating of "3" 33 times.

Speech rate

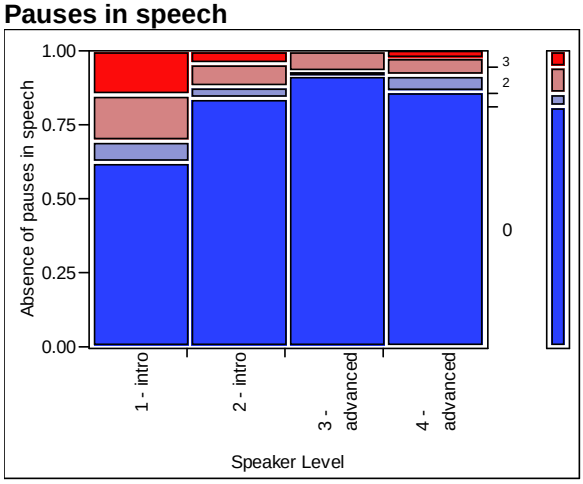


Speech rate

Count Total % Col % Row %	0	1	2	3	
1 - intro	40 9.80 15.15 39.22	13 3.19 27.66 12.75	29 7.11 45.31 28.43	20 4.90 60.61 19.61	102 25.00
2 - intro	69 16.91 26.14 67.65	10 2.45 21.28 9.80	13 3.19 20.31 12.75	10 2.45 30.30 9.80	102 25.00
3 - advanced	80 19.61 30.30 78.43	8 1.96 17.02 7.84	12 2.94 18.75 11.76	2 0.49 6.06 1.96	102 25.00
4 - advanced	75 18.38 28.41 73.53	16 3.92 34.04 15.69	10 2.45 15.63 9.80	1 0.25 3.03 0.98	102 25.00
	264 64.71	47 11.52	64 15.69	33 8.09	408

Errors in pauses in speech were heard the most often, or 15 times among Level 1 speakers. Among speakers of the other three groups this error did not occur as often – 4 instances were heard among Level 2 speakers, 0 among Level 3 speakers and 2 among Level 4 speakers. The total number of "very serious" errors in this category was 21.

Pauses in speech

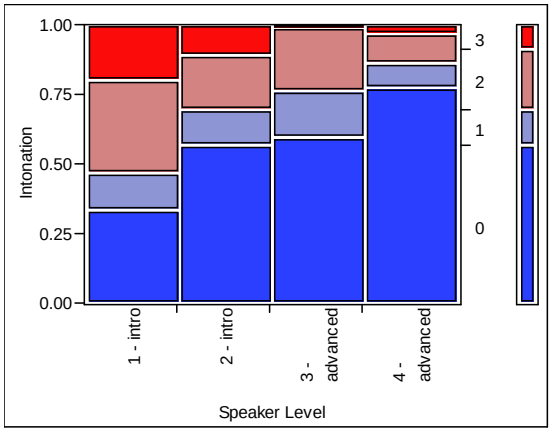


Absence of pauses in speech

Count Total % Col % Row %	0	1	2	3	
1 - intro	64 15.69 19.28 62.75	7 1.72 38.89 6.86	16 3.92 43.24 15.69	15 3.68 71.43 14.71	102 25.00
2 - intro	86 21.08 25.90 84.31	4 0.98 22.22 3.92	8 1.96 21.62 7.84	4 0.98 19.05 3.92	102 25.00
3 - advanced	94 23.04 28.31 92.16	1 0.25 5.56 0.98	7 1.72 18.92 6.86	0 0.00 0.00 0.00	102 25.00
4 - advanced	88 21.57 26.51 86.27	6 1.47 33.33 5.88	6 1.47 16.22 5.88	2 0.49 9.52 1.96	102 25.00
	332	18	37	21	408

Intonation received the highest number of "3" ratings in the "speech" category, with introductory-level students having made the largest number of such errors. Level 1 speakers were heard to have made "very serious" intonation errors 20 times, while Level 2 speakers did so 11 times. However, advanced-level speakers did not make many "very serious" intonation errors; Level 3 speakers made only 1 such error, while Level 4 speakers made 3. Thus, listeners rated this error as "very serious" a total of 35 times.

Intonation

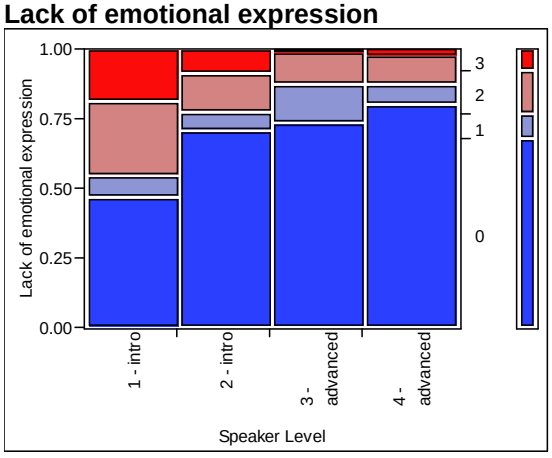


Intonation

Count Total % Col % Row %	0	1	2	3	
1 - intro	34 8.33 14.66 33.33	14 3.43 26.42 13.73	34 8.33 38.64 33.33	20 4.90 57.14 19.61	102 25.00
2 - intro	58 14.22 25.00 56.86	13 3.19 24.53 12.75	20 4.90 22.73 19.61	11 2.70 31.43 10.78	102 25.00
3 - advanced	61 14.95 26.29 59.80	17 4.17 32.08 16.67	23 5.64 26.14 22.55	1 0.25 2.86 0.98	102 25.00
4 - advanced	79 19.36 34.05 77.45	9 2.21 16.98 8.82	11 2.70 12.50 10.78	3 0.74 8.57 2.94	102 25.00
	232 56.86	53 12.99	88 21.57	35 8.58	408

"Lack of emotional expression" did not receive the same frequency of "3" ratings as did speech rate or intonation. However, it did receive more "very serious" ratings than absence of pauses in speech. Specifically, Level 1 speakers made 19 "very serious" errors in "lack of emotional expression," while Level 2 speakers made this error 9 times. Conversely, Level 3 and 4 speakers used incorrect emotional expression much less than introductory-level speakers, as this error was recorded once among Level 3 speakers and twice among Level 4 speakers. Therefore, listeners heard this error a total of 31 times.

Lack of emotional expression

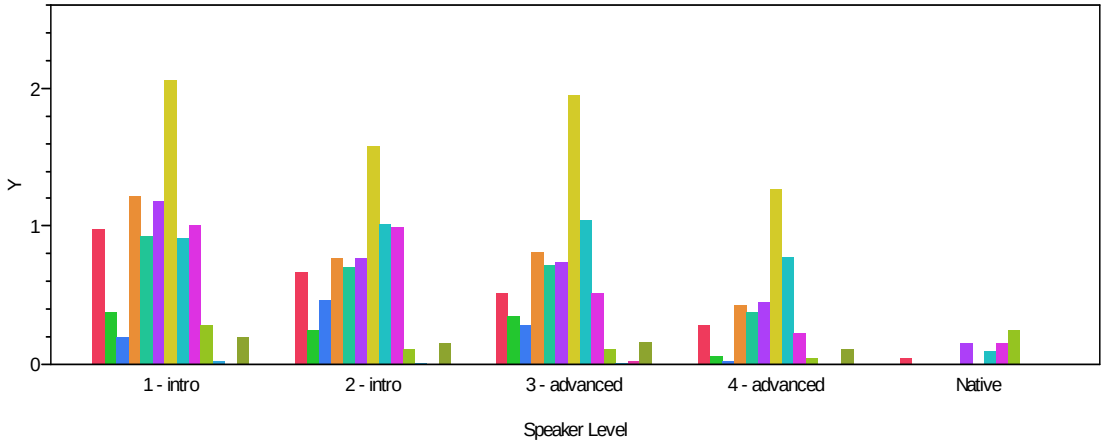


Lack of emotional expression

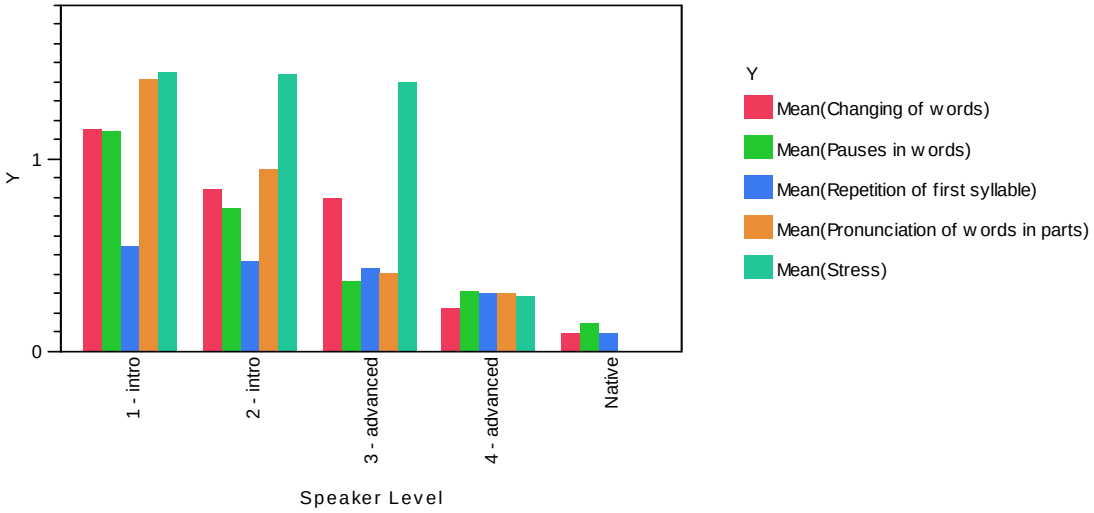
Count Total % Col % Row %	0	1	2	3	
1 - intro	48 11.76 17.33 47.06	8 1.96 22.22 7.84	27 6.62 42.19 26.47	19 4.66 61.29 18.63	102 25.00
2 - intro	72 17.65 25.99 70.59	7 1.72 19.44 6.86	14 3.43 21.88 13.73	9 2.21 29.03 8.82	102 25.00
3 - advanced	75 18.38 27.08 73.53	14 3.43 38.89 13.73	12 2.94 18.75 11.76	1 0.25 3.23 0.98	102 25.00
4 - advanced	82 20.10 29.60 80.39	7 1.72 19.44 6.86	11 2.70 17.19 10.78	2 0.49 6.45 1.96	102 25.00
	277 67.89	36 8.82	64 15.69	31 7.60	408

3.1.3 – Bar Graphs

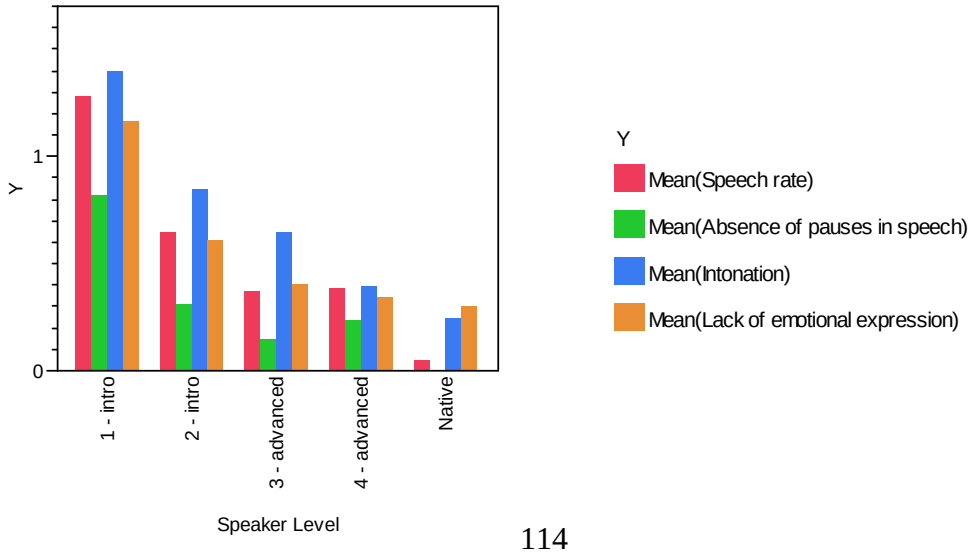
By using bar graphs, one is able to clearly see which error listeners rated as the most frequent among speakers within the “sounds,” “words” and “speech” categories. When examining errors in the “sounds” category “‘hard’ pronunciation of ‘l’ and other consonants” was rated as the most frequent and serious error among L-2 speakers of all levels, while native speakers were heard to make the most errors in “akan’e.”



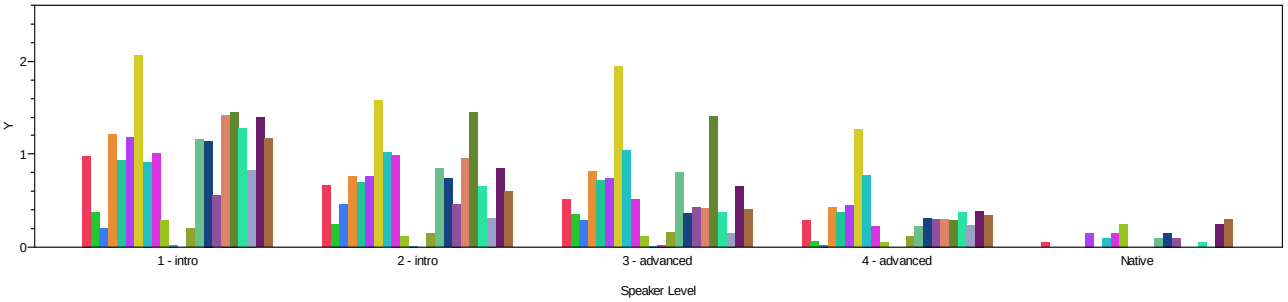
The bar graph shows that listeners rated “incorrectly used word stress” as the most frequent and serious error in the “words” category among Introductory Level 1 and 2 and Advanced Level 3 speakers. However, among Advanced Level 4 speakers and natives “pauses in words” were heard slightly more often than the other errors in this category.



The bar graph for the “speech” category” illustrates that listeners rated “intonation” as the most frequent and serious error among speakers of all levels. However, Level 4 speakers made almost as many mistakes in speech rate as they did in intonation. Natives were heard to speak the most often without emotional expression.



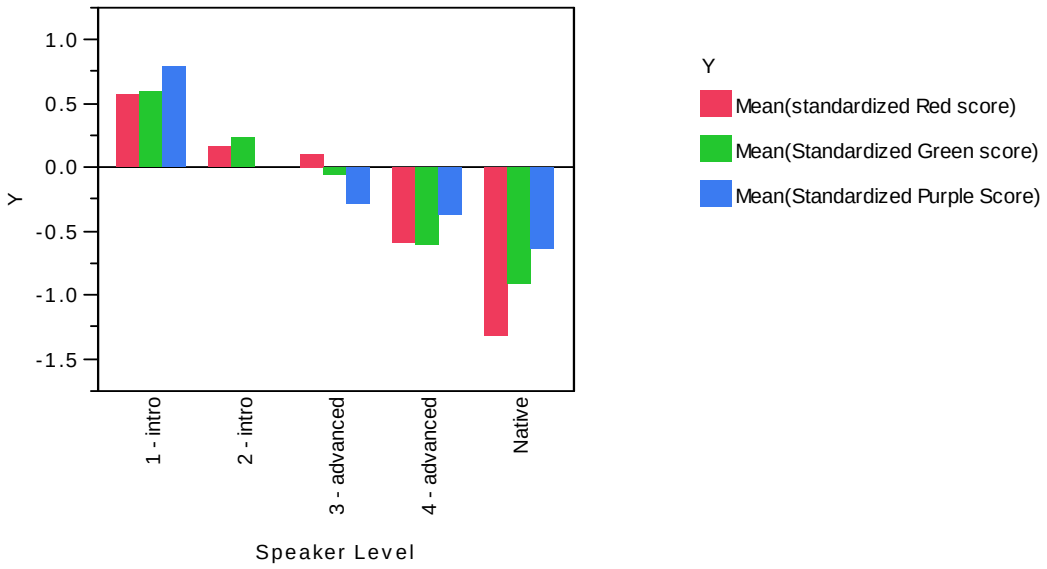
I combined the scores in the “sounds,” “words” and “speech” categories in order to determine which error(s) listeners rated as “3” or “very serious.” “‘Hard’ pronunciation of ‘l’ and other consonants” was rated as the most problematic error among all speaker levels. Among Introductory Level 1, 2 and Advanced Level 3 speakers “incorrect stress” was the second most frequent problematic error, while among Advanced Level 4 speakers “incorrect pronunciation of hushers” held the second position. Natives most often spoke without emotional expression.



Y

- Mean(Sw allow ing of sounds)
- Mean(A dding of extra sounds in w ords)
- Mean(A dding of "o" after preposition)
- Mean(Replacement of one vow el w ith another)
- Mean(Softening of consonants)
- Mean(Incorrect pronunciation of hard consonants)
- Mean("Hard" pronunciation of "l" and other consonants)
- Mean(Incorrect pronunciation of hushers)
- Mean("Okan'e")
- Mean("A kan'e")
- Mean("Hard" pronunciation of soft vow els)
- Mean(A bsence of soft consonants)
- Mean(Substitution of one consonant for another)
- Mean(Changing of w ords)
- Mean(Pauses in w ords)
- Mean(Repetition of first syllable)
- Mean(Pronunciation of w ords in parts)
- Mean(Stress)
- Mean(Speech rate)
- Mean(A bsence of pauses in speech)
- Mean(Intonation)
- Mean(Lack of emotional expression)

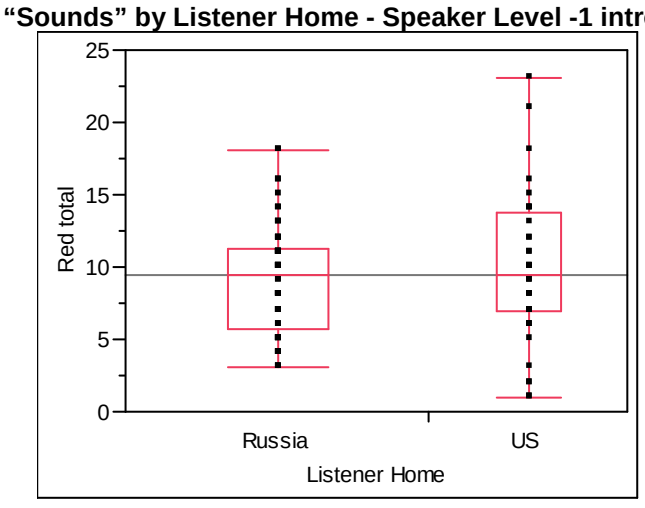
An inverted bar graph was used to compare the total standarized scores in the "sounds" ("red total"), "words" ("green total") and "speech" ("purple total") categories. Bars above the 0.0 line indicate scores that are above the average problem scores, or incorrect, while those below the 0.0 line are below the average problem score, or correct. The results of this graph indicate that, although the scores received by Introductory Level 1 speakers for "sounds," "words" and "speech" errors were all above the average problem score levels, "speech" errors were rated as the most frequent and serious. Among Introductory Level 2 speakers only errors made in "sounds" and "words" were above the level of average problem scores; "speech" scores were at exactly 0. A different picture emerges for Advanced Level 3 speakers, however, whose "sounds" scores were above the level of average problem scores, but whose "words" and "speech" scores were below the average problem score level, with the fewest errors heard in the "speech" category. Among Advanced Level 4 speakers "sounds," words" and "speech" totals were all below the level for average problem scores with the best scores recorded in the "words" category. Among natives scores in "sounds" were the highest.



3.1.4 – Box Plots

In the next section of my statistical analysis I use box plots to examine the degree of distribution in the data within each of the four listener groups as it relates to speaker ratings in the "sounds," "words" and "speech" categories. The bottom and top of the boxes are the 25th and 75th percentiles (also referred to as the "lower and upper quartiles"), and represent roughly the middle 50% of values. The band near the middle of the box is the 50th percentile (also known as the "median") and illustrates the central value among the numbers. "Maximum" is the largest of all the total scores being summarized (i.e. number of errors noted), while "minimum" is the smallest. I begin by examining the number of error points in the "sounds" category given to Introductory Level 1 speakers by Russians in Russia and Russians in the US.

The box plot data for Russians in Russia illustrates that the largest number of total error scores that listeners gave speakers for sounds pronounced incorrectly was 18 and the minimum was 3. 50% of the speaker error scores fell between 11.25-5.75%. The 50th percentile, or median, was 9.5. Alternatively, Russians in the US gave speakers in this group a maximum total error score of 23 and a minimum total error score of 1. Middle error scores of speakers were between 13.75-7% and the median was 9.5.

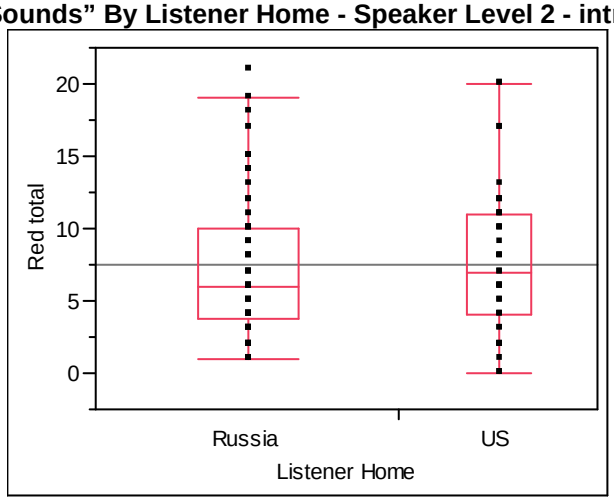


Quantiles

Level	Minimum	10%	25%	Median	75%	90%	Maximum
Russia	3	4	5.75	9.5	11.25	14	18
US	1	2.1	7	9.5	13.75	15.9	23

The largest of all the total error scores given by Russians in Russia to Introductory Level 2 speakers was 21 and the minimum was 20. The middle scores of the speakers ranged from 10-3.75% with a median of 6. Similarly, the largest of all the total error scores given by Russians in the US was 20 and the minimum was 0. The middle error score range extended from 11-4. The median was 7.

"Sounds" By Listener Home - Speaker Level 2 - intro

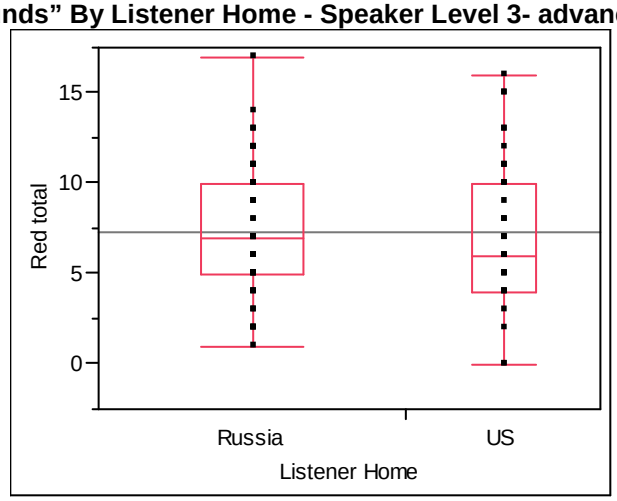


Quantiles

Level	Minimum	10%	25%	Median	75%	90%	Maximum
Russia	1	2	3.75	6	10	14.7	21
US	0	2	4	7	11	16.6	20

When analyzing the box plot of the number of errors Russians in Russia heard made by Level 3 speakers one sees that the total error score was 17 and the minimum was 1. The middle error scores of the speakers ranged from 10-5% with a median of 7. Similarly, Russians in the US gave a maximum total error score of 16 and a minimum of 0. The middle score range was 10-4% and the median was 6.

“Sounds” By Listener Home - Speaker Level 3- advanced

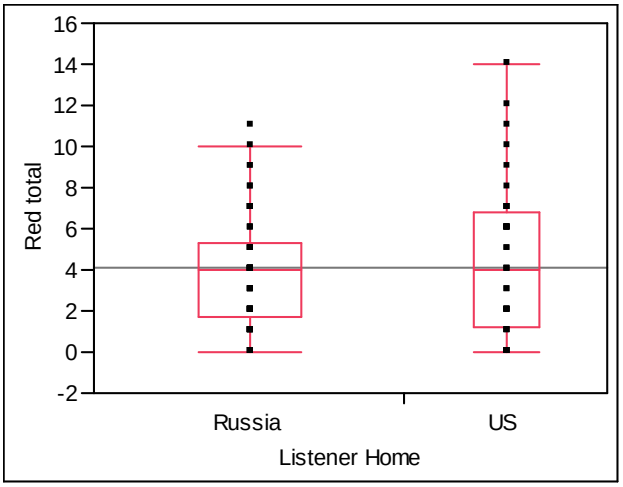


Quantiles

Level	Minimum	10%	25%	Median	75%	90%	Maximum
Russia	1	2.3	5	7	10	12	17
US	0	3	4	6	10	13	16

The highest of all the total error scores given to Advanced Level 4 speakers by Russians in Russia was 11 and the lowest number was 0. Speakers in this group received middle scores that ranged from 5.25-1.75%. However, the highest total error score given by Russians in the US was 14 and the lowest was 0. The range of middle error scores extended from 6.75-1.25%. The median for both groups was 4.

“Sounds” By Listener Home - Speaker Level 4 - advanced

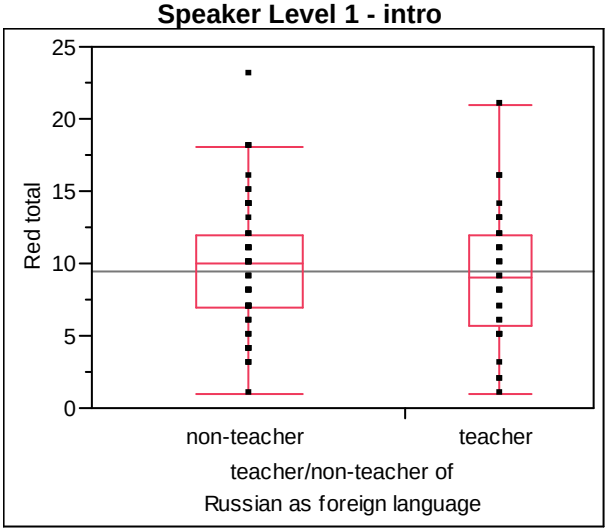


Quantiles

Level	Minimum	10%	25%	Median	75%	90%	Maximum
Russia	0	1	1.75	4	5.25	7.7	11
US	0	0	1.25	4	6.75	9.9	14

I now examine the range of scores that teachers and non-teachers of Russian as a Second Language gave to listeners in the "sounds" category. The maximum total error score that teachers gave to Introductory Level 1 speakers was 21, while the minimum error score was 1. The middle error scores fell between 12-5.75%, with a median score of 9. The maximum total error score that non-teachers gave to listeners was 23, while the minimum error score was 1. The middle range of error scores was 12-7%, with a median of 10.

"Sounds" By Teacher/Non-Teacher of Russian as Second Language Speaker Level 1 - intro



Quantiles

Level	Minimum	10%	25%	Median	75%	90%	Maximum
non-teacher	1	4	7	10	12	15	23
teacher	1	2.9	5.75	9	12	14.2	21

The maximum number of total error scores given to Introductory Level 2 speakers by teachers was 18 and the minimum was 0. The middle range of scores spanned from 10-4%, with a middle score of 6. Non-teachers, however, gave these speakers a maximum total error score of 21 and a minimum of error score of 1. Middle error scores fell between 11-3%. The median was 7

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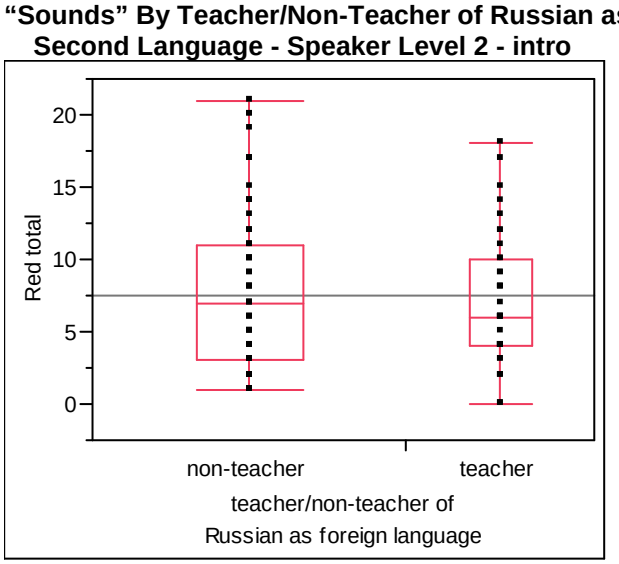
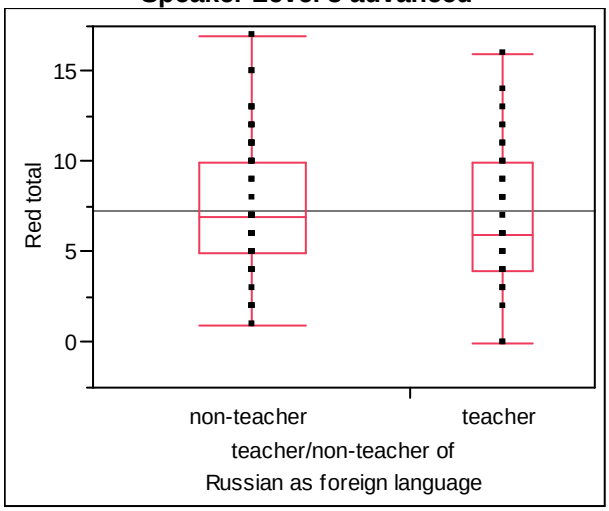


Quantiles

Level	Minimum	10%	25%	Median	75%	90%	Maximum
non-teacher	1	2	3	7	11	16	21
teacher	0	2	4	6	10	14.1	18

Teachers of Russian gave Advanced Level 3 speakers a maximum total error score of 16 and a minimum of 0. Additionally, the middle score range for these speakers stretched from 10-4. The median was 6. Non-teachers, conversely, gave a maximum total error score of 17 and a minimum of 1. The middle error scores given by these individuals ranged from 10-5, with a median of 7.

"Sounds" By Teacher/Non-Teacher of Russian as Second Language - Speaker Level 3 advanced

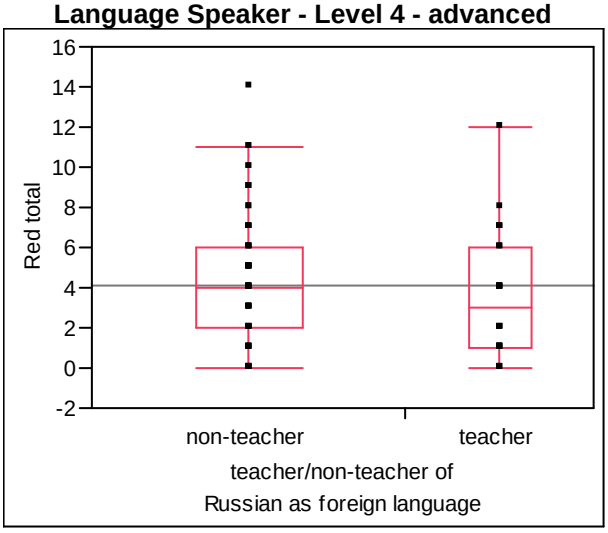


Quantiles

Level	Minimum	10%	25%	Median	75%	90%	Maximum
non-teacher	1	2.5	5	7	10	12.5	17
teacher	0	2.8	4	6	10	12.2	16

The maximum total error score given to Advanced Level 4 speakers by teachers was 12 and the minimum was 0. Middle error scores for speakers in this group fell between 6-1%, with a median of 3. The highest total error score given by non-teachers was 14, while the minimum was 0. The middle scores were 6-2%. The median was 4.

"Sounds" By Teacher/Non-Teacher of Russian as Second Language Speaker - Level 4 - advanced

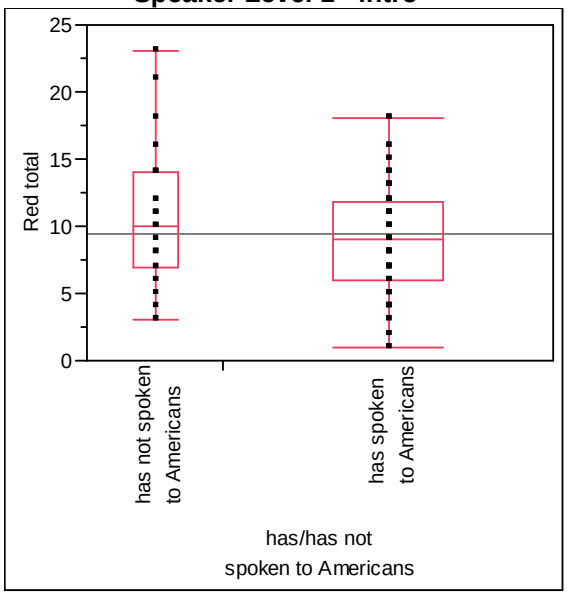


Quantiles

Level	Minimum	10%	25%	Median	75%	90%	Maximum
non-teacher	0	0	2	4	6	9	14
teacher	0	0	1	3	6	7	12

I now describe the results of research done with Russians who have or have not had prior contact with Americans and the data they provided for errors in "sounds." The maximum total error score given to Introductory Level 1 speakers by Russians who have had prior contact with Americans was 18, while the minimum total error score was 1. Russians who have not had prior contact with Americans, however, gave a maximum total error score of 23 and a minimum score of 3. Middle-range error scores for Russians who have had prior contact with Americans were 11.75-6%, with a median score of 9. However, scores in this middle range were higher for individuals who have not had prior contact with Americans, ranging from 14-7% with a median of 10.

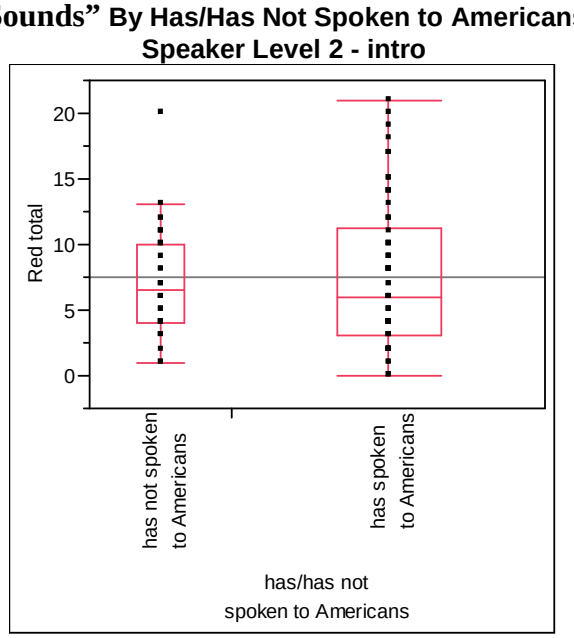
"Sounds" By Has/Has Not Spoken to Americans – Speaker Level 1 - intro



Quantiles

Level	Minimum	10%	25%	Median	75%	90%	Maximum
has not spoken to Americans	3	4.1	7	10	14	17.8	23
has spoken to Americans	1	4	6	9	11.75	14	18

Russians who have had prior contact with Americans gave Introductory Level 2 speakers a maximum total error score of 21, unlike Russians who have not had prior contact with Americans who gave a maximum total error score of 20. The minimum total error score for Russians in the former group was 0, while it was 1 for individuals in the latter group. The middle score range of errors that both groups heard was similar – 11.25-3% for participants who have had prior contact with Americans and 10-4% for those who have not. Finally, the median was 6 and 6.5 for both groups, respectively.

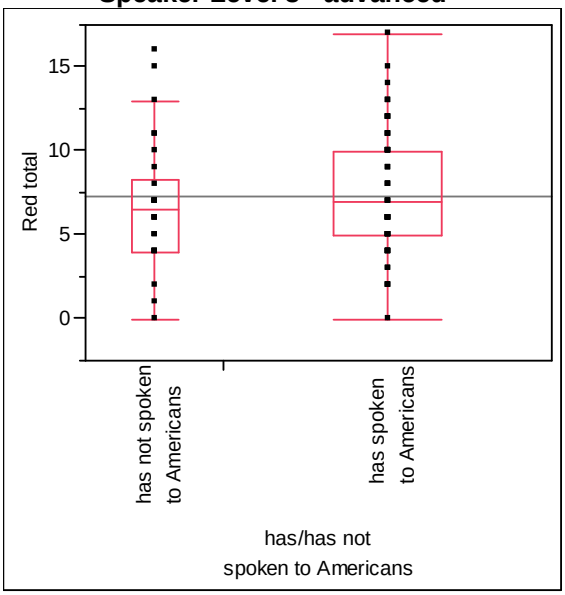


Quantiles

Level	Minimum	10%	25%	Median	75%	90%	Maximum
has not spoken to Americans	1	2.3	4	6.5	10	12	20
has spoken to Americans	0	2	3	6	11.25	16.8	21

The maximum total error score given to Advanced Level 3 speakers by Russians who have had prior contact with Americans was 17. The lowest number of errors these respondents gave was 0. 50% of the scores given by listeners in this group fell between 10-5%. The median was 7. The maximum error score given by Russians who have not had prior contact with Americans was 16, while the minimum score was 0. The middle scores given by listeners in this group were between 8.25-4%. The median was 6.5.

"Sounds" By Has/Has Not Spoken to Americans - Speaker Level 3 - advanced

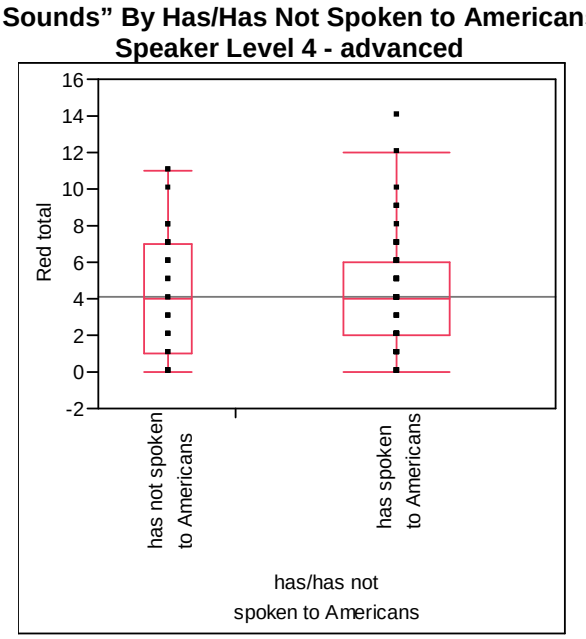


Quantiles

Level	Minimum	10%	25%	Median	75%	90%	Maximum
has not spoken to Americans	0	2.2	4	6.5	8.25	12.8	16
has spoken to Americans	0	3	5	7	10	12	17

Russians who have had prior contact with Americans gave Advanced Level 4 speakers a maximum total error score of 14, while Russians who have not had such contact gave a maximum total score of 11. The minimum number of error scores given by respondents in both groups was the same at 0, as was the median at 4. However, 50% of

the error scores given by Russians who have had prior contact with Americans was between 7-1%, while it was between 6-2% for their counterparts.

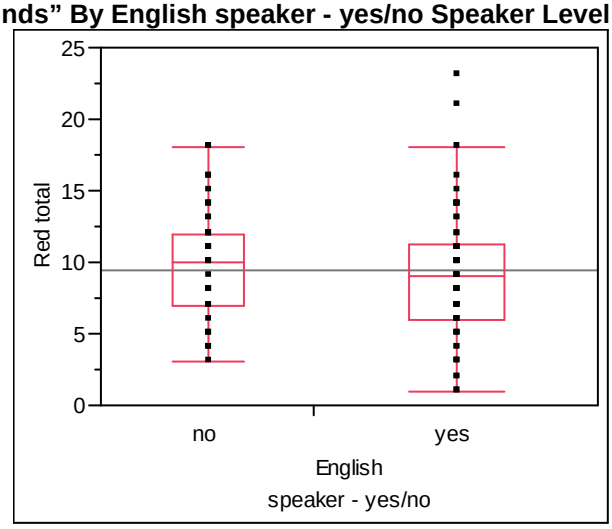


Quantiles

Level	Minimum	10%	25%	Median	75%	90%	Maximum
has not spoken to Americans	0	0	1	4	7	9.6	11
has spoken to Americans	0	1	2	4	6	7.8	14

The last group of participants who provided data about speaker errors in the "sounds" category are English-speaking and non-English-speaking Russians. The highest error score given to Introductory Level 1 speakers by English-speaking Russians was 23 and the minimum score was 1. Middle-range error scores fell between 11.25-6% with a median of 9. However, the highest total error score given by non-English-speaking Russians was 18 with a minimum total error score of 3. 50% of the error scores were between 12-7%. The median score was 10.

“Sounds” By English speaker - yes/no Speaker Level 1 - intro

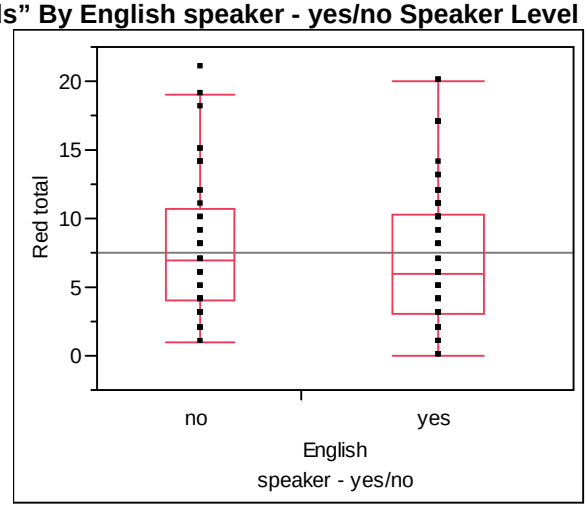


Quantiles

Level	Minimum	10%	25%	Median	75%	90%	Maximum
no	3	4.5	7	10	12	15.5	18
yes	1	3	6	9	11.25	14.1	23

The difference between maximum total error scores given by English-speaking and non-English-speaking Russians for Introductory Level 2 speakers is not as pronounced as for speakers in the previous group. The maximum total error score given to Level 2 speakers by English-speaking Russians was 20, while the minimum score was 0. The middle quartiles for error scores ranged from 10.25-3%. The median was 6. Non-English-speaking Russians gave a maximum total error score of 21 and a minimum score of 1. Middle-ranged scores were between 10.75-4%, with a median of 7.

“Sounds” By English speaker - yes/no Speaker Level 2 - intro

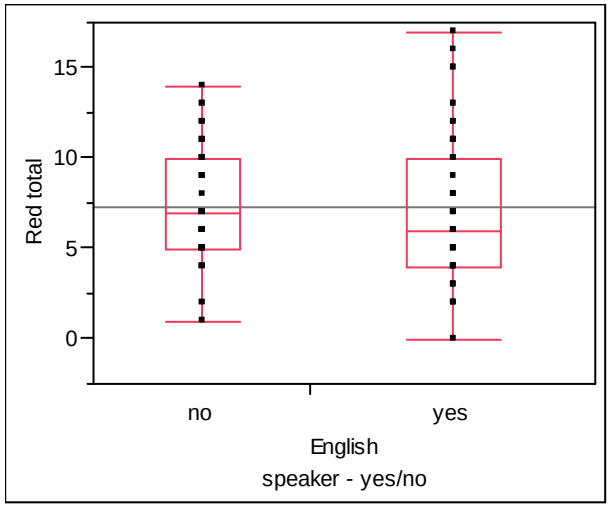


Quantiles

Level	Minimum	10%	25%	Median	75%	90%	Maximum
no	1	2	4	7	10.75	15	21
yes	0	1.9	3	6	10.25	14.3	20

The highest total error score noted by English-speaking Russians for Advanced Level 3 speakers in the “sounds” category was 16; the minimum score was 0. Middle-range scores were between 10-4%. The middle score was 6. Russians who do not speak English recorded a maximum total error score of 14 and a minimum score of 1. Scores in the middle 50% fell between 10-5% with a median of 7.

“Sounds” By English speaker - yes/no Speaker Level 3 - advanced

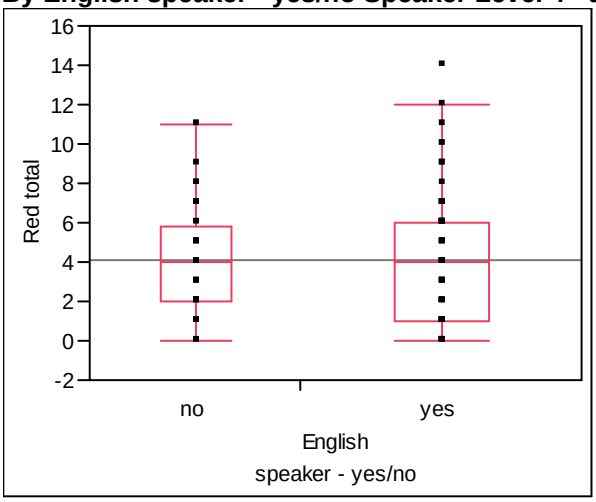


Quantiles

Level	Minimum	10%	25%	Median	75%	90%	Maximum
no	1	4	5	7	10	12	14
yes	0	2	4	6	10	13	17

The highest total error score given to Advanced Level 4 speakers by English-speaking Russians was 14, while the lowest was 0. The middle range for scores given by these listeners was between 6-1%. The maximum total error score that non-English-speaking Russians recorded was 11, while the minimum was 0. Scores in the middle 50% range fell between 5.75-2%. The median score for both groups was 4.

"Sounds" By English speaker - yes/no Speaker Level 4 - advanced



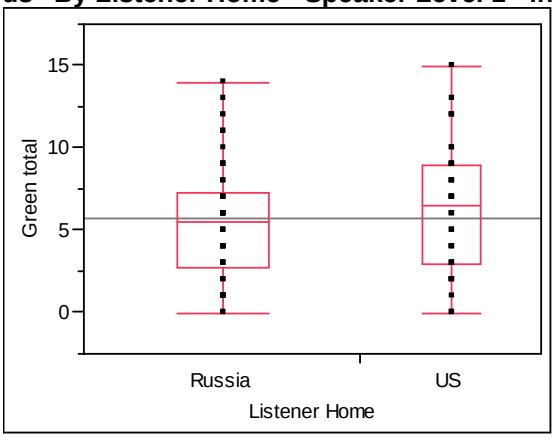
Quantiles

Level	Minimum	10%	25%	Median	75%	90%	Maximum
no	0	1	2	4	5.75	7.5	11
yes	0	0	1	4	6	9.1	14

In the next section I analyze the data provided by different listener groups regarding speaker level and the "words" category. I begin by examining the scores provided by Russians in Russia and the US.

There was little difference between maximum and minimum total error scores and middle-range error scores given to Introductory Level 1 speakers by Russians in Russia and in the US. The maximum total error score given to speakers by Russians in Russia was 14, while Russians in the US gave speakers a maximum total error score of 15. Both groups gave speakers a minimum score of 0. Middle-range error scores extended from 7.25-2.75% with a median of 5.5 from Russians in Russia, to 9-3% with a median of 6.5 from Russians in the US.

"Words" By Listener Home - Speaker Level 1 - intro

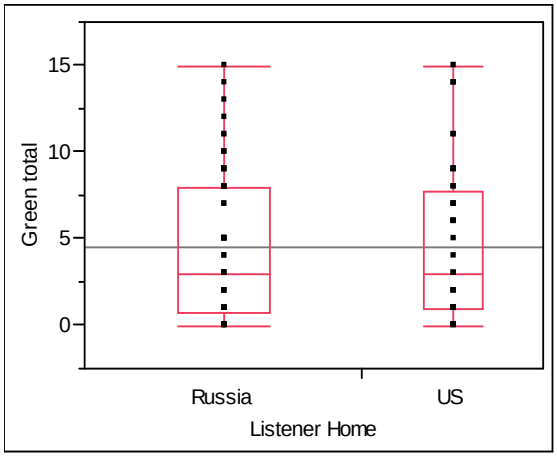


Quantiles

Level	Minimum	10%	25%	Median	75%	90%	Maximum
Russia	0	1	2.75	5.5	7.25	10.7	14
US	0	2	3	6.5	9	12	15

The data provided by both groups of Russian listeners for Introductory Level 2 shows that the highest total error score was 15 and the minimum was 0. However, the middle-range error scores were 8-0.75% from Russians in Russia and 7.75-1% from Russians in the US. The medians for both groups was 3.

"Words" by Listener Home – Speaker Level 2 - intro

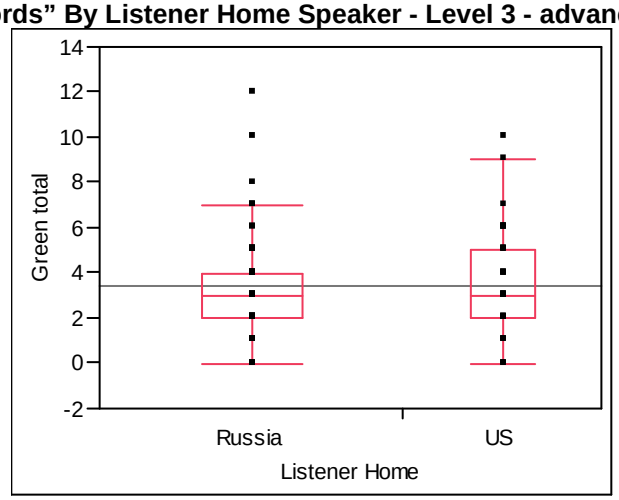


Quantiles

Level	Minimum	10%	25%	Median	75%	90%	Maximum
Russia	0	0	0.75	3	8	10.7	15
US	0	0	1	3	7.75	11	15

The maximum total error score given to Advanced Level 3 speakers by Russians in Russia was 12, while the minimum score was 0. The highest of all the total error scores given by Russians in the US was 8, and the minimum was also 0. Scores given by listeners fell between 2-0% in the middle range. The median of the scores given by Russians in Russia was 0.5, while it was 0 by Russians in the US.

"Words" By Listener Home Speaker - Level 3 - advanced

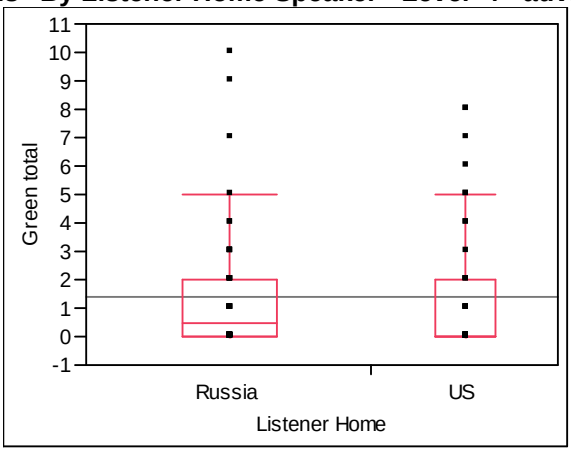


Quantiles

Level	Minimum	10%	25%	Median	75%	90%	Maximum
Russia	0	1	2	3	4	6.7	12
US	0	1	2	3	5	6	10

The highest number of total error scores given to Advanced Level 4 speakers by Russians in Russia was 10, while the minimum was 0. Russians in the US gave a maximum total error score of 8, and a minimum of 0. The middle range of scores was identical for both groups from 2-0%. The median of scores from Russians in Russia was 0.5, while it was 0 from the scores given by Russians in the US.

"Words" By Listener Home Speaker - Level 4 - advanced

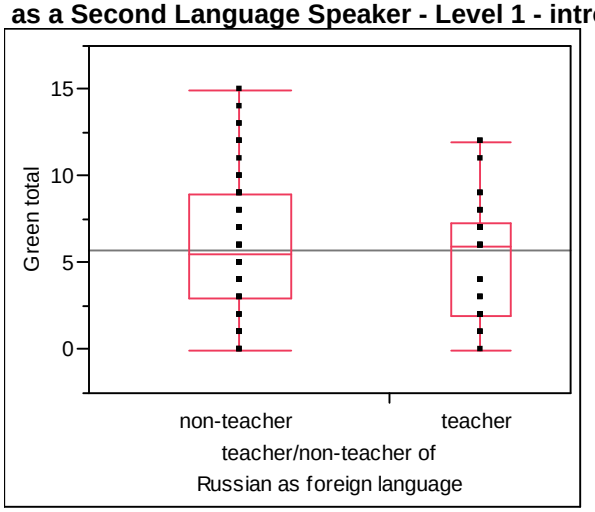


Quantiles

Level	Minimum	10%	25%	Median	75%	90%	Maximum
Russia	0	0	0	0.5	2	3.7	10
US	0	0	0	0	2	5.9	8

The highest total error score given to Introductory Level 1 speakers by teachers of Russian was 12, while the minimum score was 0. The middle range of scores spanned from 7.25-1%, with a median of 6. Non-teachers, however, gave speakers a maximum total error score of 15 and a minimum of 0. The range of middle scores given by these participants fell between 9-3%, with a median score of 5.5.

"Words" By Teacher/Non-Teacher of Russian as a Second Language Speaker - Level 1 - intro

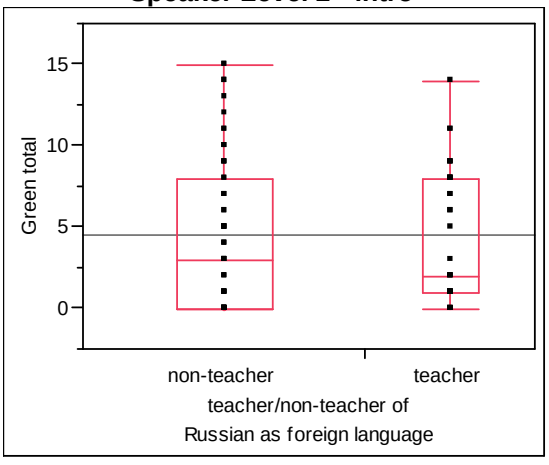


Quantiles

Level	Minimum	10%	25%	Median	75%	90%	Maximum
non-teacher	0	1	3	5.5	9	12	15
teacher	0	1	2	6	7.25	9.2	12

The highest total error scores given by teachers and non-teachers to Introductory Level 2 speakers were very similar – teachers gave a maximum total score of 14, while non-teachers gave a maximum total score of 15. Both groups gave a minimum score of 0. The middle range of scores given by teachers extended from 8-1% with a median of 2, and 8-0% for non-teachers with a median of 3.

"Words" By Teacher/Non-Teacher of Russian as Second Language Speaker Level 2 - intro

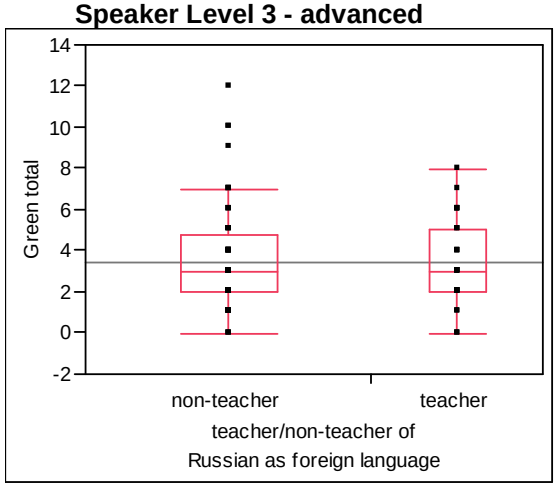


Quantiles

Level	Minimum	10%	25%	Median	75%	90%	Maximum
non-teacher	0	0	0	3	8	11.5	15
teacher	0	0	1	2	8	9.2	14

The difference in maximum total error scores given to Advanced Level 3 speakers by teachers and non-teachers was greater in the previous two speaker roups. Teachers gave a maximum total error score of 8 and minimum score of 0, while non-teachers gave a maximum total error score of 12 and also a minimum of 0. 50% of the middle-range scores given by the teachers fell between 5-2%, while the range of scores given by the non-teachers was 4.75%-2. The median scores for both groups were 3.

"Words" By Teacher/Non-Teacher of Russian as Second Language Speaker Level 3 - advanced



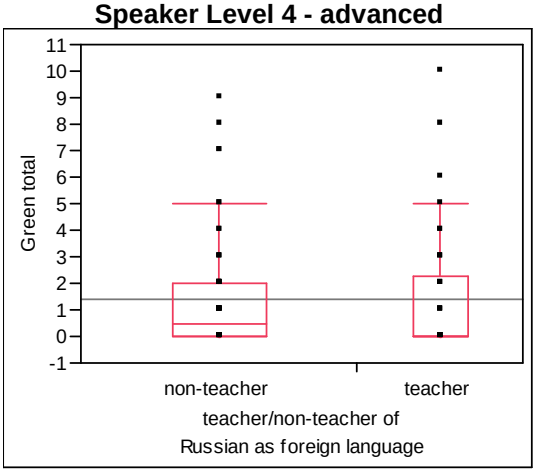
Quantiles

Level	Minimum	10%	25%	Median	75%	90%	Maximum
non-teacher	0	1	2	3	4.75	7	12
teacher	0	0.9	2	3	5	6	8

There was not great variation between the maximum and middle-range total error scores given to Advanced Level 4 speakers by teachers and non-teachers. The maximum total error score given by teachers was 10, while the minimum was 0. Among non-

teachers the highest total error score given was 9, while the minimum was 0. Scores that made up the middle 50% of values ranged from 2-0% from teachers and 2.25-0% from non-teachers. The median scores were 0.5 and 0, respectively.

"Words" By Teacher/Non-Teacher of Russian as Second Language Speaker Level 4 - advanced

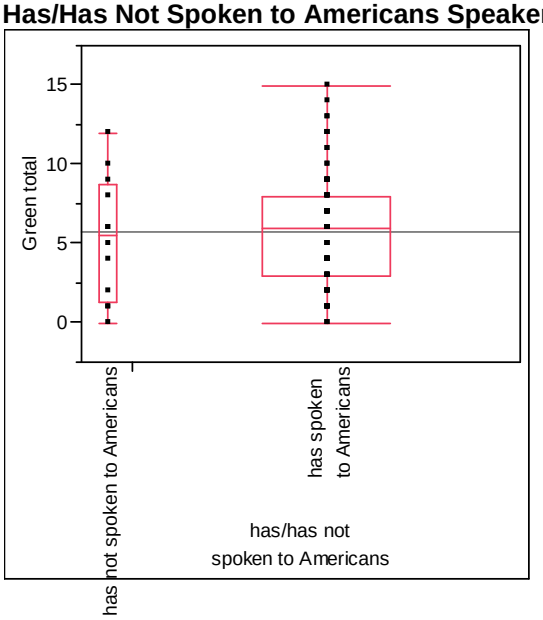


Quantiles

Level	Minimum	10%	25%	Median	75%	90%	Maximum
non-teacher	0	0	0	0.5	2	4.5	9
teacher	0	0	0	0	2.25	5.1	10

Slight differences were observed in the maximum total error scores Introductory Level 1 speakers received from Russians who have or have not had prior contact with Americans. For example, Russians who have had prior contact with Americans gave Introductory Level 1 speakers a maximum total error score of 15 and a minimum of 0. The middle scores given by these listeners ranged from 8-3% with a median of 6. Russians who have not had prior contact with Americans, however, gave a maximum total error score of 12 and a minimum of 0. Scores that represent 50% of the values range from 8.75-1.25%. The median was 5.5.

"Words" By Has/Has Not Spoken to Americans Speaker Level 1 - intro

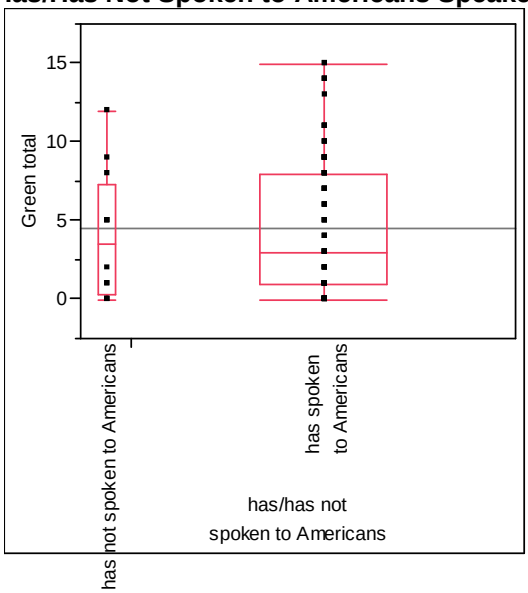


Quantiles

Level	Minimum	10%	25%	Median	75%	90%	Maximum
has not spoken to Americans	0	0.3	1.25	5.5	8.75	11.4	12
has spoken to Americans	0	1	3	6	8	11	15

Russians who have had prior contact with Americans gave Introductory Level 2 speakers a maximum total error score of 15 and a minimum score of 0. Scores in the 75-25% quartile ranged from 8-1 with a median of 3. Russians without such prior exposure gave a maximum total error score of 12, a minimum of 0, with middle–ranged scores between 7.25-0.25% and a median of 3.5.

"Words" By Has/Has Not Spoken to Americans Speaker Level=2 - intro

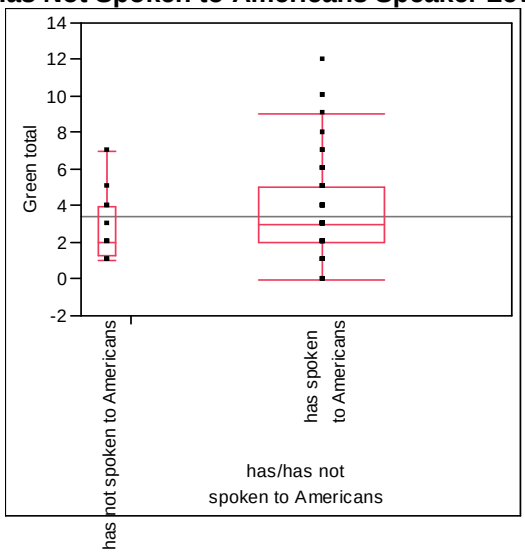


Quantiles

Level	Minimum	10%	25%	Median	75%	90%	Maximum
has not spoken to Americans	0	0	0.25	3.5	7.25	11.1	12
has spoken to Americans	0	0	1	3	8	11	15

Russians who have had prior contact with Americans gave Advanced Level 3 speakers a higher maximum total error score (i.e. 12) than Russians who have not had prior contact with Americans (i.e. 7). The middle-ranged scores given by the Russians who have spoken with Americans fell between 5-2% with a median of 3, while the scores given by Russians who have not had such prior exposure to Americans ranged from 4-1.25% with a median of 2.

"Words" By Has/Has Not Spoken to Americans Speaker Level 3 - advanced

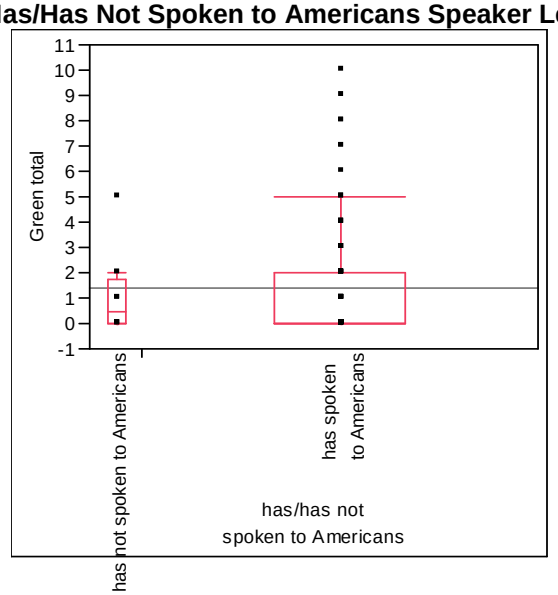


Quantiles

Level	Minimum	10%	25%	Median	75%	90%	Maximum
has not spoken to Americans	1	1	1.25	2	4	6.4	7
has spoken to Americans	0	1	2	3	5	6	12

The maximum total error scores Russians who have and have not had prior contact with Americans gave Advanced Level 4 speakers differed than for Advanced Level 3 speakers. In particular, Russians who have spoken with Americans recorded a maximum total error score of 10, a minimum score of 0 and middle-range scores between 2-0% with a median of 0. Alternatively, the highest total error sore from Russians who have not spoken with Americans was 5 and the minimum score as 0 with middle-range scores falling between 1.75-0%. The median was 0.5.

"Words" By Has/Has Not Spoken to Americans Speaker Level 4 - advanced



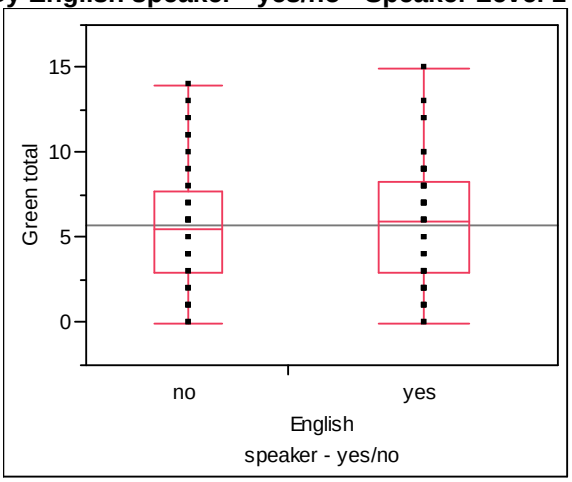
Quantiles

Level	Minimum	10%	25%	Median	75%	90%	Maximum
has not spoken to Americans	0	0	0	0.5	1.75	4.1	5
has spoken to Americans	0	0	0	0	2	4.9	10

I now examine the data provided by Russians who do and do not speak English regarding error distribution in the "words" category within speaker levels. It bears mentioning that there is not a great difference between the highest total error scores between Russians who speak English and those who do not. For instance, the maximum

total error score given to Introductory Level 1 speakers by English-speaking Russians was 15, the minimum was 0 and scores in the 75-25% range were 8.25-3% with a median of 6. The maximum total error score given by non-English-speaking Russians was 14, with a minimum of 0 and middle-range quartiles between 7.75-3% with a median of 5.5.

"Words" By English speaker - yes/no - Speaker Level 1 - intro

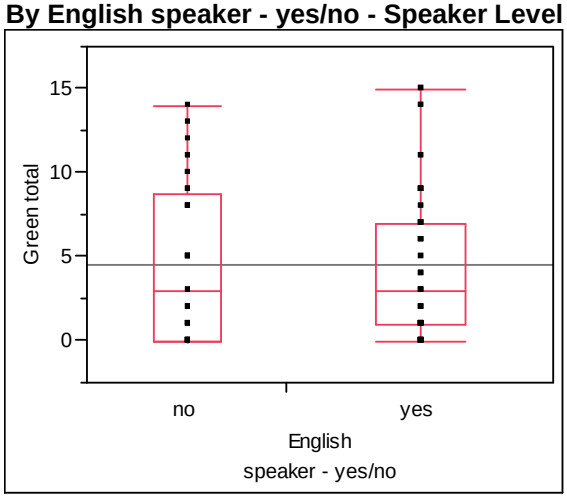


Quantiles

Level	Minimum	10%	25%	Median	75%	90%	Maximum
no	0	1	3	5.5	7.75	11.5	14
yes	0	1	3	6	8.25	10.2	15

The maximum total error score that English-speaking and non-English-speaking Russians gave Introductory Level 2 speakers was the same as that given to the previous group. The differences between the scores recorded for both groups are evident only when examining the middle quartiles, as they are 7-1% for scores given by English-speaking Russians, and 8.75-0% from non-English speaking participants. The median of the scores for both groups was 3.

"Words" By English speaker - yes/no - Speaker Level 2 - intro

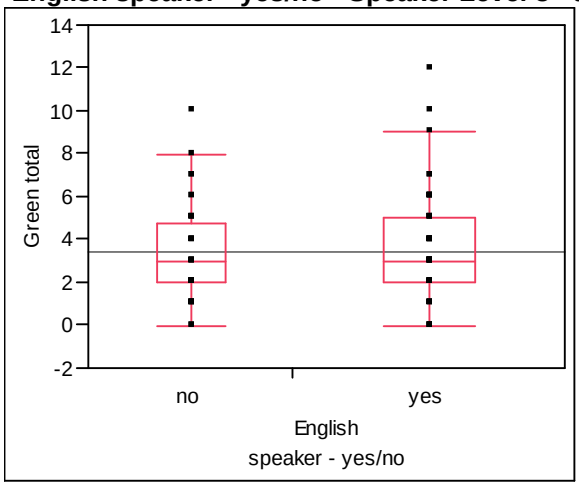


Quantiles

Level	Minimum	10%	25%	Median	75%	90%	Maximum
no	0	0	0	3	8.75	11	14
yes	0	0	1	3	7	11	15

English-speaking Russians gave Advanced Level 3 listeners a maximum total error score of 12 and a minimum score of 0. The middle range of scores given by this group was between 5-2% with a median score of 3. Non-English-speaking Russians gave this same group of listeners a maximum total error score of 10 and a minimum score of 0. Middle-range scores extended from 4.75-2% and a median of 3.

"Words" By English speaker - yes/no - Speaker Level 3 - advanced

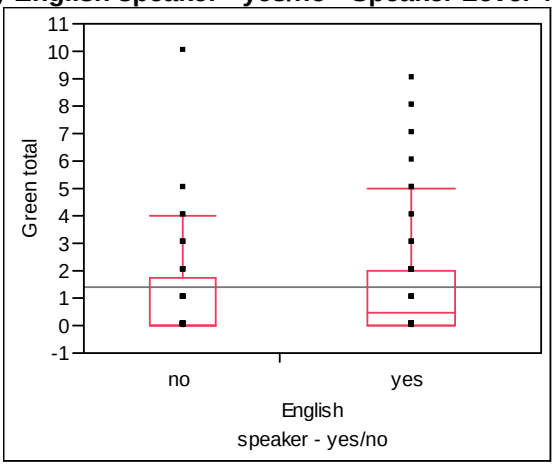


Quantiles

Level	Minimum	10%	25%	Median	75%	90%	Maximum
no	0	1	2	3	4.75	6.5	10
yes	0	1	2	3	5	6.1	12

The highest total error score given to the Advanced Level 4 listeners by English-speaking Russians was 9, while the maximum score was 10 from the non-English-speaking participants. The minimum score from both groups was 0. Scores given by the English-speaking participants in the middle quartile were between 2-0% with a median of 0.5. Among non-English-speaking participants the middle-range scores extended from 2-0% with a median of 0.

"Words" By English speaker - yes/no - Speaker Level 4 - advanced



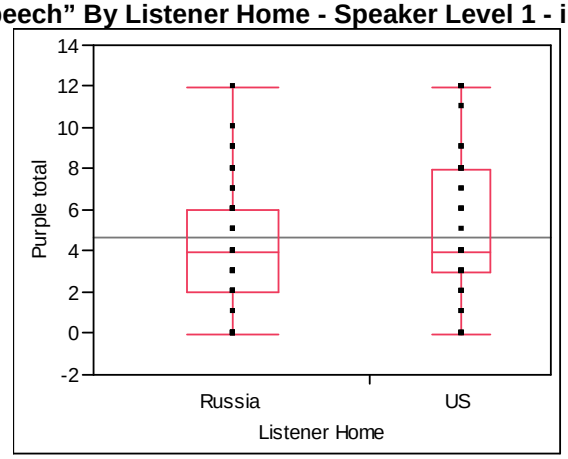
Quantiles

Level	Minimum	10%	25%	Median	75%	90%	Maximum
no	0	0	0	0	1.75	3.5	10
yes	0	0	0	0.5	2	6.1	9

The next section of my research examines speaker evaluations of "speech" scores. I begin with data from Russians in Russia and the US. Both groups gave Introductory Level 1 speakers a maximum total error score of 12 and a minimum score of 0. Scores given by Russians in Russia within the 75-25% range fell between 6-2% with a median

score of 4. Scores within this same range as given by Russians in the US were between 8-3% also with a median score of 4.

"Speech" By Listener Home - Speaker Level 1 - intro

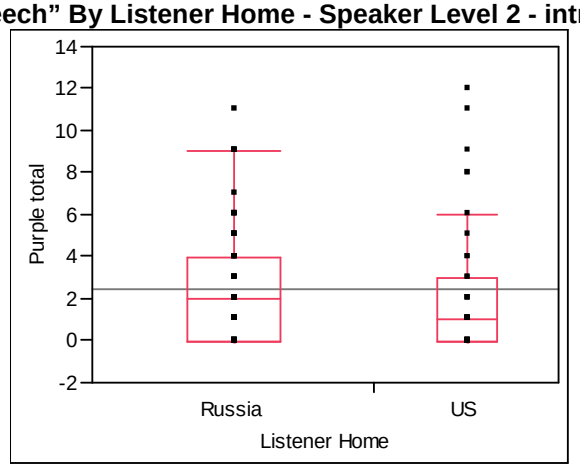


Quantiles

Level	Minimum	10%	25%	Median	75%	90%	Maximum
Russia	0	0	2	4	6	8	12
US	0	0.1	3	4	8	11.9	12

Although the maximum and minimum total error scores given to Introductory Level 2 speakers were not identical as for the previous speaker group, they were, nevertheless, similar, as Russians in Russia gave speakers a maximum total score of 11 and a minimum of 0. The highest total error score given by Russians in the US was 12 with a minimum score of 0. Middle-range scores given by Russians in Russia ranged from 4-0% with a median of 2, while scores from Russians in the US fell between 3-0% with a median score of 1.

"Speech" By Listener Home - Speaker Level 2 - intro

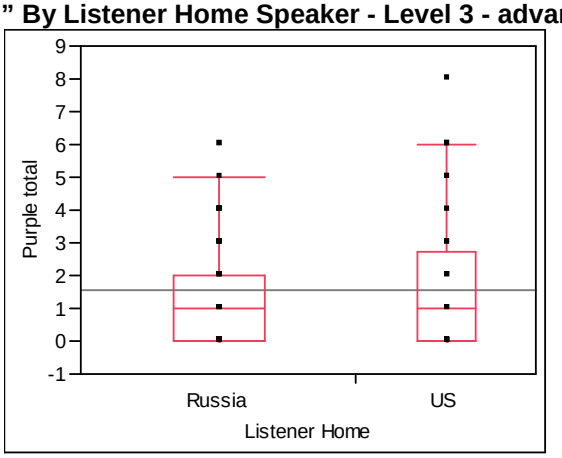


Quantiles

Level	Minimum	10%	25%	Median	75%	90%	Maximum
Russia	0	0	0	2	4	6.7	11
US	0	0	0	1	3	8	12

Maximum and minimum total error scores given by Russians in Russia and Russians in the US were identical for Advanced Level 3 and 4 speakers. In both cases, the highest total score that Russians in Russia gave these speakers was 6, while the maximum total score from Russians in the US was 8. Both groups gave a minimum score of 0. A slight difference exists, however, in the middle-range scores given to Level 3 and 4 speakers by these listeners. Middle-range scores given to Advanced Level 3 speakers by Russians in Russia ranged from 2-0%, while the scores that fell into this middle range from Russians in the US were slightly higher at 2.75-0%. The median score from both groups was 1. The middle-range scores given to Advanced Level 4 speakers by both groups were the same, stretching from 2-0% with a median of 0.

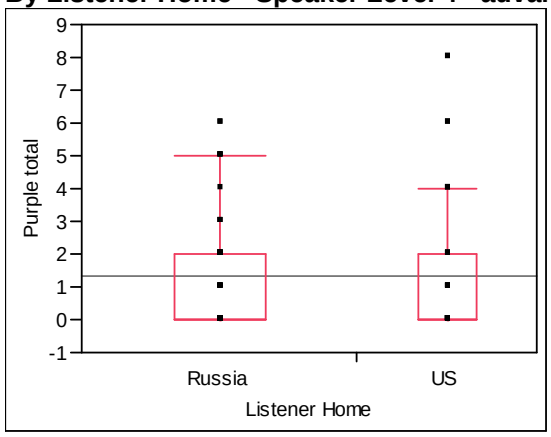
“Speech” By Listener Home Speaker - Level 3 - advanced



Quantiles

Level	Minimum	10%	25%	Median	75%	90%	Maximum
Russia	0	0	0	1	2	4	6
US	0	0	0	1	2.75	5.9	8

“Speech” By Listener Home - Speaker Level 4 - advanced

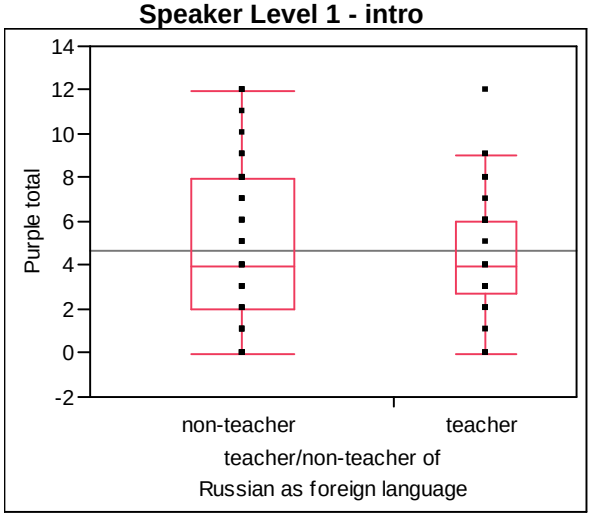


Quantiles

Level	Minimum	10%	25%	Median	75%	90%	Maximum
Russia	0	0	0	0	2	5	6
US	0	0	0	0	2	5.8	8

When looking at the maximum and minimum total error score that teachers and non-teachers of Russian gave to Introductory Level 1 speakers one sees that the highest and lowest total error scores for both groups were the same at 12 and 0, respectively. Scores given by teachers within the 75-25% quartile were between 8-2%, while scores given by non-teachers within this range fell between 6-2.75%. The median score from both groups was 4.

"Speech" total By Teacher/Non-Teacher of Russian as Second Language Speaker Level 1 - intro

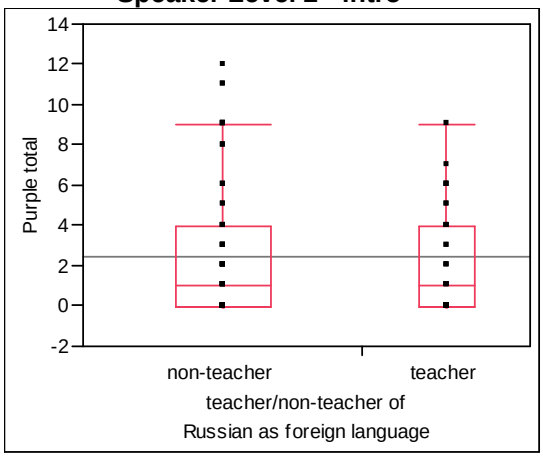


Quantiles

Level	Minimum	10%	25%	Median	75%	90%	Maximum
non-teacher	0	0	2	4	8	9.5	12
teacher	0	0.9	2.75	4	6	8.1	12

A significant difference exists between the maximum total error scores given to Introductory Level 2 speakers by teachers and non-teachers. These figures were 9 and 12, respectively. Both groups gave minimum scores of 0. In addition, the middle score range given by both groups was identical at 4-0% with a median of 1.

“Speech” By Teacher/Non-Teacher of Russian as Second Language
Speaker Level 2 - intro

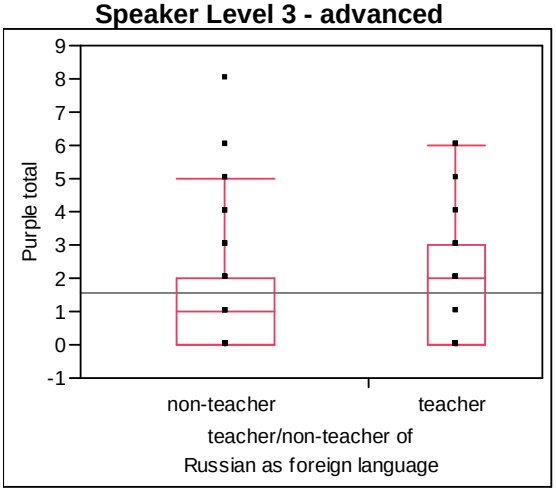


Quantiles

Level	Minimum	10%	25%	Median	75%	90%	Maximum
non-teacher	0	0	0	1	4	9	12
teacher	0	0	0	1	4	6	9

Teachers gave Advanced Level 3 speakers gave a maximum total error score of 6, while non-teachers gave a score of 8. Both groups gave a minimum score of 0. Scores in the middle quartile were 3-0% with a median of 2 from teachers, and 2-0% with a median of 1 from non-teachers.

“Speech” By Teacher/Non-Teacher of Russian as Second Language
Speaker Level 3 - advanced

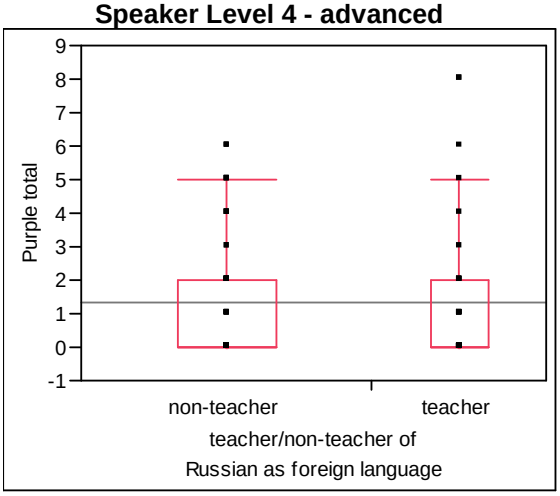


Quantiles

Level	Minimum	10%	25%	Median	75%	90%	Maximum
non-teacher	0	0	0	1	2	4	8
teacher	0	0	0	2	3	5.1	6

Teachers gave Advanced Level 4 speakers a maximum total score of 8, while non-teachers gave a score of 6. Both groups gave speakers a minimum score of 0. Moreover, middle-range scores given by listeners in both groups were identical at 2-0% with a median of 0.

"Speech" By Teacher/Non-Teacher of Russian as Second Language
Speaker Level 4 - advanced



Quantiles

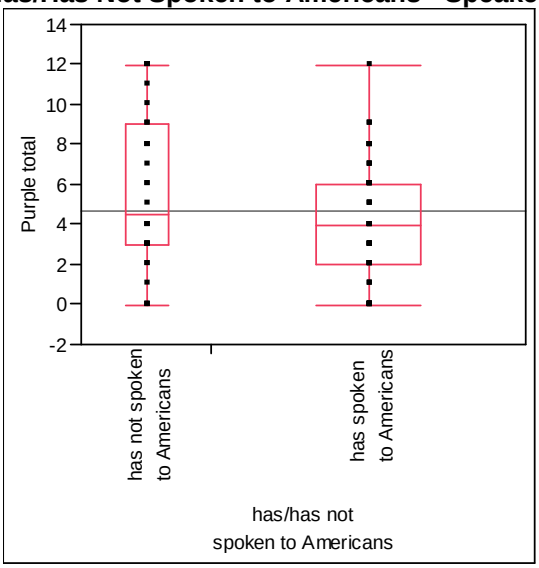
Level	Minimum	10%	25%	Median	75%	90%	Maximum
non-teacher	0	0	0	0	2	5	6
teacher	0	0	0	0	2	5.1	8

I now consider the data distribution of maximum and minimum total error scores, middle-range score quartiles and medians as they relate to statistics from Russians who have and have not had prior contact with Americans.

Listeners from both groups gave Introductory Level 1 speakers a maximum total error score of 12 and a minimum score of 0. Scores in the 75-25% quartile from Russians who have had prior contact with Americans ranged from 6-2% with a median score of 4.

However, middle-range scores from Russians who have not had prior contact with Americans were between 9-3% with a median of 4.5.

"Speech" By Has/Has Not Spoken to Americans - Speaker Level 1 - intro

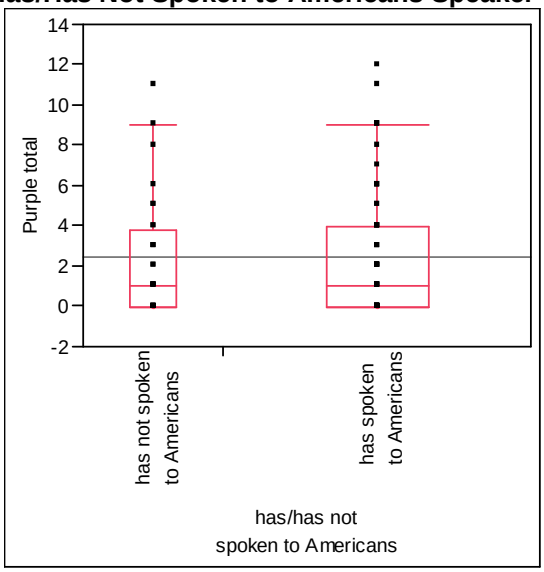


Quantiles

Level	Minimum	10%	25%	Median	75%	90%	Maximum
has not spoken to Americans	0	0.1	3	4.5	9	12	12
has spoken to Americans	0	0	2	4	6	8	12

When looking at the data distribution for Introductory Level 2 speakers one sees that the maximum total error score given by Russians who have had prior contact with Americans was 12, while it was 11 from those individuals who have not had prior contact with Americans. Both groups gave a minimum score of 0. Middle-range scores from Russians who have spoken with Americans were between 4-0% with a median score of 1. Scores in the mid-range quartile from Russians who have not spoken previously with Americans fell between 3.75-0% with a median of 1.

"Speech" By Has/Has Not Spoken to Americans Speaker - Level 2 - intro

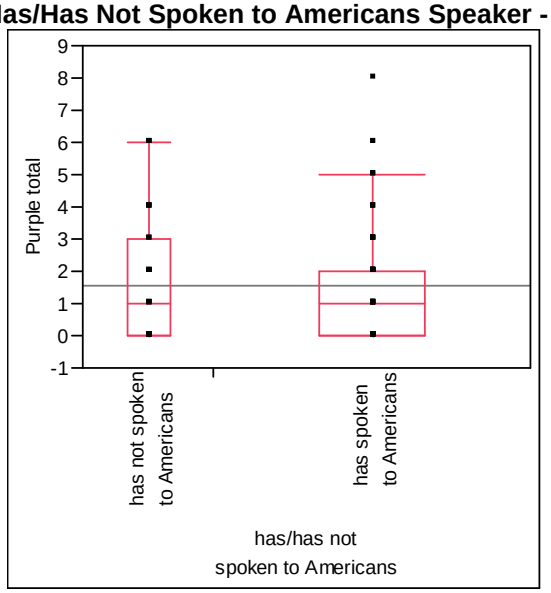


Quantiles

Level	Minimum	10%	25%	Median	75%	90%	Maximum
has not spoken to Americans	0	0	0	1	3.75	7.4	11
has spoken to Americans	0	0	0	1	4	7.9	12

The maximum total error score given to Advanced Level 3 speakers by Russians who have had prior contact with Americans was 8, while Russians who have not had such contact gave a maximum total score of 6. Both groups gave a minimum score of 0. Scores in the middle quartile range fell between 3-0% from Russians who have spoken previously with Americans, and 2-0% for those participants who were not in contact with Americans before. The median score from both groups was 1.

"Speech" By Has/Has Not Spoken to Americans Speaker - Level 3 - advanced

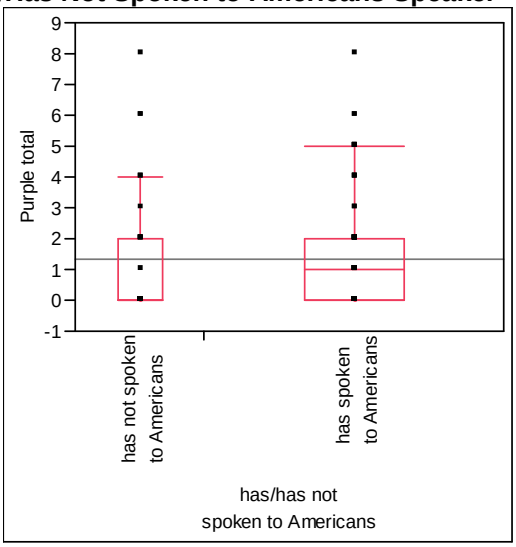


Quantiles

Level	Minimum	10%	25%	Median	75%	90%	Maximum
has not spoken to Americans	0	0	0	1	3	5.8	6
has spoken to Americans	0	0	0	1	2	4	8

The maximum and minimum total error scores given by both Russians who have and have not had prior contact with Americans were the same for Advanced Level 4 speakers at 8 and 0, respectively. In addition, the middle-score range was also identical for these two groups, falling between 2-0%. The median score from data provided by Russians who have had prior contact with Americans was 1, while it was 0 from scores given by Russians who have not had prior contact with Americans.

"Speech" By Has/Has Not Spoken to Americans Speaker - Level 4 - advanced

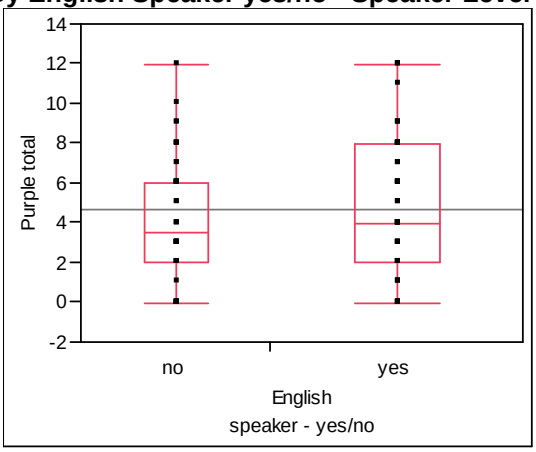


Quantiles

Level	Minimum	10%	25%	Median	75%	90%	Maximum
has not spoken to Americans	0	0	0	0	2	5.6	8
has spoken to Americans	0	0	0	1	2	5	8

Finally, I examine the data provided by English- and non-English-speaking Russians. Listeners in both groups gave Introductory Level 1 speakers a maximum total error score of 12 and a minimum score of 0. Scores in the middle range given by English-speaking Russians fell between 8-2% with a median of 4. Scores in the middle quartile from non-English-speaking Russians were between 6-2%. The median score was 3.5.

"Speech" By English Speaker yes/no - Speaker Level 1 - intro

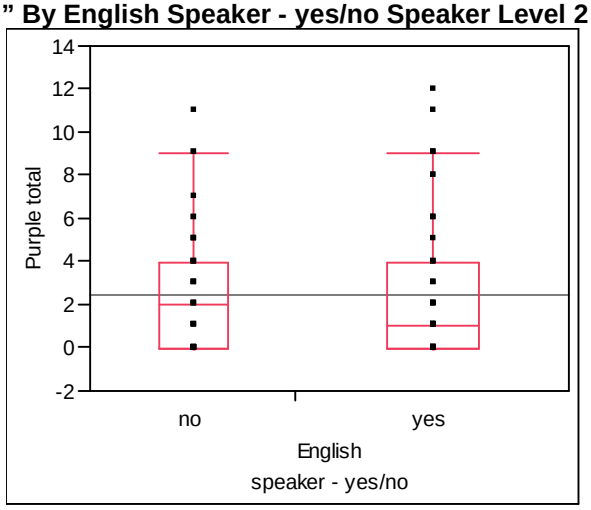


Quantiles

Level	Minimum	10%	25%	Median	75%	90%	Maximum
no	0	0	2	3.5	6	8.5	12
yes	0	0	2	4	8	9.2	12

English-speaking respondents gave Introductory Level 2 speakers a maximum total error score of 12 and a minimum score of 0. Non-English-speaking participants gave speakers in this group a maximum total error score of 11 and a minimum score of 0. The middle-range quartiles were identical from both groups at 4-0%. The medians differed, however. The median score from data given by Russians who speak English was 1, while it was 2 from those who do not.

"Speech" By English Speaker - yes/no Speaker Level 2 - intro

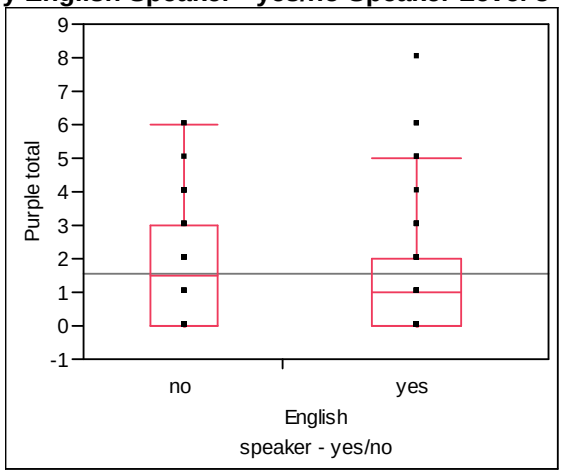


Quantiles

Level	Minimum	10%	25%	Median	75%	90%	Maximum
no	0	0	0	2	4	6.5	11
yes	0	0	0	1	4	8.1	12

English- and non-English-speaking Russians gave identical maximum and minimum total error scores to Advanced Level 3 and 4 speakers. In particular, the highest total error score given by Russians who speak English was 8, while it was 6 from non-English-speakers. Both groups gave the same minimum score of 0. Differences, although slight, appear when one examines the middle-range scores given by listeners from both groups. 50% of the scores for Advanced Level 3 speakers were between 2-0% from Russians who speak English, and 3-0% from non-English speakers. Middle-range quartiles for Advanced Level 4 speakers, however, were identical from in groups at 2-0%. Median scores of Advanced Level 3 and 4 speakers differed. In particular, the medians for Advanced Level 3 and 4 speakers were 1 and 1.5, respectively, from English-speaking Russians, and 0.5 and 0 for Level 3 and 4 speakers, respectively, from non-English speakers.

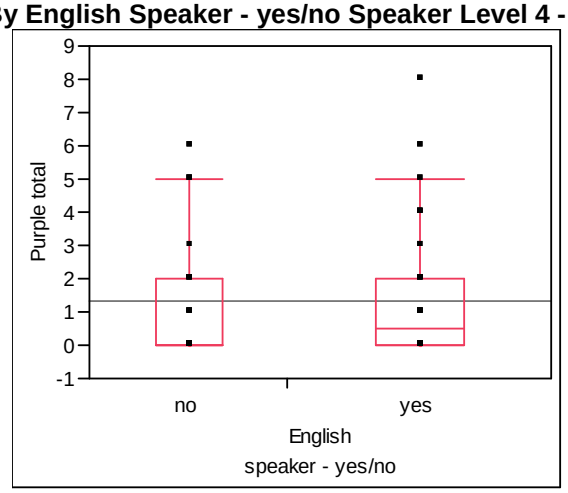
"Speech" By English Speaker - yes/no Speaker Level 3 - advanced



Quantiles

Level	Minimum	10%	25%	Median	75%	90%	Maximum
no	0	0	0	1.5	3	4	6
yes	0	0	0	1	2	5	8

"Speech" By English Speaker - yes/no Speaker Level 4 - advanced

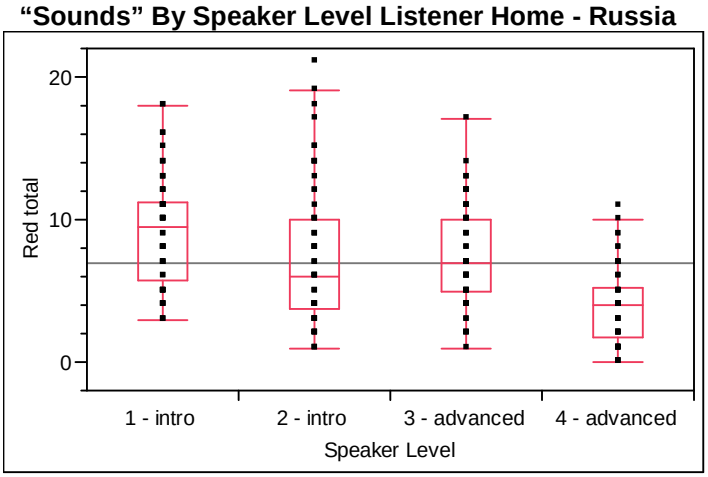


Quantiles

Level	Minimum	10%	25%	Median	75%	90%	Maximum
no	0	0	0	0	2	5	6
yes	0	0	0	0.5	2	5	8

In the next section of my analysis I examine my data by speaker levels, instead of listener groups, in order understand what the maximum and minimum total error scores were for each level, as well as the medium quantiles and median scores. I begin by focusing on scores given to each speaker level in the "sounds" category by Russians in Russia and the US.

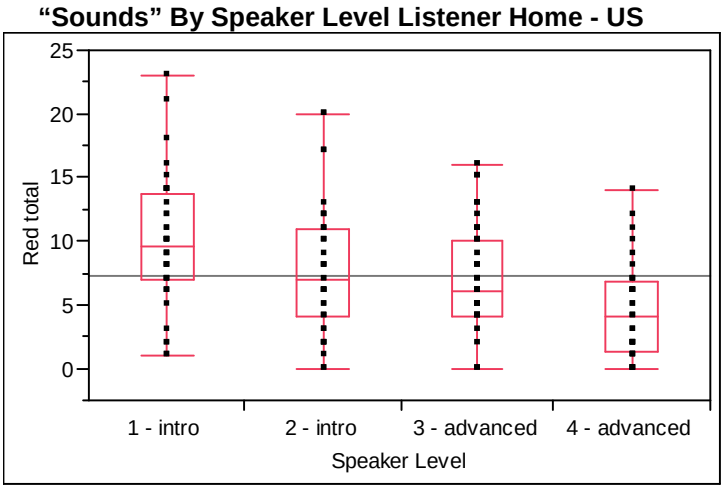
The maximum total error scores given to Introductory Level 1 and 2 and Advanced 3 and 4 speakers by Russians who live in Russia were 18, 21, 17 and 11, while minimum scores were 3, 1, 1 and 0, respectively. Middle-range scores for these same speakers were 11.25-5.75% with a median of 9.5 for Introductory Level 1 speakers, 10-3.75% with a median of 6 for Introductory Level 2 speakers, 10-5% with a median of 7 for Advanced Level 3 speakers, and 5.25-1.75% with a median of 4 for Advanced Level 4 speakers.



Quantiles

Level	Minimum	10%	25%	Median	75%	90%	Maximum
1 - intro	3	4	5.75	9.5	11.25	14	18
2 - intro	1	2	3.75	6	10	14.7	21
3 - advanced	1	2.3	5	7	10	12	17
4 - advanced	0	1	1.75	4	5.25	7.7	11

Russians in the US gave Introductory Level 1 speakers a maximum total error score of 23, Introductory Level 2 speakers received a score of 20, Advanced Level 3 speakers were given a score of 16, and Advanced Level 4 speakers had a maximum total error score of 14. The Introductory Level 1 speakers received a minimum error score of 1, while this figure was 0 for all the other speaker levels. Scores in the 75-25% range for Introductory Level 1 speakers fell between 13.75-7% with a median of 9.5, 11-4% with a median of 7 for Introductory Level 2 speakers, 10-4% with a median of 6 for Advanced Level 3 speakers, and 6.75-1.25% with a median of 4 for Advanced Level 4 speakers.

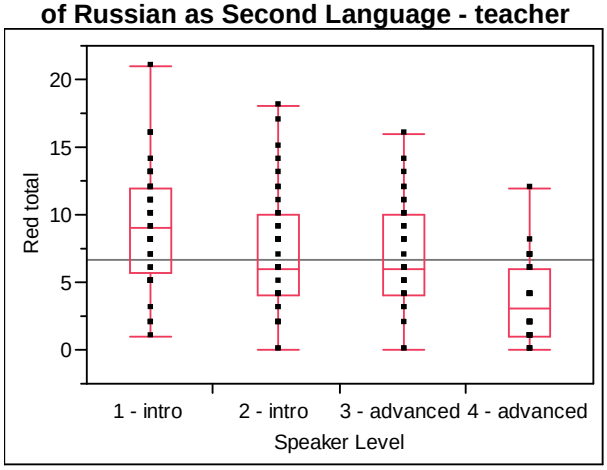


Quantiles

Level	Minimum	10%	25%	Median	75%	90%	Maximum
1 - intro	1	2.1	7	9.5	13.75	15.9	23
2 - intro	0	2	4	7	11	16.6	20
3 - advanced	0	3	4	6	10	13	16
4 - advanced	0	0	1.25	4	6.75	9.9	14

When considering scores given by teachers and non-teachers of Russian as a Second Language one notices that the non-teachers gave higher maximum total error scores than the teachers. Specifically, teachers gave Introductory Level 1 speakers a maximum total error score of 21, Introductory Level 2 speakers a score of 18, Advanced Level 3 speakers received a maximum total error score of 16 and Advanced Level 4 speakers were given a score of 12. All speaker levels received a minimum score of 0, except for the Introductory Level 1 speakers whose minimum score was 1. Scores for each speaker level in the 50% quartile were: 12-5.75% with a median of 9 for Introductory Level 1 speakers, 10-4% with a median of 6 for Introductory Level 2 and Advanced Level 3 speakers, and 6-1% with a median of 3 for Advanced Level 4 speakers.

"Sounds" By Speaker Level Teacher/Non-Teacher of Russian as Second Language - teacher

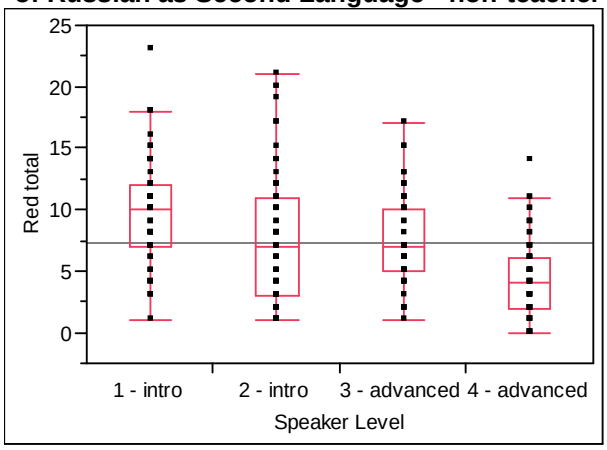


Quantiles

Level	Minimum	10%	25%	Median	75%	90%	Maximum
1 - intro	1	2.9	5.75	9	12	14.2	21
2 - intro	0	2	4	6	10	14.1	18
3 - advanced	0	2.8	4	6	10	12.2	16
4 - advanced	0	0	1	3	6	7	12

Non-teachers gave Introductory Level 1 speakers a maximum total error score of 23, while this total was 21 for Introductory Level 2 speakers, 17 for Advanced Level 3 speakers and 14 for Advanced Level 4 speakers . The minimum score for groups 1-3 was 1 and 0 for the Advanced Level 4 speakers. Scores in the middle range fell between 12-7% with a median of 10 for Introductory Level 1 speakers, 11-3% with a median of 7 for Introductory Level 2 speakers, 10-5% with a median of 7 for Advanced Level 3 speakers and 6-2% with a median of 4 for Advanced Level 4 speakers.

"Sounds" By Speaker Level Teacher/Non-Teacher of Russian as Second Language - non-teacher

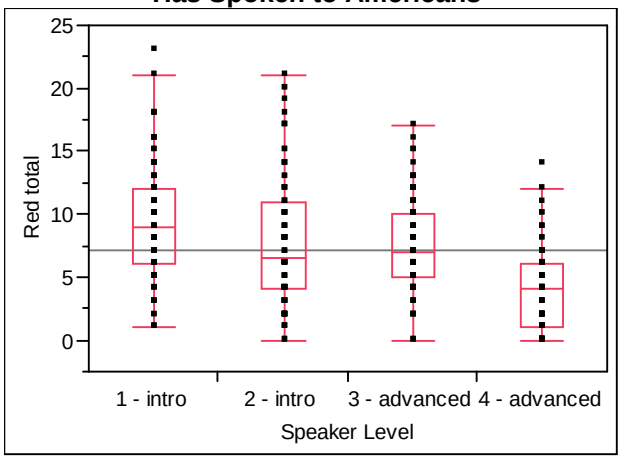


Quantiles

Level	Minimum	10%	25%	Median	75%	90%	Maximum
1 - intro	1	4	7	10	12	15	23
2 - intro	1	2	3	7	11	16	21
3 - advanced	1	2.5	5	7	10	12.5	17
4 - advanced	0	0	2	4	6	9	14

Russians who have had prior contact with Americans gave higher maximum total error scores but lower minimum scores to speakers of all levels than those who have not had such prior contact. Russians who have previously spoken to Americans gave Introductory 1 and 2 and Advanced 3 and 4 speakers maximum total error scores of 23, 21, 17 and 14, respectively. Minimum error scores given by those same listeners were 1, 0, 0 and 0. Middle-range scores and medians for Introductory Level 1 speakers were 12-6% with a median score of 9, 11-4% with a median of 6.5 for Introductory Level 2 speakers, 10-5% with a median of 7 for Advanced Level 3 speakers and 6-1% with a median of 4 for Advanced Level 4 speakers.

"Sounds" By Speaker Level Has/Has Not Spoken to Americans – Has Spoken to Americans

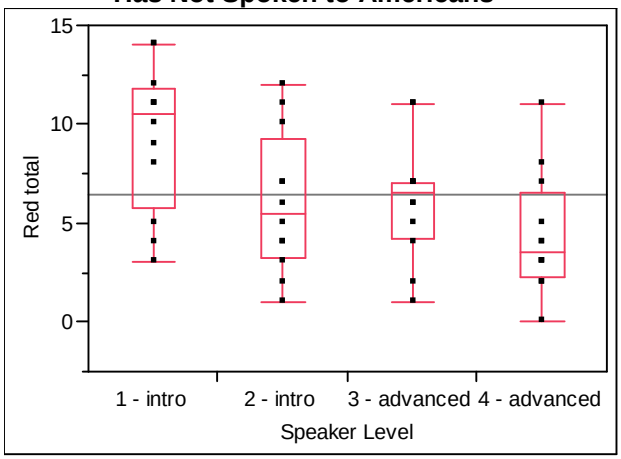


Quantiles

Level	Minimum	10%	25%	Median	75%	90%	Maximum
1 - intro	1	4	6	9	12	15	23
2 - intro	0	2	4	6.5	11	15	21
3 - advanced	0	3	5	7	10	13	17
4 - advanced	0	0	1	4	6	8	14

Maximum total error scores given by Russians who have not had prior contact with Americans were lower than those given by their counterparts. Specifically, scores for Introductory Level 1 and 2 and Advanced Level 3 and 4 speakers were 14, 12, 11 and 11, while minimum scores were 3, 1, 1 and 0, respectively. Scores in the middle quartile and medians for speakers of these levels were from 11.75-5.57% with a median of 10.5 for Introductory Level 1 speakers, 9.25-3.25% with a median of 5.5 for Introductory Level 2 speakers, 7-4.25% with a median of 6.5 for Advanced Level 3 speakers and 6.5-2.25% with a median of 3.5 for Advanced Level 4 speakers.

"Sounds" By Speaker Level Has/Has Not Spoken to Americans - Has Not Spoken to Americans

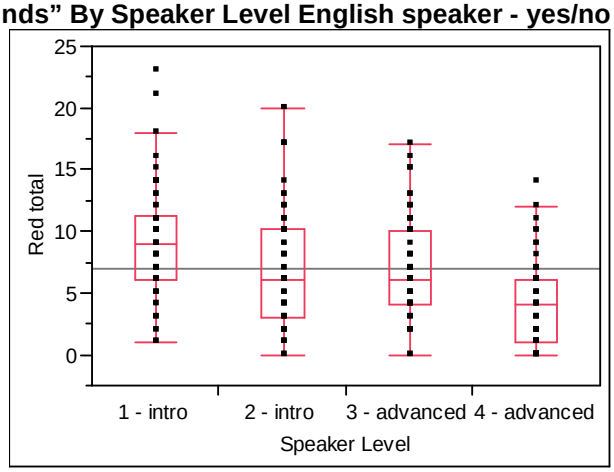


Quantiles

Level	Minimum	10%	25%	Median	75%	90%	Maximum
1 - intro	3	3.3	5.75	10.5	11.75	14	14
2 - intro	1	1.3	3.25	5.5	9.25	11.7	12
3 - advanced	1	1.3	4.25	6.5	7	11	11
4 - advanced	0	0.6	2.25	3.5	6.5	10.1	11

Russians who speak English gave Introductory Level 1 speakers a maximum total error score of 23, Introductory Level 2 received a maximum score of 20, Advanced Level 3 speakers were given a maximum score of 17 and Advanced Level 4 speakers had a maximum score of 14. The Introductory Level 1 speakers were given a minimum score of 1; the other three speaker levels had a minimum score of 0. Scores in the 50% range for Introductory Level 1 speakers were between 11.25-6% with a median of 9, 10.25-3% with a median of 6 for Introductory Level 2 speakers, 10-4% with a median of 6 for Advanced Level 3 speakers and 6-1% with a median of 4 for Advanced Level 4 speakers.

“Sounds” By Speaker Level English speaker - yes/no - yes

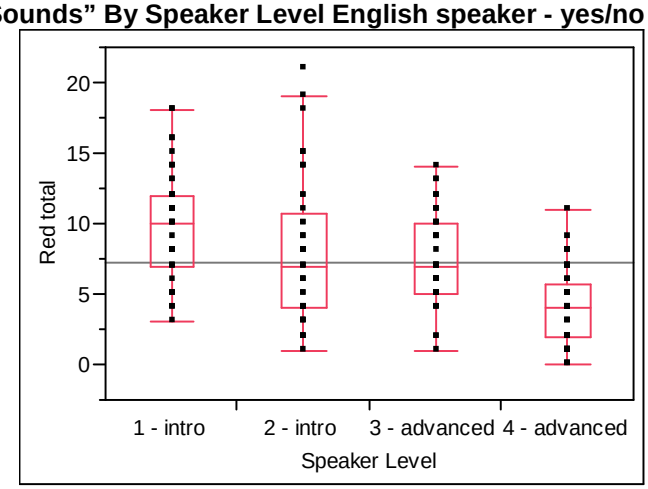


Quantiles

Level	Minimum	10%	25%	Median	75%	90%	Maximum
1 - intro	1	3	6	9	11.25	14.1	23
2 - intro	0	1.9	3	6	10.25	14.3	20
3 - advanced	0	2	4	6	10	13	17
4 - advanced	0	0	1	4	6	9.1	14

Russians who do not speak English gave Introductory Level 1 and 2 and Advanced Level 3 and 4 speakers maximum total error scores of 18, 21, 14 and 11 and minimum scores of 3, 1, 1 and 0, respectively. Scores in the 75-25% quartile for Introductory Level 1 speakers fell between 12-7% with a median of 10, 10.75-4% with a median of 7 for Introductory Level 2 speakers, 10-5% with a median of 7 for Advanced Level 3 speakers and 5.75-2% with a median of 4 for Advanced Level 4 speakers.

“Sounds” By Speaker Level English speaker - yes/no - no

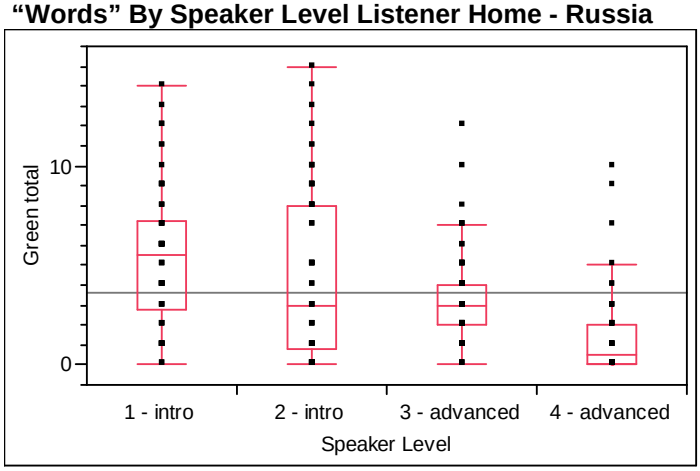


Quantiles

Level	Minimum	10%	25%	Median	75%	90%	Maximum
1 - intro	3	4.5	7	10	12	15.5	18
2 - intro	1	2	4	7	10.75	15	21
3 - advanced	1	4	5	7	10	12	14
4 - advanced	0	1	2	4	5.75	7.5	11

When analyzing speaker totals given by Russians in Russia and the US in the “words” category one notices that the maximum total error scores for Introductory Level 1 and 2 and Advanced Level 3 and 4 speakers from Russians in Russia are 14, 15, 12, 10 and 4, respectively, with minimum scores of 0 for all speaker levels. For Introductory Level 1 speakers middle-range scores were between 7.25-2.75% with a median of 5.5, for Introductory Level 2 speakers this range extended from 8-0.75% with a median of 3, for Advanced Level 3 speakers it stretched from 4-2% with a median of 3 and for Advanced Level 4 speakers this range fell between 2-0% with a median of 0.5.

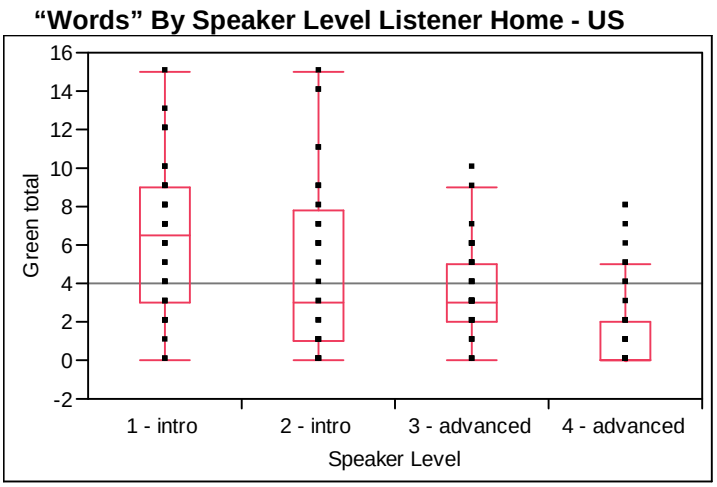
"Words" By Speaker Level Listener Home - Russia



Quantiles

Level	Minimum	10%	25%	Median	75%	90%	Maximum
1 - intro	0	1	2.75	5.5	7.25	10.7	14
2 - intro	0	0	0.75	3	8	10.7	15
3 - advanced	0	1	2	3	4	6.7	12
4 - advanced	0	0	0	0.5	2	3.7	10

The maximum total error scores given by Russians in the US to Introductory Level 1 and 2 and Advanced Level 3 and 4 speakers were 15, 15, 10 and 8, respectively. All speaker levels received minimum scores of 0. Middle-range quartile scores for Introductory Level 1 speakers were between 9-3% with a median of 6.5, for Introductory Level 2 speakers this range was between 7.75-1% with a median of 3, for Advanced Level 3 speakers it was 5-2% with a median of 3 and for Advanced Level 4 speakers middle-range scores were between 2-0% with a median of 0.

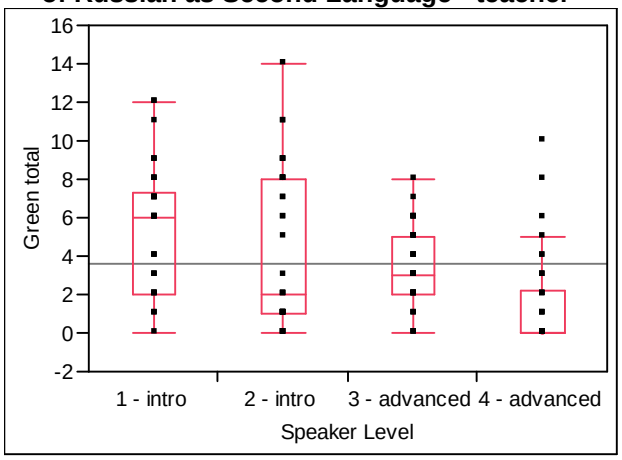


Quantiles

Level	Minimum	10%	25%	Median	75%	90%	Maximum
1 - intro	0	2	3	6.5	9	12	15
2 - intro	0	0	1	3	7.75	11	15
3 - advanced	0	1	2	3	5	6	10
4 - advanced	0	0	0	0	2	5.9	8

The maximum total error scores given to speakers of all levels by teachers of Russian as a Second Language were lower than those scores given by non-teachers. Teachers gave Introductory Level 1 speakers, for example, a maximum total error score of 12, Introductory Level 2 speakers received a score of 14, Advanced Level 3 speakers were given a score of 8 and Advanced Level 4 speakers had a maximum total error score of 10. The minimum score that teachers gave to speakers in all categories was 0. Middle-range scores for Introductory Level 1 speakers were 7.25-2% with a median score of 6, for Introductory Level 2 speakers this range was 8-1% with a median of 2, for Advanced Level 3 speakers it was 5-2% with a median of 3 and for Advanced Level 4 speakers it was 2.25-0% with a median of 0.

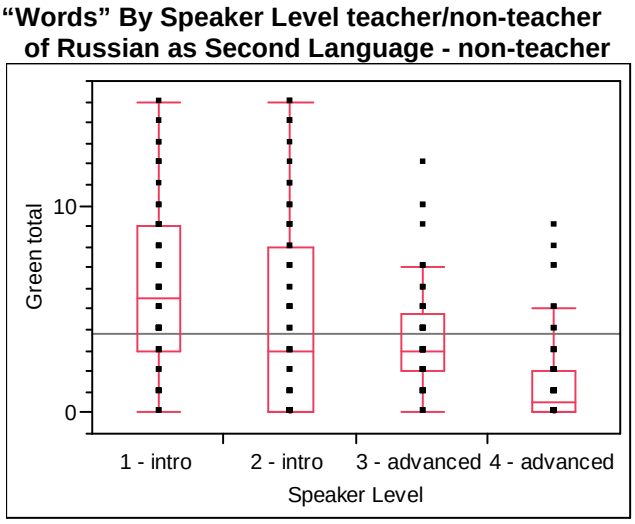
"Words" By Speaker Level teacher/non-teacher of Russian as Second Language - teacher



Quantiles

Level	Minimum	10%	25%	Median	75%	90%	Maximum
1 - intro	0	1	2	6	7.25	9.2	12
2 - intro	0	0	1	2	8	9.2	14
3 - advanced	0	0.9	2	3	5	6	8
4 - advanced	0	0	0	0	2.25	5.1	10

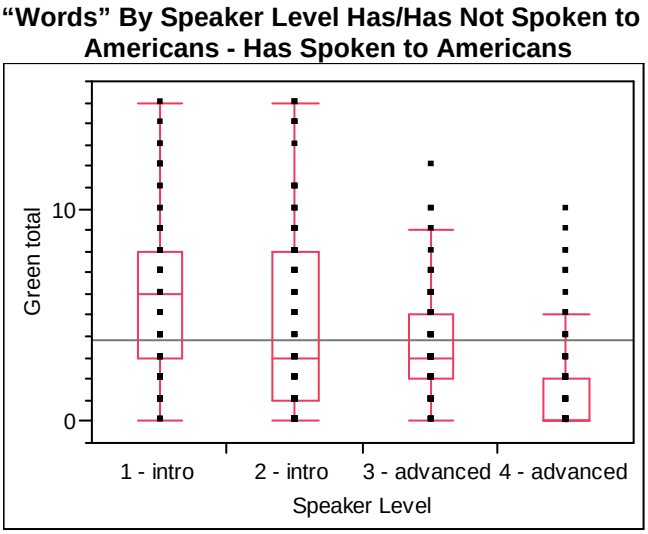
The maximum total error score given by non-teachers to Introductory Level 1 and 2 speakers was 15, to Advanced Level 3 speakers it was 12 and to Advanced Level 4 speakers it was 9. All levels received a minimum score of 0. 50% of the scores for Introductory Level 1 speakers were between 9-3% with a median of 5.5, between 8-0% with a median of 3 for Introductory Level 2 speakers, from 4.75-2% with a median of 3 for Advanced Level 3 speakers and they ranged from 2-0% with a median of 0.5 for Advanced Level 4 speakers.



Quantiles

Level	Minimum	10%	25%	Median	75%	90%	Maximum
1 - intro	0	1	3	5.5	9	12	15
2 - intro	0	0	0	3	8	11.5	15
3 - advanced	0	1	2	3	4.75	7	12
4 - advanced	0	0	0	0.5	2	4.5	9

Russians who have had prior contact with Americans gave higher maximum total error scores than those who have not previously spoken with Americans. The highest error score given by Russians to Introductory Level 1 and 2 speakers who have had prior contact with Americans was 15. This number was 12 for Advanced Level 3 speakers and 10 for Advanced Level 4 speakers. 50% of the scores fell between 8-3% with a median of 6 for Introductory Level 1 speakers, between 8-1% with a median of 3 for Introductory Level 2 speakers, between 5-2% with a median of 5 for Advanced Level 3 speakers and between 2-0% with a median of 0 for Advanced Level 4 speakers.

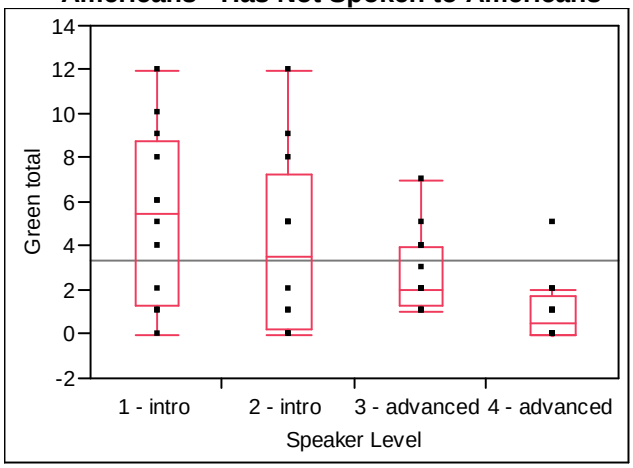


Quantiles

Level	Minimum	10%	25%	Median	75%	90%	Maximum
1 - intro	0	1	3	6	8	11	15
2 - intro	0	0	1	3	8	11	15
3 - advanced	0	1	2	3	5	6	12
4 - advanced	0	0	0	0	2	4.9	10

Russians who have not had previous contact with Americans gave Introductory Level 1 and 2 speakers a maximum total error score of 12, Advanced Level 3 speakers received a score of 7 and Advanced Level 4 speakers were given a score of 5. All listener groups received a minimum total error score of 0. Middle-range scores for these speakers were: 8.75-1.25% with a median of 5.5 for Introductory Level 1 speakers, 7.25-0.25% with a median of 3.5 for Introductory Level 2 speakers, 4-1.25% with a median of 2 for Advanced Level 3 speakers and 1.75-0% with a median of 0.5 for Advanced Level 4 speakers.

"Words" By Speaker Level Has/Has Not Spoken to Americans - Has Not Spoken to Americans

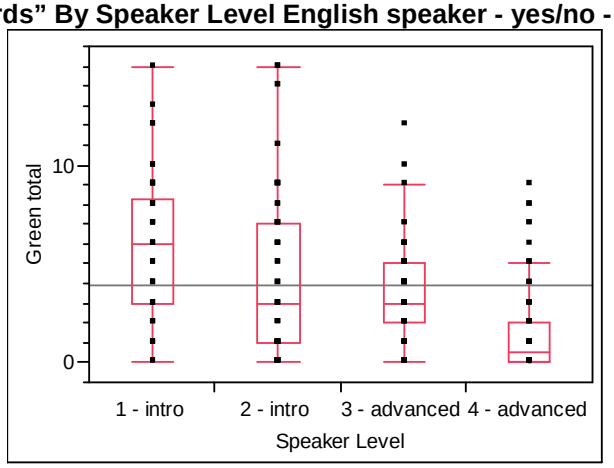


Quantiles

Level	Minimum	10%	25%	Median	75%	90%	Maximum
1 - intro	0	0.3	1.25	5.5	8.75	11.4	12
2 - intro	0	0	0.25	3.5	7.25	11.1	12
3 - advanced	1	1	1.25	2	4	6.4	7
4 - advanced	0	0	0	0.5	1.75	4.1	5

The maximum total error score given to Introductory Level 1 and 2 speakers by English-speaking Russians was 15, 12 for Advanced Level 3 speakers and 9 for Advanced Level 4 speakers. The minimum score for all groups was 0. Middle-range scores for these levels were: 8.25-3% with a median of 6 for Introductory Level 1 speakers, 7-1% with a median of 3 for Introductory Level 2 speakers, 5-2% with a median of 3 for Advanced Level 3 speakers and 2-0% with a median of 0.5 for Advanced Level 4 speakers.

"Words" By Speaker Level English speaker - yes/no - yes

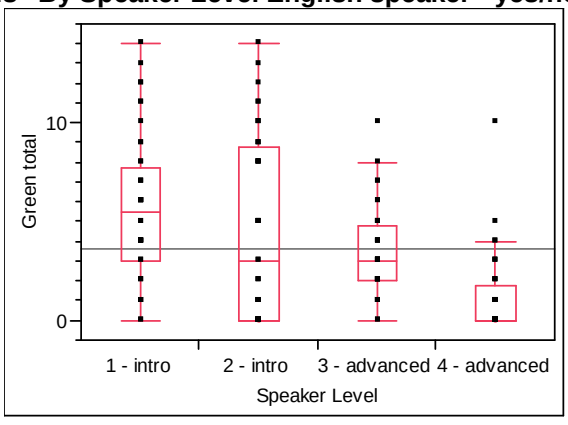


Quantiles

Level	Minimum	10%	25%	Median	75%	90%	Maximum
1 - intro	0	1	3	6	8.25	10.2	15
2 - intro	0	0	1	3	7	11	15
3 - advanced	0	1	2	3	5	6.1	12
4 - advanced	0	0	0	0.5	2	6.1	9

Russians who do not speak English gave Introductory Level 1 and 2 speakers maximum total error scores of 14, while Advanced Level 3 and 4 speakers were given total error scores of 10. All groups received a minimum score of 0. Scores in the 50% quartiles were: 7.75-3% with a median of 5.5 for Introductory Level 1 speakers, 8.75-0% with a median of 3 for Introductory Level 2 speakers, 4.75-2% with a median of 3 for Advanced Level 3 speakers and 1.75-0% with a median of 0 for Advanced Level 4 speakers.

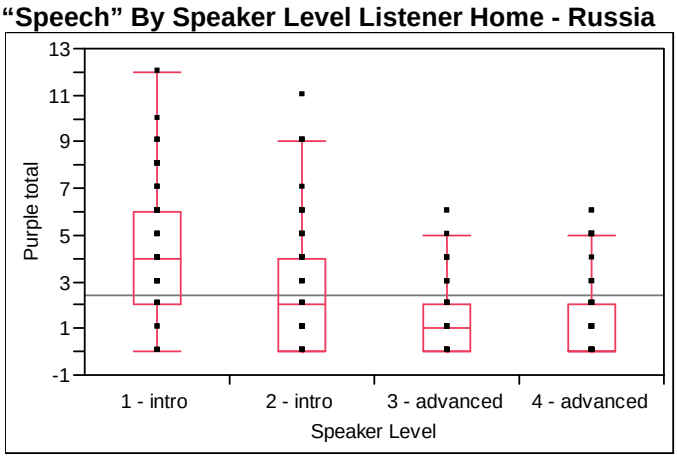
"Words" By Speaker Level English speaker - yes/no- no



Quantiles

Level	Minimum	10%	25%	Median	75%	90%	Maximum
1 - intro	0	1	3	5.5	7.75	11.5	14
2 - intro	0	0	0	3	8.75	11	14
3 - advanced	0	1	2	3	4.75	6.5	10
4 - advanced	0	0	0	0	1.75	3.5	10

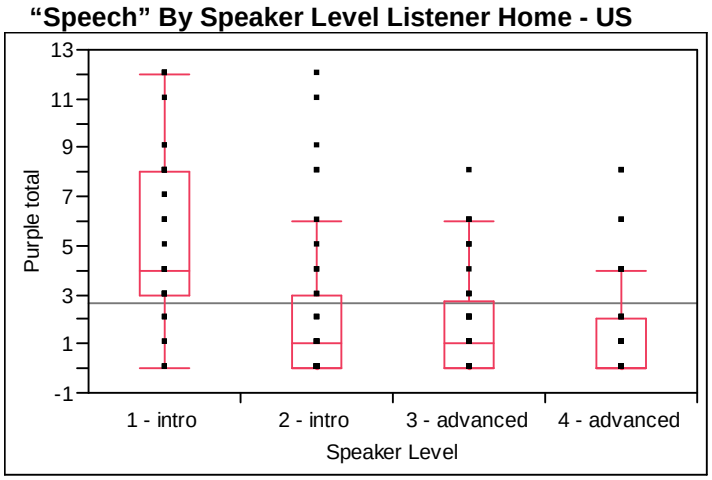
I now analyze the scores given to speakers of different levels in the "speech" category. The maximum total error scores given by Russians in Russia were equal to or slightly lower than the maximum total error scores given by Russians in the US. For example, Russians in Russia gave Introductory Level 1 speakers a maximum total error score of 12, Introductory Level 2 speakers received a maximum total error score of 11, while Advanced Level 3 and 4 speakers received a maximum total error score of 6. The minimum score for all groups was 0. Middle scores ranged from 6-2% with a median of 4 for Introductory Level 1 speakers, 4-0% with a median of 2 for Introductory Level 2 speakers, 2-0% with a median of 1 for Advanced Level 3 speakers and 2-0% with a median of 0 for Advanced Level 4 speakers.



Quantiles

Level	Minimum	10%	25%	Median	75%	90%	Maximum
1 - intro	0	0	2	4	6	8	12
2 - intro	0	0	0	2	4	6.7	11
3 - advanced	0	0	0	1	2	4	6
4 - advanced	0	0	0	0	2	5	6

The maximum total error scores given to Introductory Level 1 and 2 speakers by Russians in the US was 12, while Advanced Level 3 and 4 speakers each received a maximum total error score of 8. The minimum score given to all speaker groups was 0. Middle range scores for the Introductory Level 1 speakers spanned from 8-3% with a median of 4, 3-0% with a median of 1 for Introductory Level 2 speakers, 2.75-0% with a median of 1 for Advanced Level 3 speakers and 2-0% with a median of 0 for Advanced Level 4 speakers.

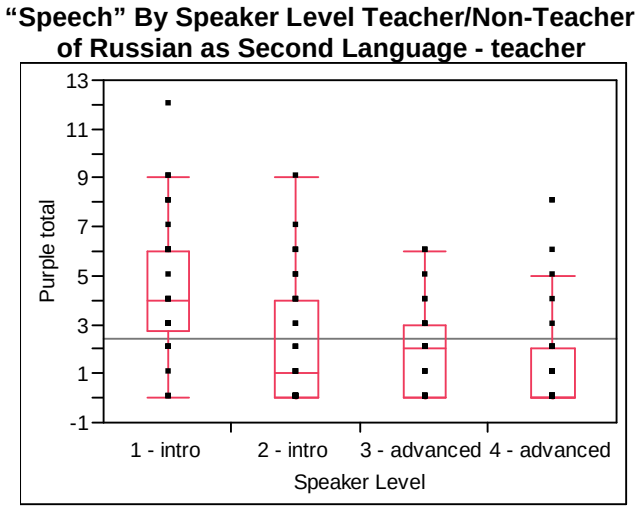


Quantiles

Level	Minimum	10%	25%	Median	75%	90%	Maximum
1 - intro	0	0.1	3	4	8	11.9	12
2 - intro	0	0	0	1	3	8	12
3 - advanced	0	0	0	1	2.75	5.9	8
4 - advanced	0	0	0	0	2	5.8	8

The maximum total error score given to Introductory Level 1 speakers by teachers was 12, Introductory Level 2 speakers received a total score of 9, Advanced Level 3 speakers were given a score of 6, and for Advanced Level 4 speakers this total was 8. 0 was the minimum score. The middle range of scores that these listeners gave speakers

was 6-2.75% with a median of 4 for Introductory Level 1 speakers, 4-0% with a median of 1 for Introductory Level 2 speakers, 3-0% with a median of 2 for Advanced Level 3 speakers and 2-0% with a median of 0 for Advanced Level 4 speakers.

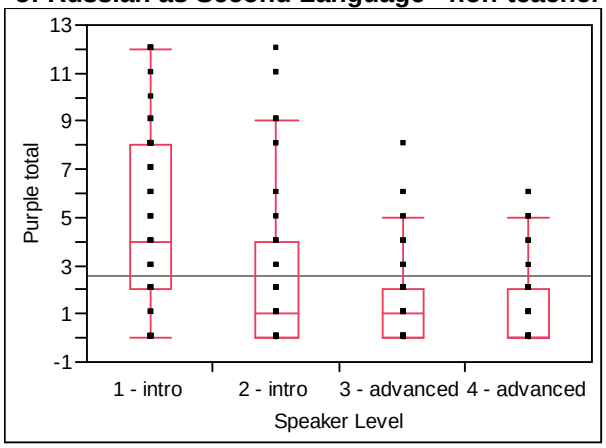


Quantiles

Level	Minimum	10%	25%	Median	75%	90%	Maximum
1 - intro	0	0.9	2.75	4	6	8.1	12
2 - intro	0	0	0	1	4	6	9
3 - advanced	0	0	0	2	3	5.1	6
4 - advanced	0	0	0	0	2	5.1	8

Non-teachers gave Introductory Level 1 and 2 speakers a maximum total error score of 12, Advanced Level 3 speakers were given 8, and Advanced Level 4 speakers received a score of 6. The minimum score given was 0. Middle-range scores were between 8-2% with a median of 4 for Introductory Level 1 speakers, 4-0% with a median of 1 for Introductory Level 2 speakers, 2-0% with a median of 1 for Advanced Level 3 speakers and 2-0% with a median of 0 for Advanced Level 4 speakers.

"Speech" By Speaker Level Teacher/Non-Teacher of Russian as Second Language - non-teacher

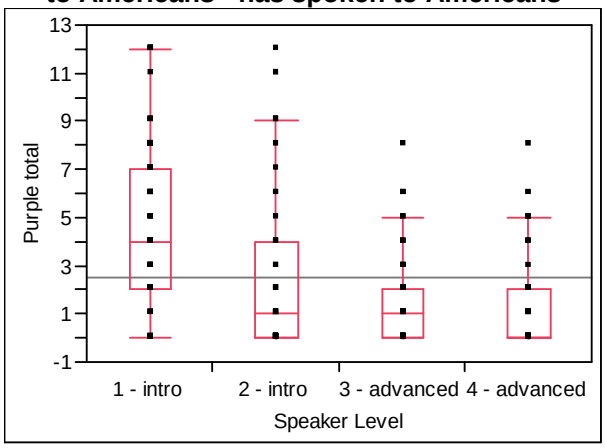


Quantiles

Level	Minimum	10%	25%	Median	75%	90%	Maximum
1 - intro	0	0	2	4	8	9.5	12
2 - intro	0	0	0	1	4	9	12
3 - advanced	0	0	0	1	2	4	8
4 - advanced	0	0	0	0	2	5	6

Both Introductory Level 1 and 2 speakers received a maximum total error score of 12 from Russians who have had prior contact with Americans, while advanced Level 3 and 4 speakers each received a total error score of 8 from these listeners. The minimum score given was 0. 7-2% of the scores for Introductory Level 1 speakers fell between the 50% range, 4-0% for Introductory Level 2 speakers, 2-0% for Advanced Level 3 speakers and 2-0% for Advanced Level 4 speakers. The medians for each group of listeners were 4, 1, 1 and 0, respectively.

"Speech" By Speaker Level Has/Has Not Spoken to Americans - has spoken to Americans

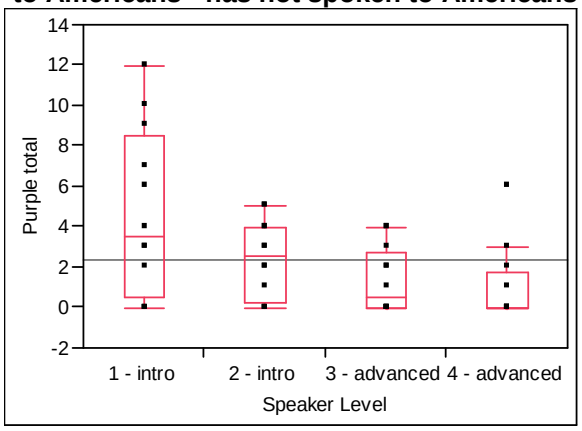


Quantiles

Level	Minimum	10%	25%	Median	75%	90%	Maximum
1 - intro	0	0	2	4	7	8.9	12
2 - intro	0	0	0	1	4	8	12
3 - advanced	0	0	0	1	2	4.9	8
4 - advanced	0	0	0	0	2	5	8

Russians who have not had prior contact with Americans gave 3 lower maximum total error scores than their counterparts. Although Introductory Level 1 speakers had a maximum total error score of 12 as in the previous group, maximum error scores for Introductory Level 2 and Advanced Level 3 and 4 speakers were lower at 5, 4 and 6, respectively. The minimum score given was 0. Middle-range scores were 7-2% with a median of 4 for Introductory Level 1 speakers, 4-0% with a median of 1 for Introductory Level 2 speakers, 2-0% with a median of 1 for Advanced Level 3 speakers and 2-0% with a median of 0 for Advanced Level 4 speakers.

"Speech" By Speaker Level Has/Has Not Spoken to Americans - has not spoken to Americans

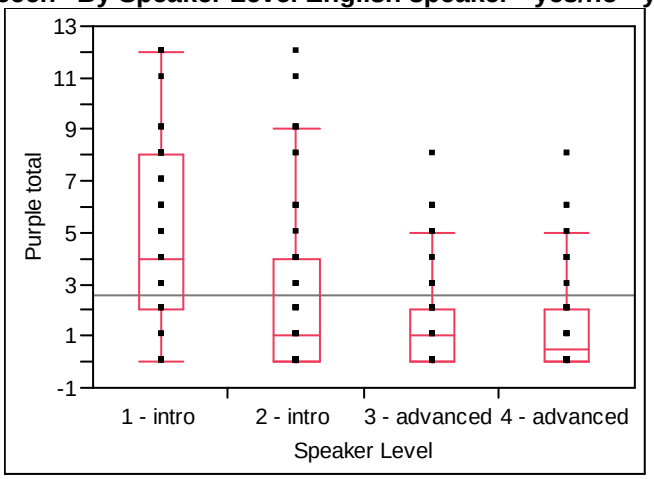


Quantiles

Level	Minimum	10%	25%	Median	75%	90%	Maximum
1 - intro	0	0	0.5	3.5	8.5	11.4	12
2 - intro	0	0	0.25	2.5	4	5	5
3 - advanced	0	0	0	0.5	2.75	4	4
4 - advanced	0	0	0	0	1.75	5.1	6

The maximum total error score given to Introductory Level 1 and 2 speakers by English-speaking and non-English-speaking Russians was 12, while it was 8 for Advanced Level 3 and 4 speakers. The minimum score was 0. Scores in the middle range were between 8-2% with a median of 4 for Introductory Level 1 speakers, 4-0% with a median of 1 for Introductory Level 2 speakers, 2-0% with a median of 1 for Advanced Level 3 speakers and 2-0% with a median of 0.5 for Advanced Level 4 speakers.

"Speech" By Speaker Level English speaker - yes/no - yes

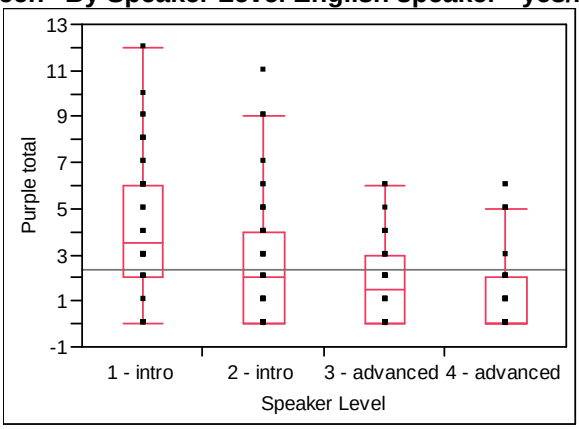


Quantiles

Level	Minimum	10%	25%	Median	75%	90%	Maximum
1 - intro	0	0	2	4	8	9.2	12
2 - intro	0	0	0	1	4	8.1	12
3 - advanced	0	0	0	1	2	5	8
4 - advanced	0	0	0	0.5	2	5	8

Russians who do not speak English gave Introductory Level 1 speakers a maximum total error score of 12, Introductory Level 2 speakers received a maximum score of 11, while Advanced Level 3 and 4 speakers each received a maximum total error score of 6. The minimum score was 0. Scores in the 75-25% quartile for Introductory Level 1 speakers ranged from 6-2% with a median of 3.5, 4-0% with a median of 2 for Introductory Level 2 speakers, 3-0% with a median of 1.5 for Advanced Level 3 speakers and 2-0% with a median of 0 for Advanced Level 4 speakers.

"Speech" By Speaker Level English speaker - yes/no - no

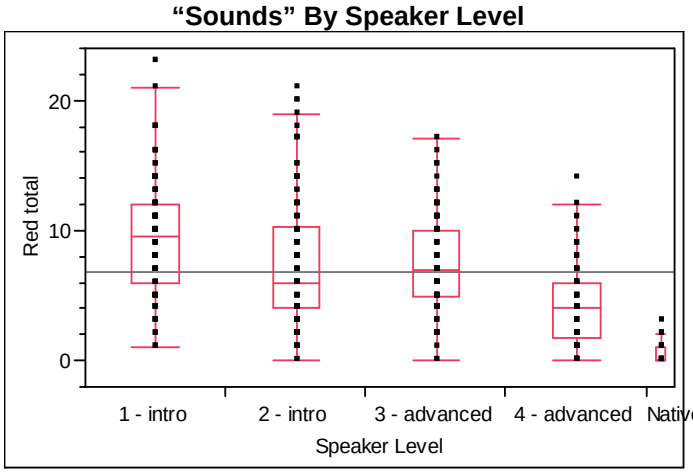


Quantiles

Level	Minimum	10%	25%	Median	75%	90%	Maximum
1 - intro	0	0	2	3.5	6	8.5	12
2 - intro	0	0	0	2	4	6.5	11
3 - advanced	0	0	0	1.5	3	4	6
4 - advanced	0	0	0	0	2	5	6

The final box plots I present have been broken down by category (i.e. “sounds,” “words,” “speech”) and speaker level. The control group has been added as well.

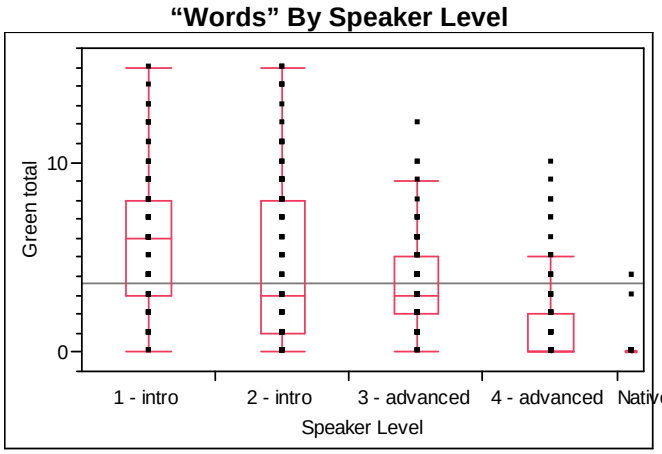
When analyzing the “sounds” category one sees that the maximum total error scores for the Introductory Level 1 and 2, Advanced Level 3 and 4 speakers and control group are 23, 21, 17, 14 and 3, respectively. Excluding the Introductory Level 1 minimum score of 1 the rest of the speaker levels had a minimum score of 0. The middle range scores were 12-6% with a median of 9.5 for the Introductory Level 1 speakers, 10.25-4% with a median of 6 for the Introductory Level 2 speakers, 10-5% with a median of 7 for the Advanced Level 3 speakers, 6-1.75% with a median of 4 for the Advanced Level 4 speakers and 1-0% with a median of 0 for the control group.



Quantiles

Level	Minimum	10%	25%	Median	75%	90%	Maximum
1 - intro	1	4	6	9.5	12	14.7	23
2 - intro	0	2	4	6	10.25	14.7	21
3 - advanced	0	3	5	7	10	12	17
4 - advanced	0	0	1.75	4	6	8	14
Native	0	0	0	0	1	2	3

The maximum total errors made by speakers in the "words" category were 15 for Introductory Level 1 and 2 speakers, 12 for Advanced Level 3 speakers, 10 for Advanced Level 4 speakers and 4 for the control group. The middle range of scores was 8-3% with a median of 6 for the Introductory Level 1 speakers, 8-1% with a median of 3 for the Introductory Level 2 speakers, 5-2% with a median of 3 for the Advanced Level 3 speakers, 2-0% with a median of 0 for the Advanced Level 4 speakers and 0-0% with a median of 0 for the control group.

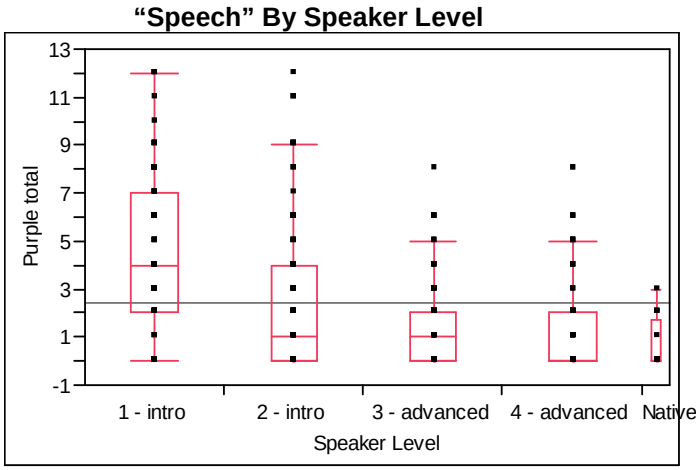


Quantiles

Level	Minimum	10%	25%	Median	75%	90%	Maximum
1 - intro	0	1	3	6	8	11	15
2 - intro	0	0	1	3	8	11	15
3 - advanced	0	1	2	3	5	6	12
4 - advanced	0	0	0	0	2	4.7	10
Native	0	0	0	0	0	2.7	4

The maximum total error score in the "speech" category for Introductory Level 1 and 2 speakers was 12, 8 for Advanced Level 3 and 4 speakers and 3 for the control group. The minimum score was 0. Scores in the 75-25% quartile ranged from 7-2% with a median of 4 for Introductory Level 1 speakers, 4-0% with a median of 1 for Introductory Level 2 speakers, 2-0% with a median of 1 for Advanced Level 3 speakers,

2-0% with a median of 0 for Advanced Level 4 speakers and 1.75-0 with a median of 0 for the control group.



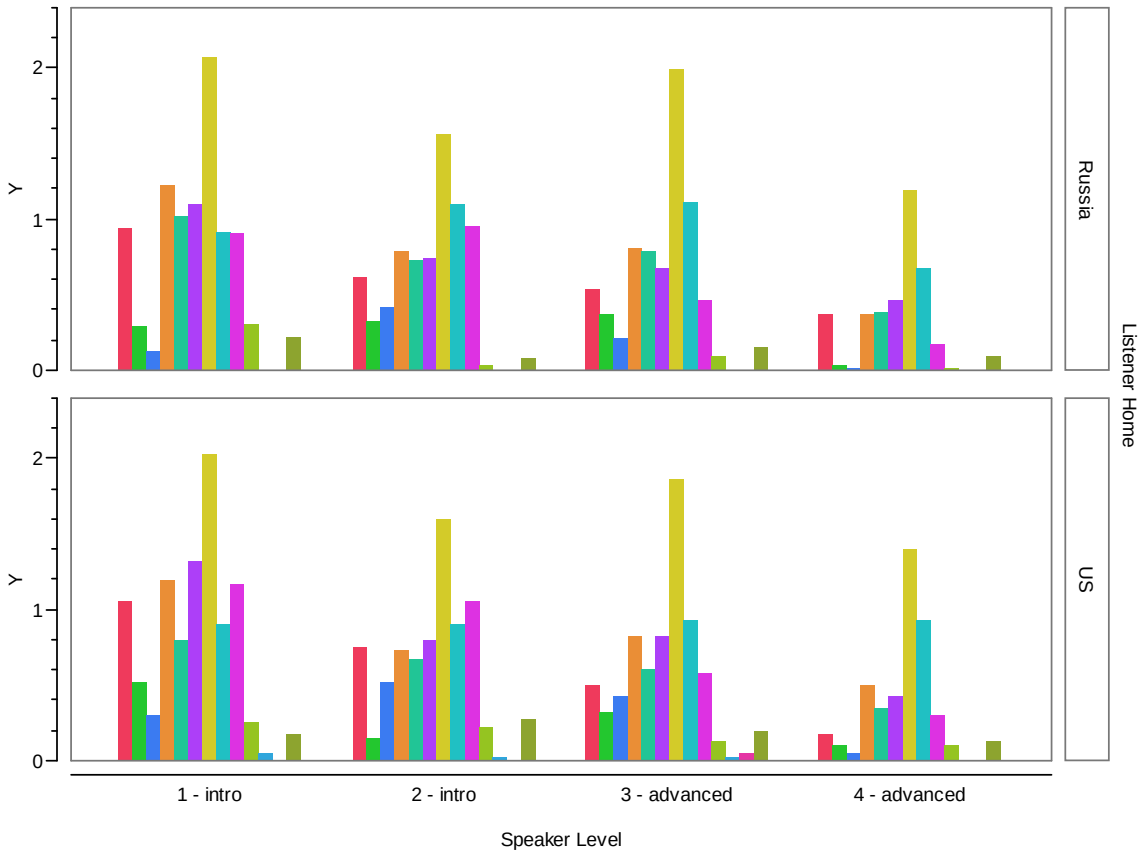
Quantiles

Level	Minimum	10%	25%	Median	75%	90%	Maximum
1 - intro	0	0	2	4	7	9	12
2 - intro	0	0	0	1	4	7.7	12
3 - advanced	0	0	0	1	2	4	8
4 - advanced	0	0	0	0	2	5	8
Native	0	0	0	0	1.75	2	3

3.1.5 – Bar Graphs

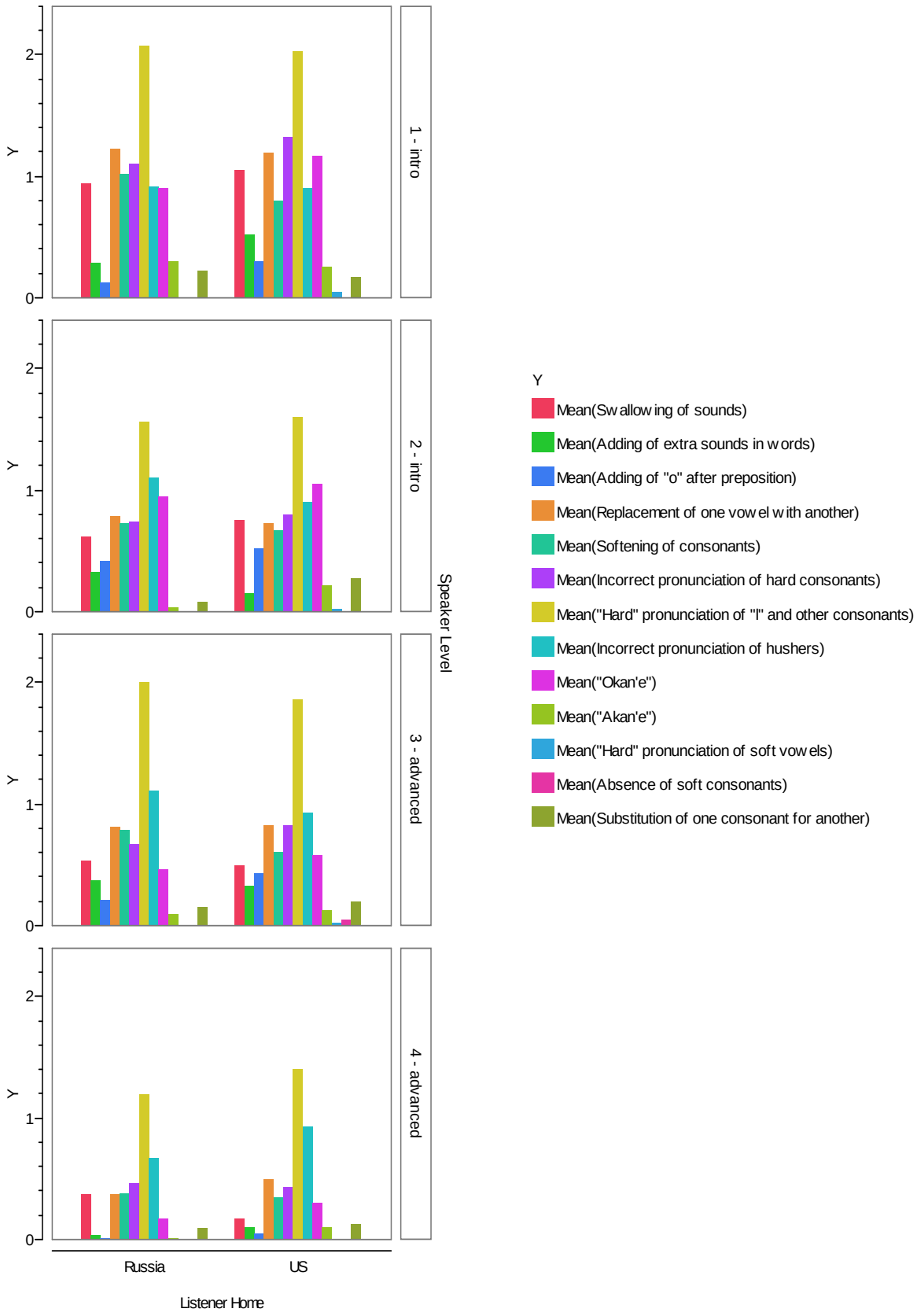
I use bar graphs in the final section of statistical analysis in Part I to examine which errors made by the non-native speakers of each proficiency level most interfered with native-speaker intelligibility. My four listener groups and category groupings ("sounds," "words," speech") stayed the same. I begin by looking at the total number of "sounds" errors heard by Russians in Russia and Russians in the US.

When comparing the differences between speaker errors and "Listener Home" one notices that there was no significant difference between the opinions of Russians in Russia and the US regarding the most severe type of "sounds" error they heard, as both groups ranked "'hard' pronunciation of 'l' and other consonants" as the error that most interfered with intelligibility of L-2 speech. In addition, the bar graphs illustrate that Russians in Russia and the US rated "'hard' pronunciation of 'l' and other consonants" as equally salient for both introductory and advanced-level speakers.



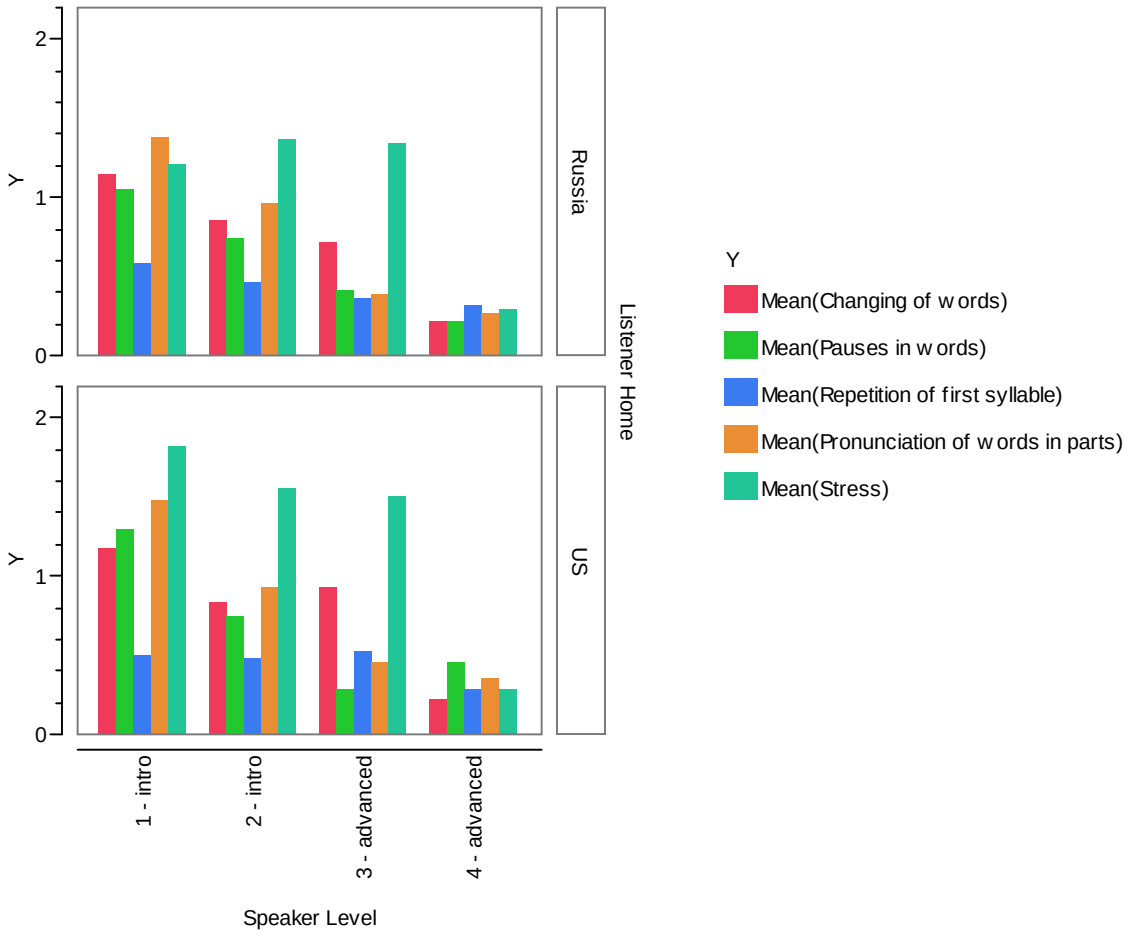
Y

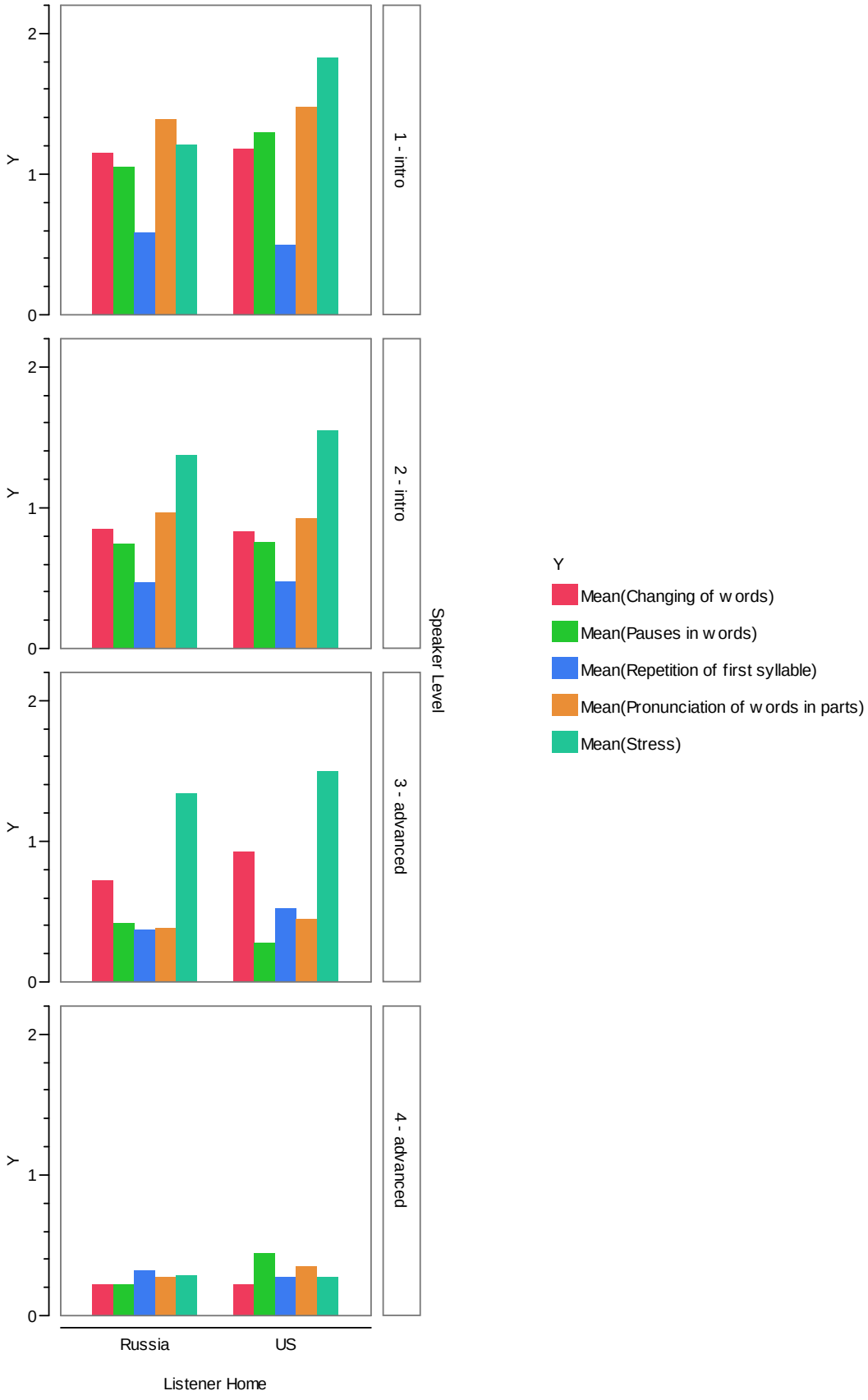
- Mean(Swallowing of sounds)
- Mean(Adding of extra sounds in words)
- Mean(Adding of "o" after preposition)
- Mean(Replacement of one vowel with another)
- Mean(Softening of consonants)
- Mean(Incorrect pronunciation of hard consonants)
- Mean("Hard" pronunciation of "l" and other consonants)
- Mean(Incorrect pronunciation of hushers)
- Mean("Okan'e")
- Mean("Akan'e")
- Mean("Hard" pronunciation of soft vowels)
- Mean(Absence of soft consonants)
- Mean(Substitution of one consonant for another)


Y
2
1
0
1 - intro
2 - intro
3 - advanced
4 - advanced
Speaker Level
Russia
US
Listener Home
Y
Mean(Swallowing of sounds)
Mean(Adding of extra sounds in words)
Mean(Adding of "o" after preposition)
Mean(Replacement of one vowel with another)
Mean(Softening of consonants)
Mean(Incorrect pronunciation of hard consonants)
Mean("Hard" pronunciation of "l" and other consonants)
Mean(Incorrect pronunciation of hushers)
Mean("Okan'e")
Mean("Akan'e")
Mean("Hard" pronunciation of soft vowels)
Mean(Absence of soft consonants)
Mean(Substitution of one consonant for another)

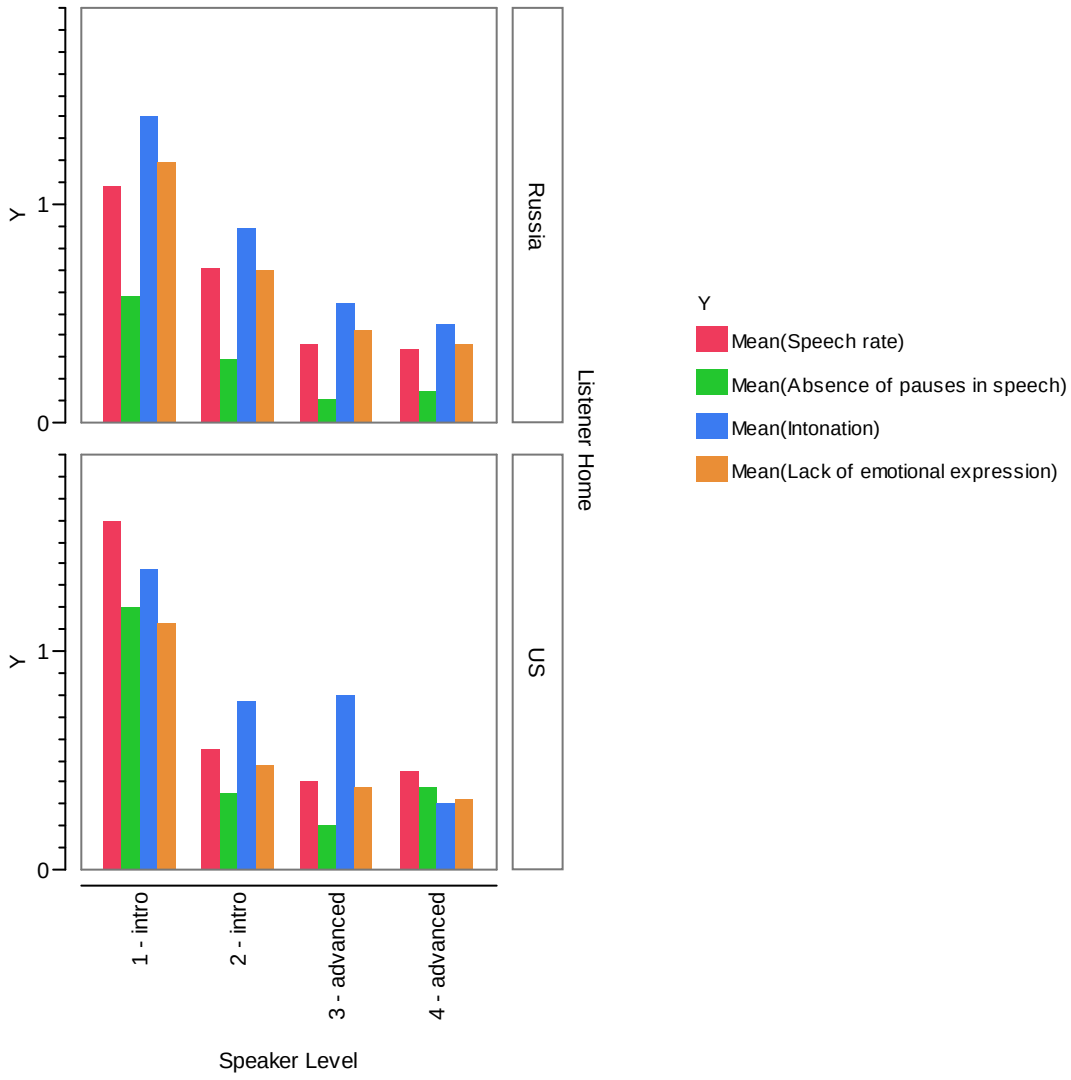
Scores given for errors in the “words” category varied slightly depending on listener home. As the bar graph illustrates Russians in Russia rated “stress” as the most salient error Introductory Level 2 and Advanced Level 3 speakers, while “pronunciation of words in segments” was the most evident error heard among Introductory Level 1 speakers. Among Advanced Level 4 speakers, however, listeners heard “repetition of the first syllable” slightly more often than “incorrect pronunciation.”

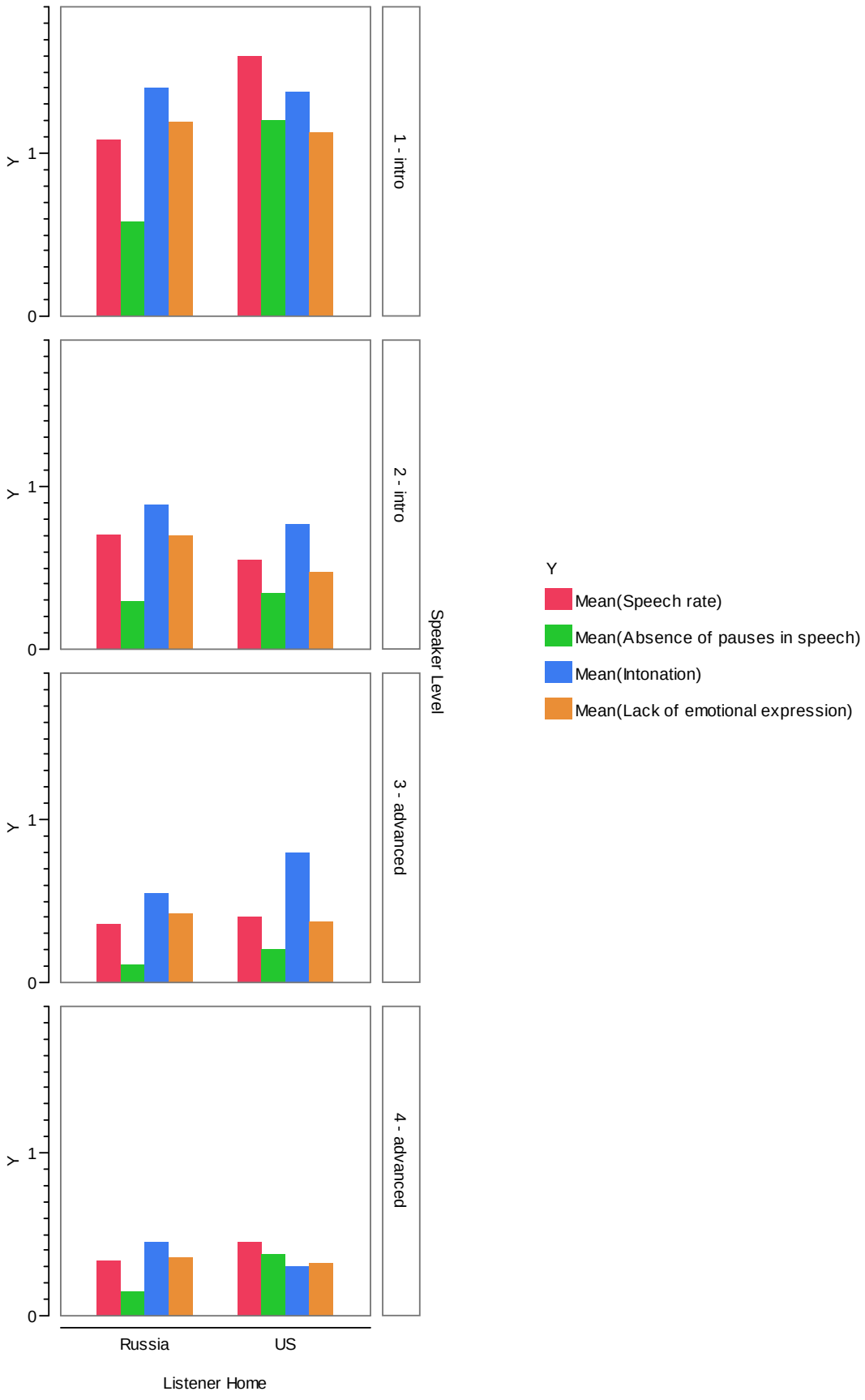
Like Russians in Russia, Russians in the US also rated “incorrect stress” as the most prominent error among Introductory Level 1, 2 and Advanced Level 3 speakers. “Pauses in words” caused the most negative reactions for Russians in the US when listening to Advanced Level 4 speakers.



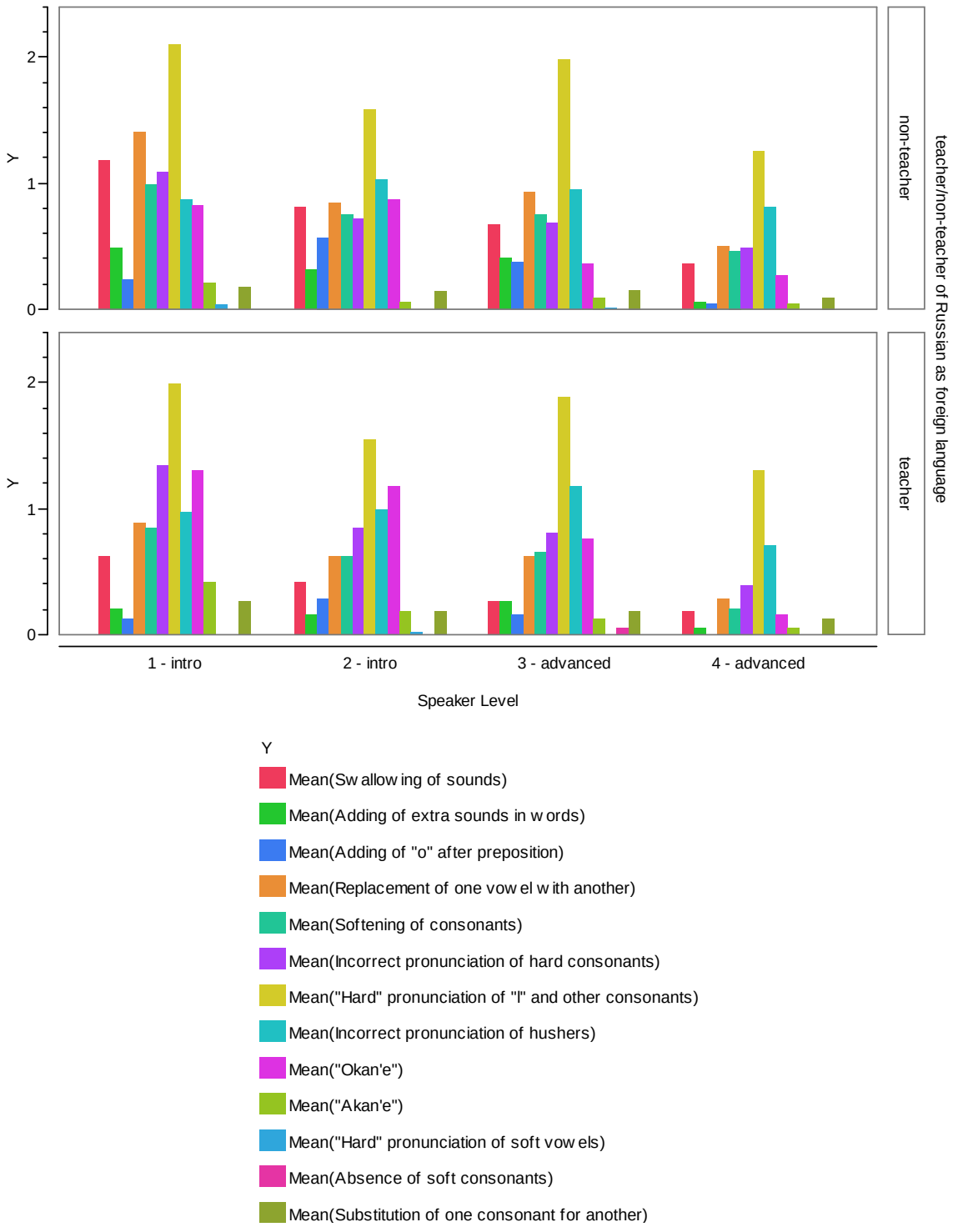

Y
2
1
0
1 - intro
2 - intro
3 - advanced
4 - advanced
Speaker Level
Russia
US
Listener Home
Y
Mean(Changing of w ords)
Mean(Pauses in w ords)
Mean(Repetition of first syllable)
Mean(Pronunciation of w ords in parts)
Mean(Stress)

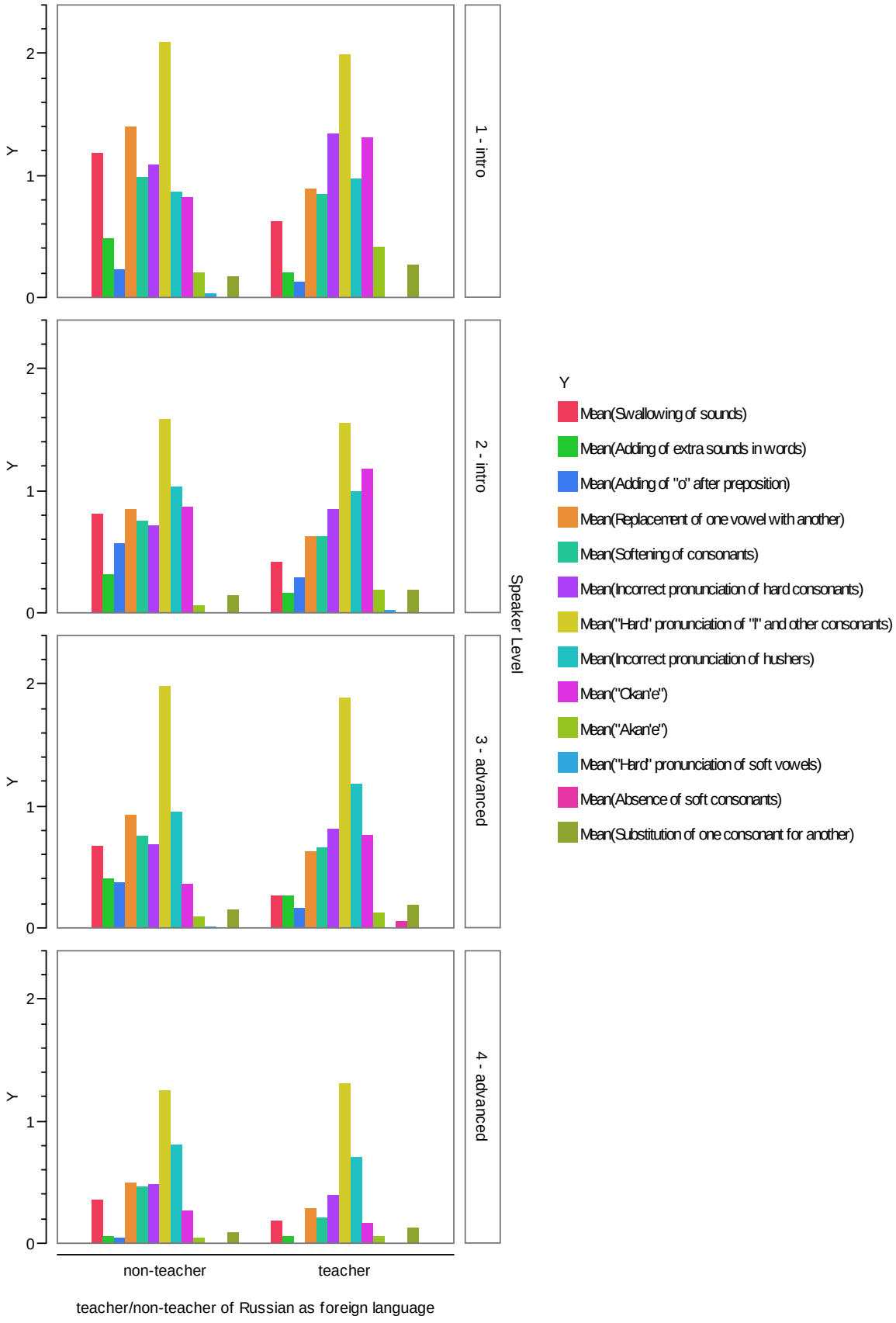
Bar graphs for the “speech” category illustrate that Russians in Russia rated “intonation” as the most blatant error among speakers of all levels. Russians in the US also thought L-2 intonation was glaringly inaccurate but only among Introductory Level 2 and Advanced Level 3 speakers. Among Introductory Level 1 and Advanced Level 4 speakers, however, “speech rate” was rated as having interfered the most with L-1 listener intelligibility.



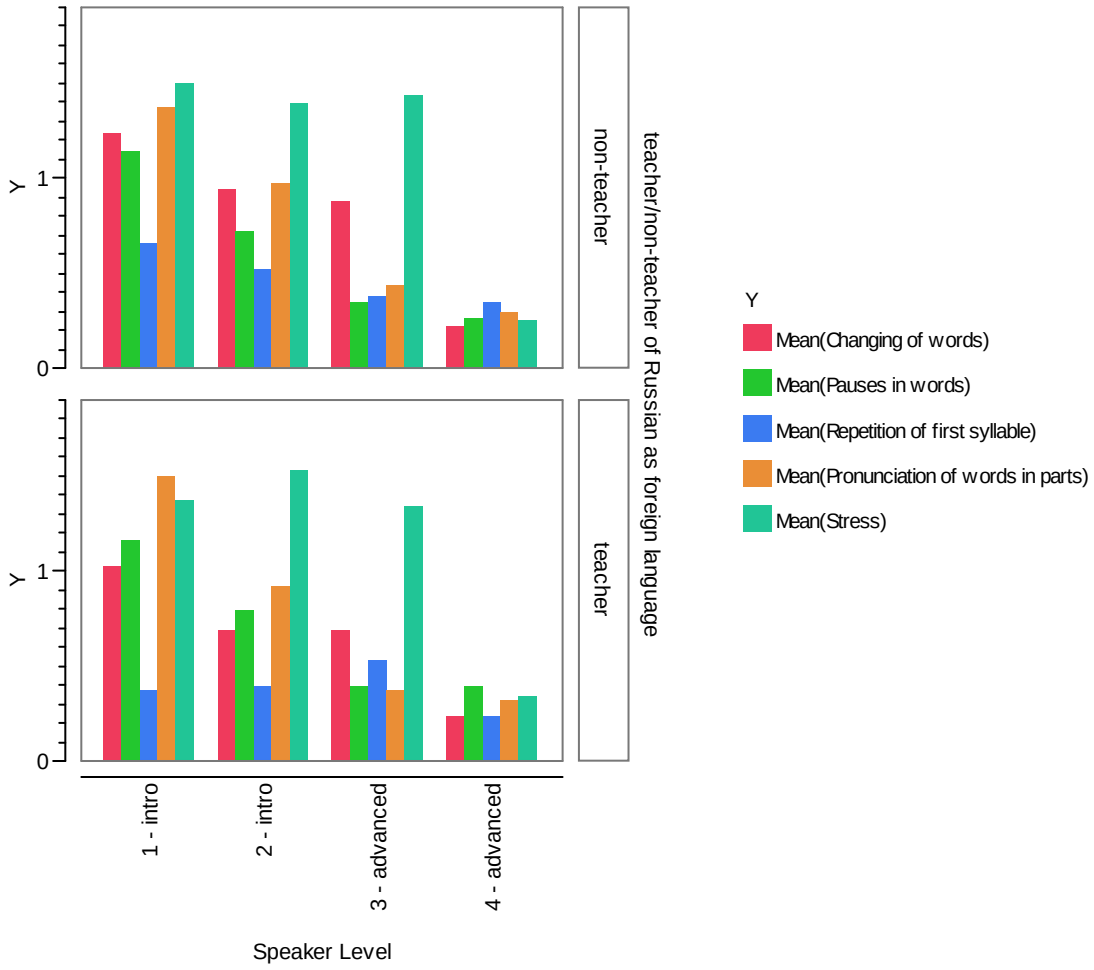

Y
1
0
1 - intro
2 - intro
3 - advanced
4 - advanced
Speaker Level
Russia
US
Listener Home
Y
Mean(Speech rate)
Mean(Absence of pauses in speech)
Mean(Intonation)
Mean(Lack of emotional expression)

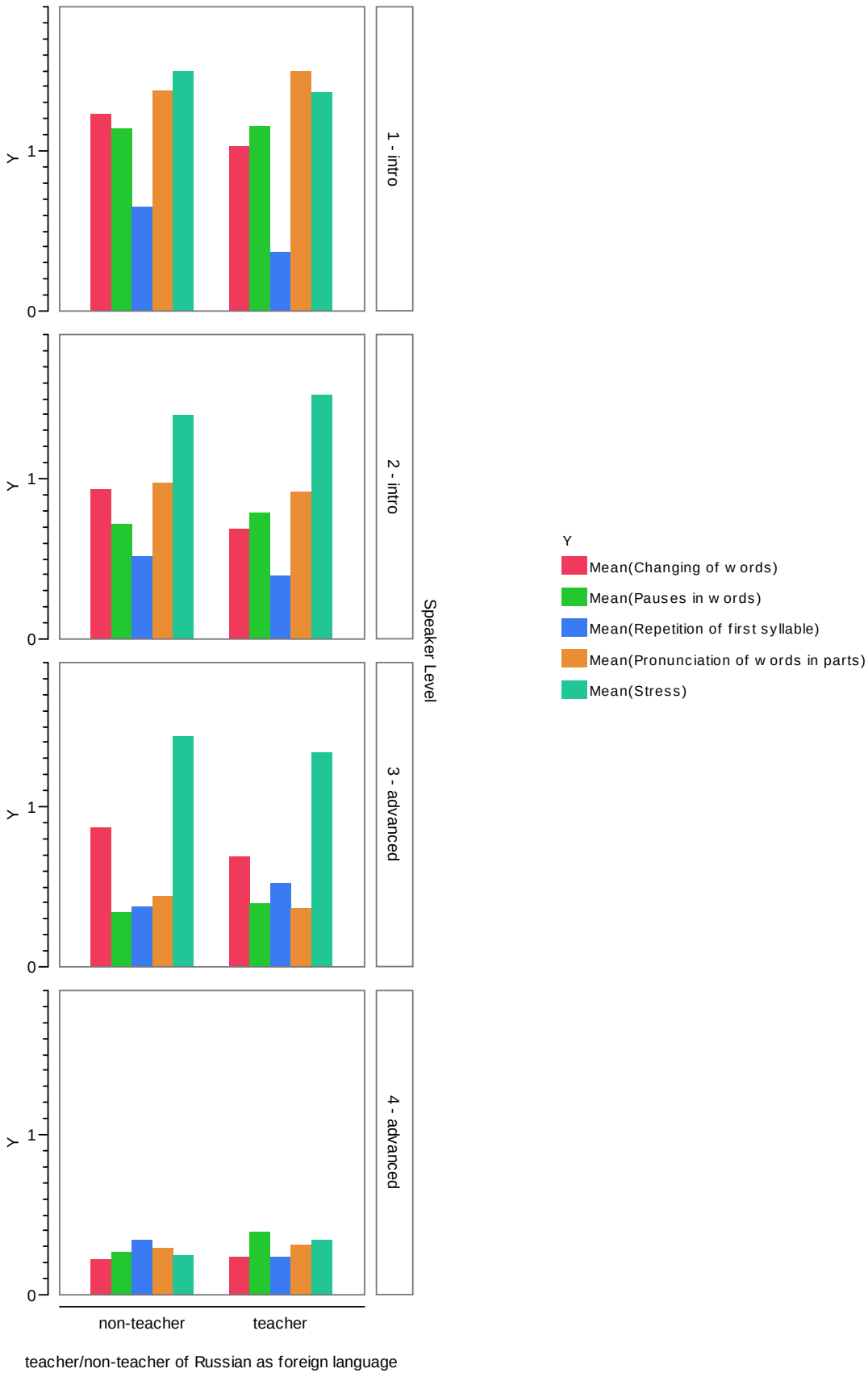
Like Russians in Russia and the US, teachers and non-teachers of Russian as Second Language also rated "'hard' pronunciation of 'l' and other consonants" as the most striking error among speakers of all levels.




Y
2
1
0
1 - intro
2 - intro
3 - advanced
4 - advanced
Speaker Level
non-teacher
teacher
teacher/non-teacher of Russian as foreign language
Y
Mean(Swallowing of sounds)
Mean(Adding of extra sounds in words)
Mean(Adding of "o" after preposition)
Mean(Replacement of one vowel with another)
Mean(Softening of consonants)
Mean(Incorrect pronunciation of hard consonants)
Mean("Hard" pronunciation of "l" and other consonants)
Mean(Incorrect pronunciation of hushers)
Mean("Ckan'e")
Mean("Akan'e")
Mean("Hard" pronunciation of soft vowels)
Mean(Absence of soft consonants)
Mean(Substitution of one consonant for another)

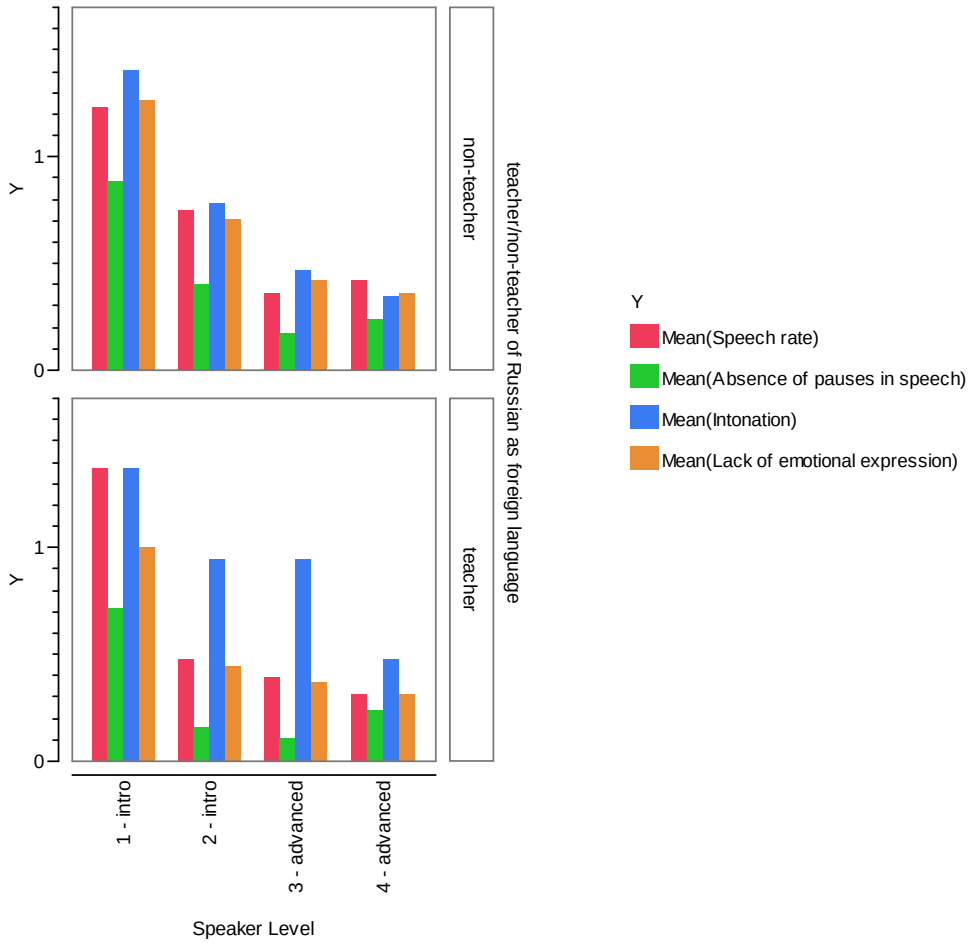
When looking at non-native word forms one notices that “stress” was the most salient error among Introductory Level 2 and Advanced Level 3 speakers according to teachers. However, teachers rated “pronunciation of words in segments” as the most prevalent error among Introductory Level 1 speakers, while “pauses in words” interfered the most with L-1 intelligibility of Level 4 speakers. Non-teachers, on the other hand, rated “stress” as the most salient error among Introductory Level 1 and 2 and Advanced Level 3 speakers. Non-teachers determined that “repetition of first syllable” most interfered with their intelligibility of Advanced Level 4 speakers.

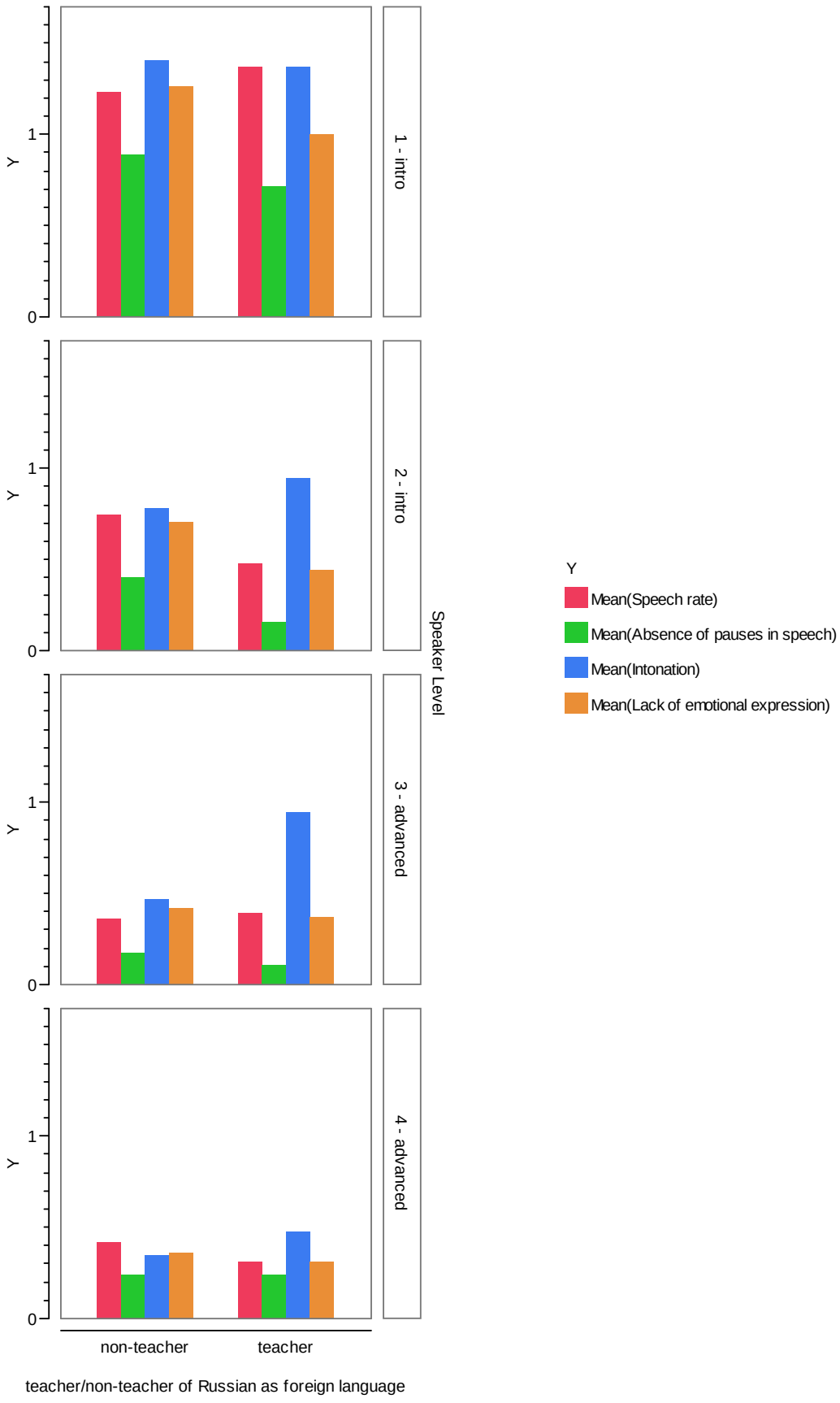



Y
1
0
1 - intro
2 - intro
3 - advanced
4 - advanced
Speaker Level
non-teacher
teacher
teacher/non-teacher of Russian as foreign language
Y
Mean(Changing of w ords)
Mean(Pauses in w ords)
Mean(Repetition of first syllable)
Mean(Pronunciation of w ords in parts)
Mean(Stress)

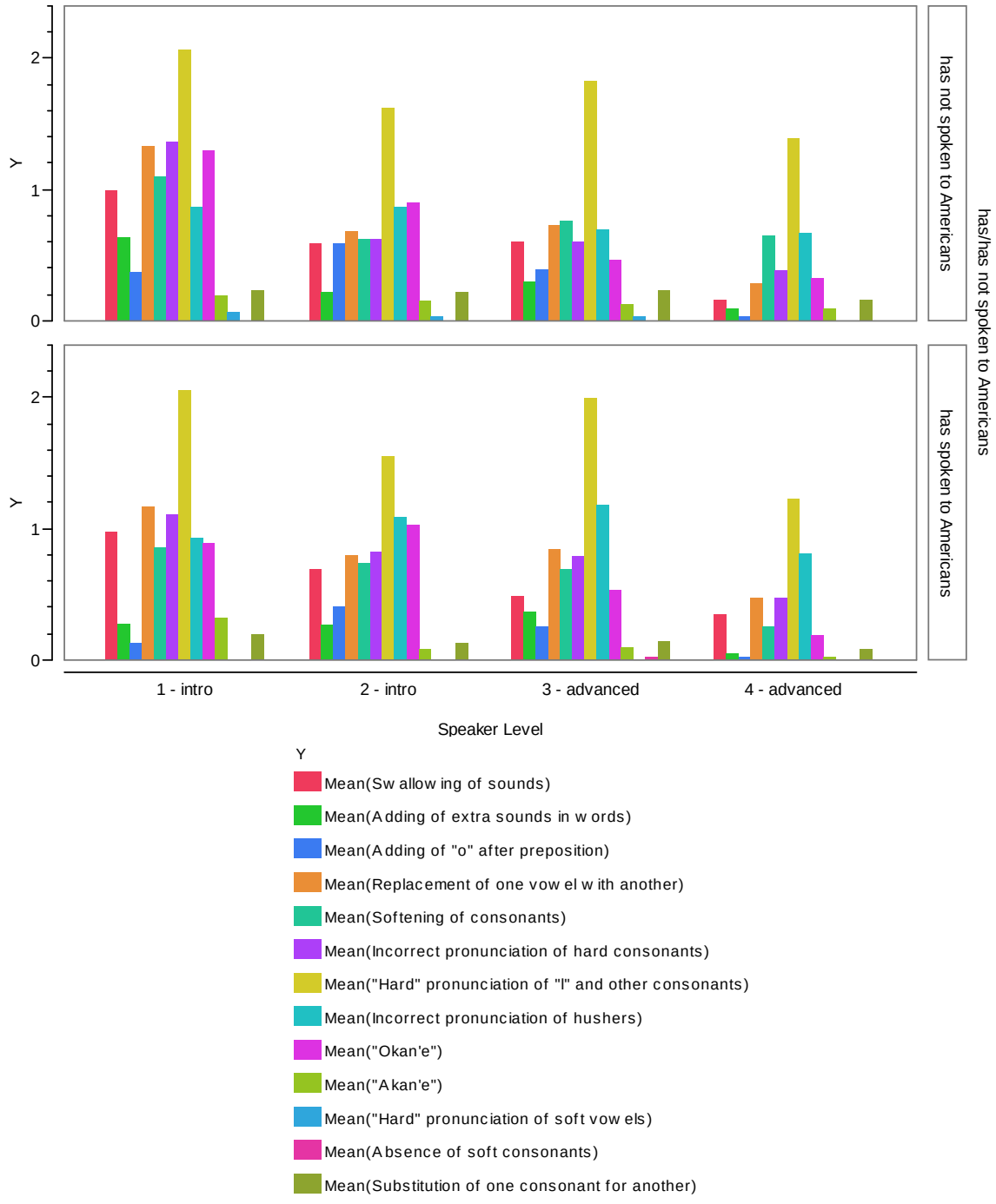
Both teachers and non-teachers had similar opinions about the most salient errors in the "speech" category. Teachers, for example, rated "intonation" as having most severely interfered with their intelligibility of Introductory Level 2 and Advanced Level 3 and 4 speakers. However, these listeners rated "speech rate" and "intonation" as the most serious of all the four errors among Level 1 speakers.

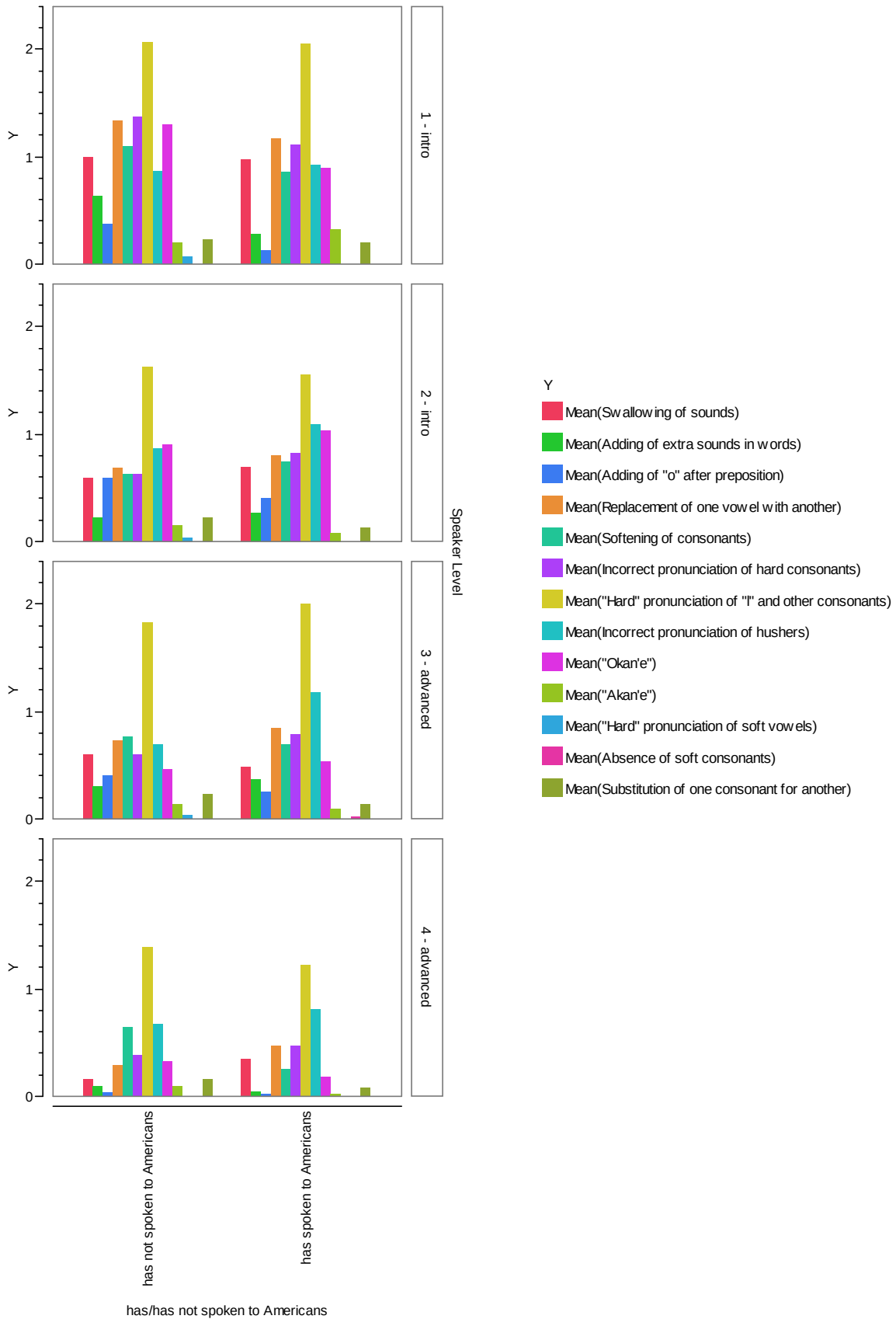
Incorrect L-2 intonation negatively affected the way non-teachers rated Introductory Level 1 and 2 and Advanced Level 3 speakers. Conversely, non-teachers rated "speech rate" as the most profound error among Advanced Level 4 speakers.




Y
1
0
1 - intro
2 - intro
3 - advanced
4 - advanced
Speaker Level
non-teacher
teacher
teacher/non-teacher of Russian as foreign language
Y
Mean(Speech rate)
Mean(Absence of pauses in speech)
Mean(Intonation)
Mean(Lack of emotional expression)

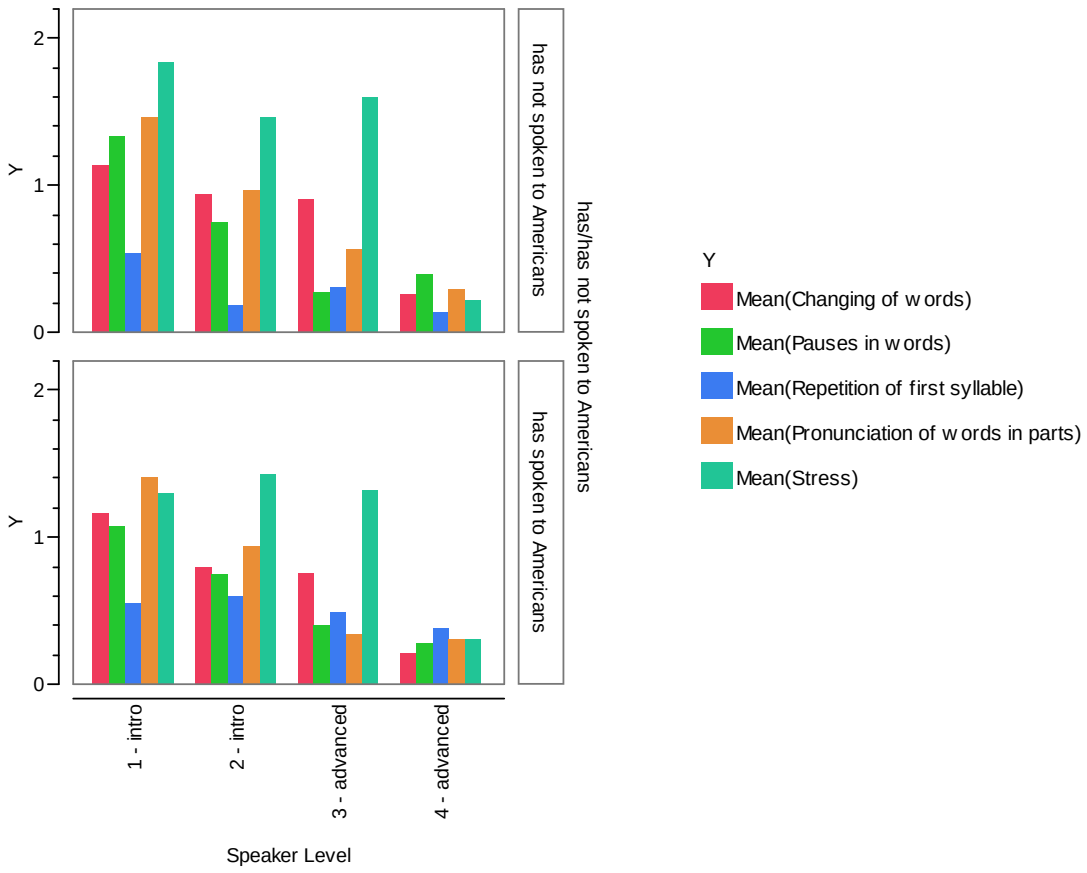
Russians who have or have not had prior contact with Americans rated "'hard' pronunciation of 'l' and other consonants" as the most salient "sounds" error among speakers of all levels.

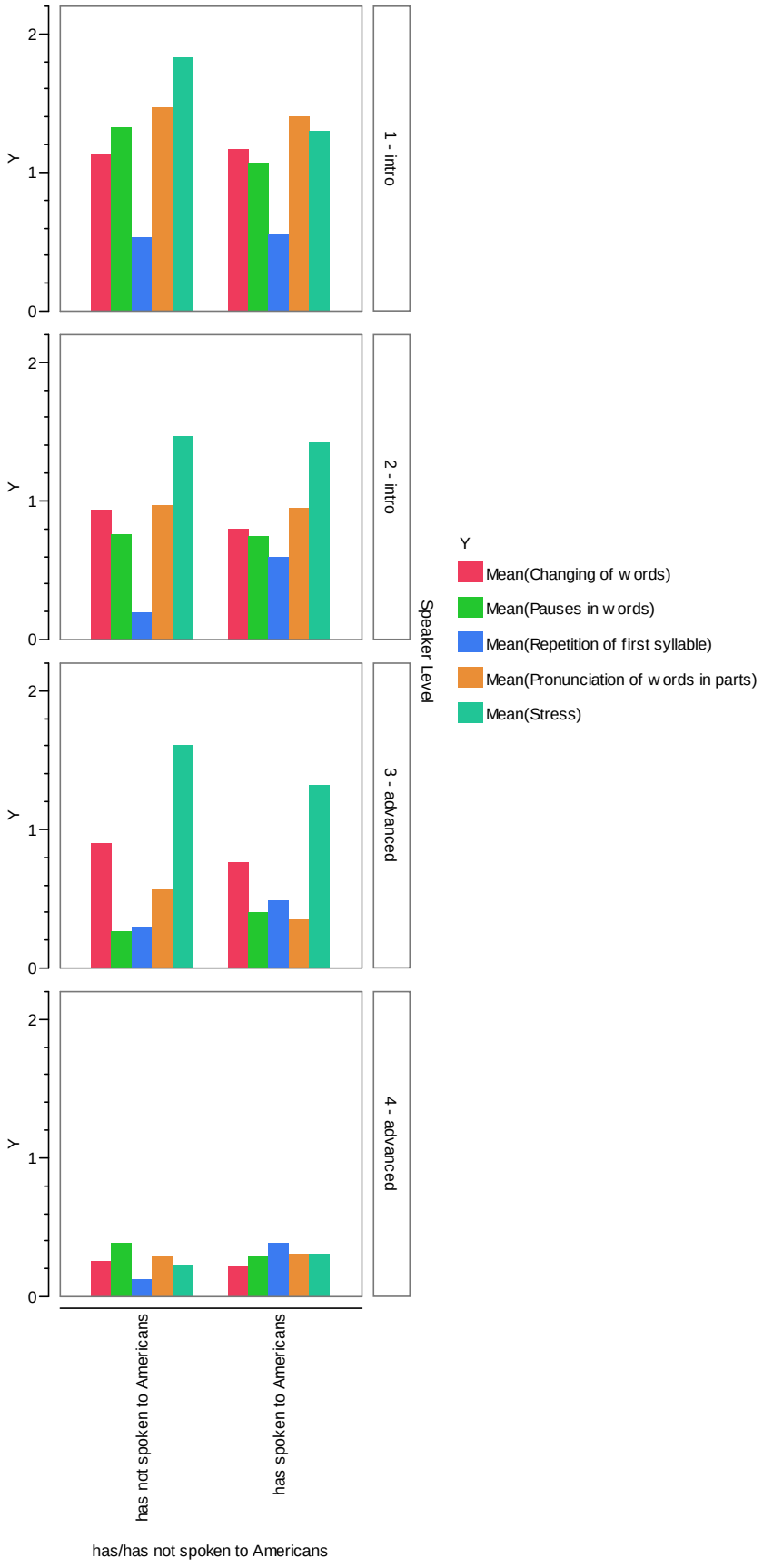



Y
Mean(Swallowing of sounds)
Mean(Adding of extra sounds in words)
Mean(Adding of "o" after preposition)
Mean(Replacement of one vowel with another)
Mean(Softening of consonants)
Mean(Incorrect pronunciation of hard consonants)
Mean("Hard" pronunciation of "l" and other consonants)
Mean(Incorrect pronunciation of hushers)
Mean("Okan'e")
Mean("Akan'e")
Mean("Hard" pronunciation of soft vowels)
Mean(Absence of soft consonants)
Mean(Substitution of one consonant for another)
Speaker Level
1 - intro
2 - intro
3 - advanced
4 - advanced
Y
0
1
2
has not spoken to Americans
has spoken to Americans
has/has not spoken to Americans

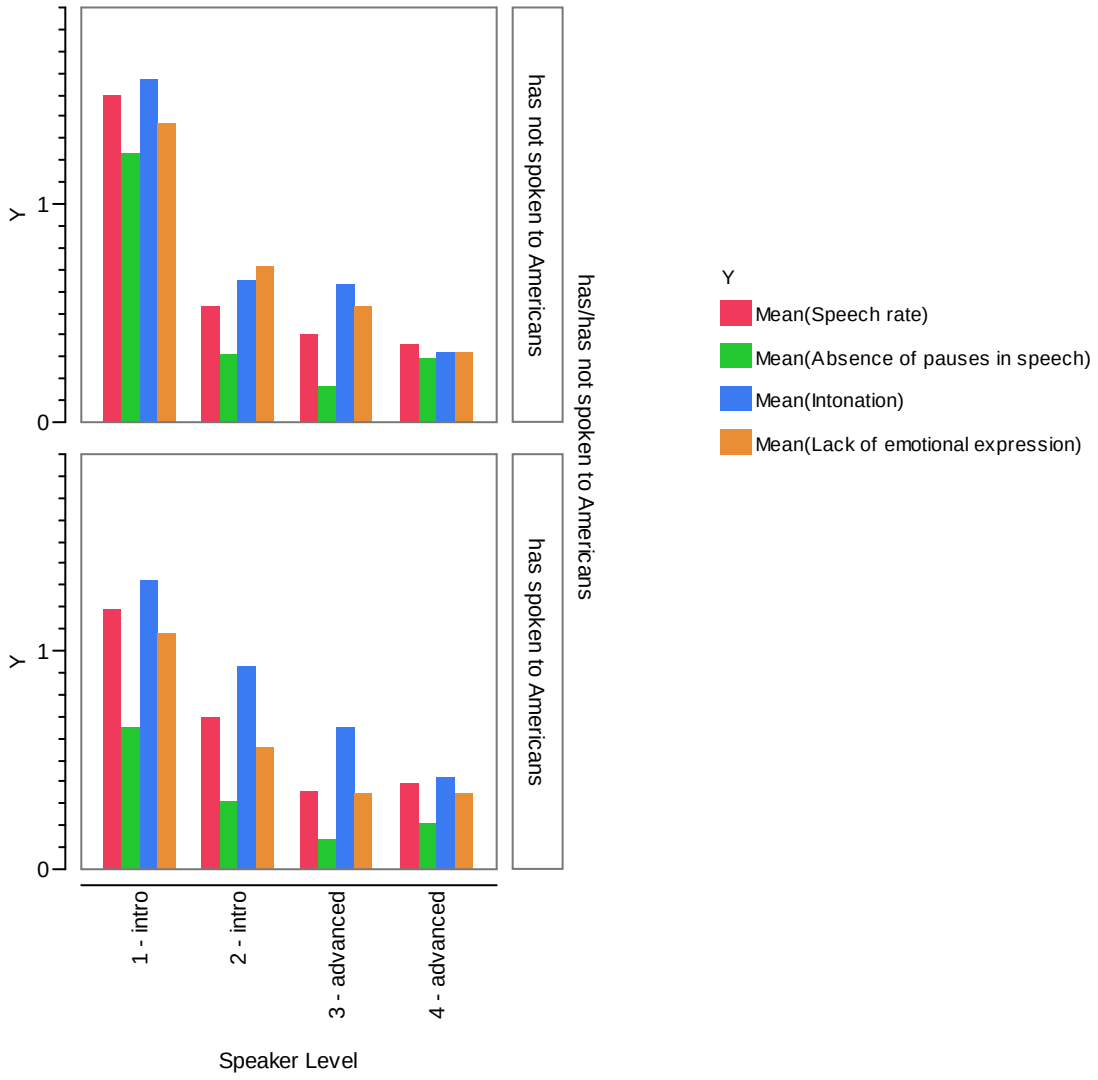
Russians who have had prior contact with Americans rated “stress” as the most salient error in the “words” category among Introductory Level 2 and Advanced Level 3 speakers. Alternatively, these listeners judged “pronunciation of words in segments” as the highest-ranking error among Introductory Level 1 speakers, while “repetition of first syllable” was rated as most prominent among Advanced Level 4 speakers.

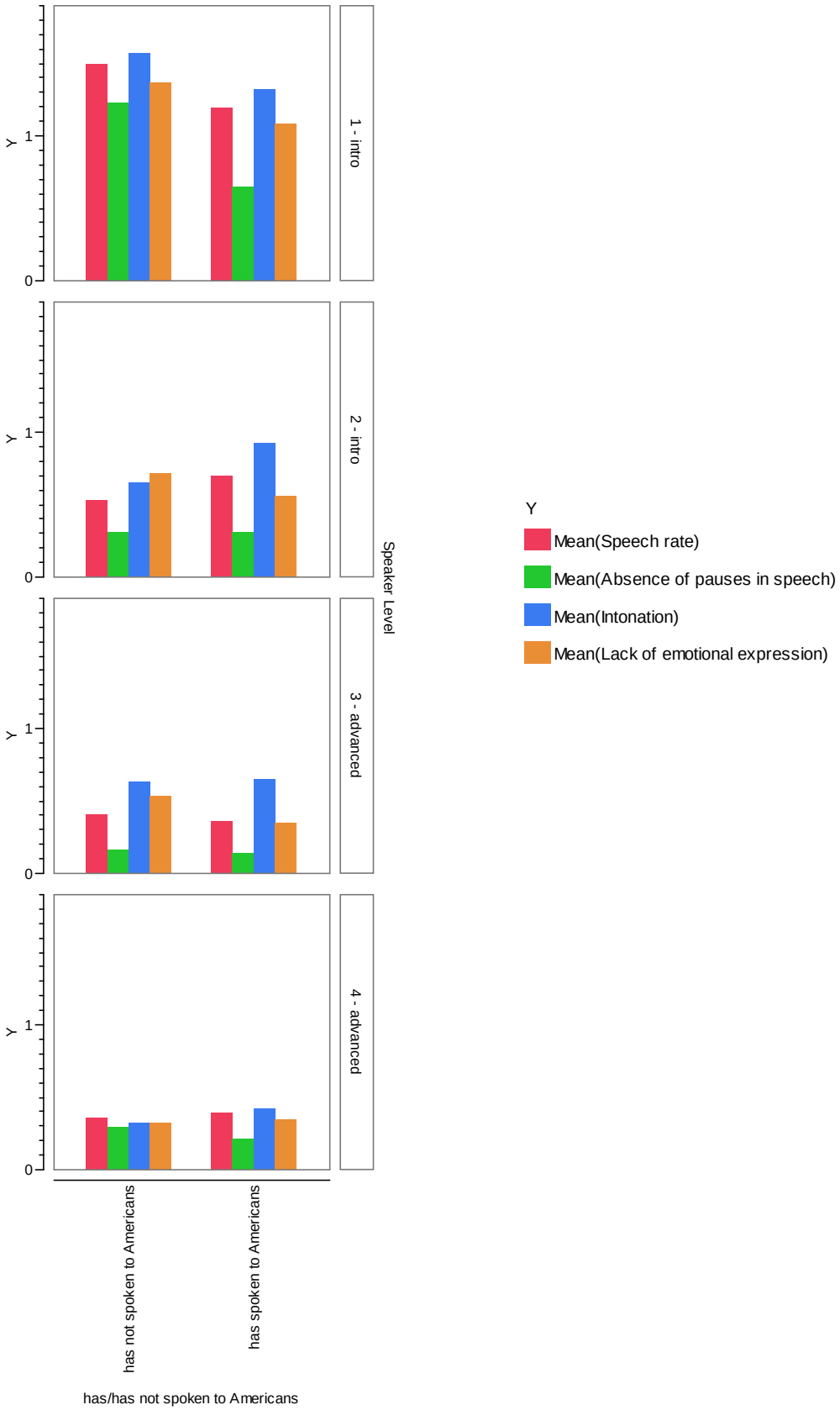
Russians who have not had prior contact with Americans, however, rated incorrect use of “stress” as having most interfered with their intelligibility of Introductory Level 1, 2 and Advanced Level 3 speakers. The listeners judged “pauses in words” as most salient among Advanced Level 4 speakers.



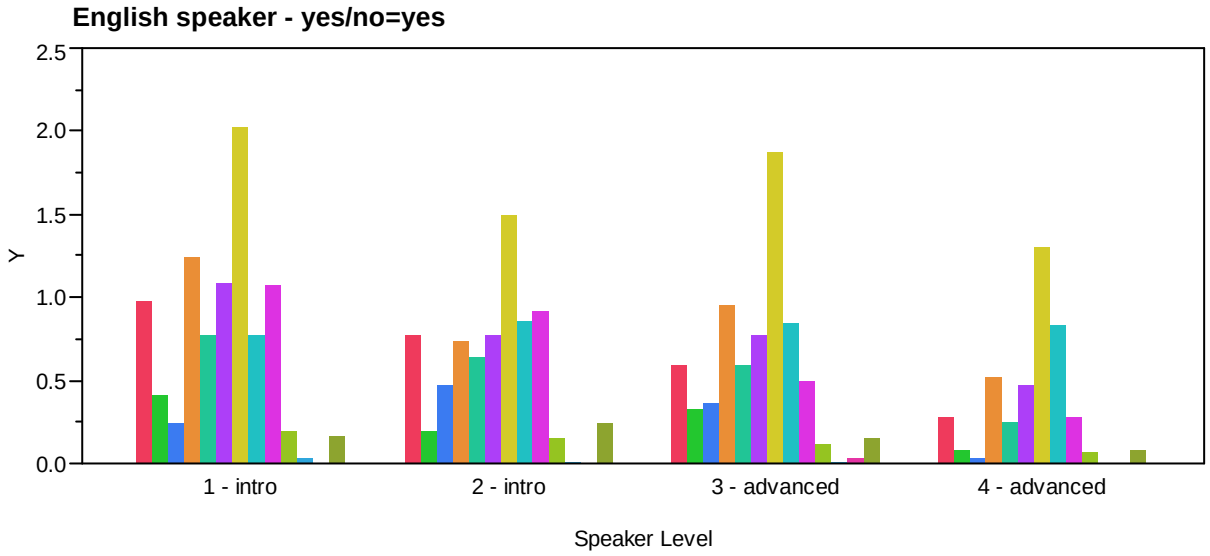

Y
2
1
0
1 - intro
2 - intro
3 - advanced
4 - advanced
Speaker Level
Y
Mean(Changing of words)
Mean(Pauses in words)
Mean(Repetition of first syllable)
Mean(Pronunciation of words in parts)
Mean(Stress)
has not spoken to Americans
has spoken to Americans
has/has not spoken to Americans

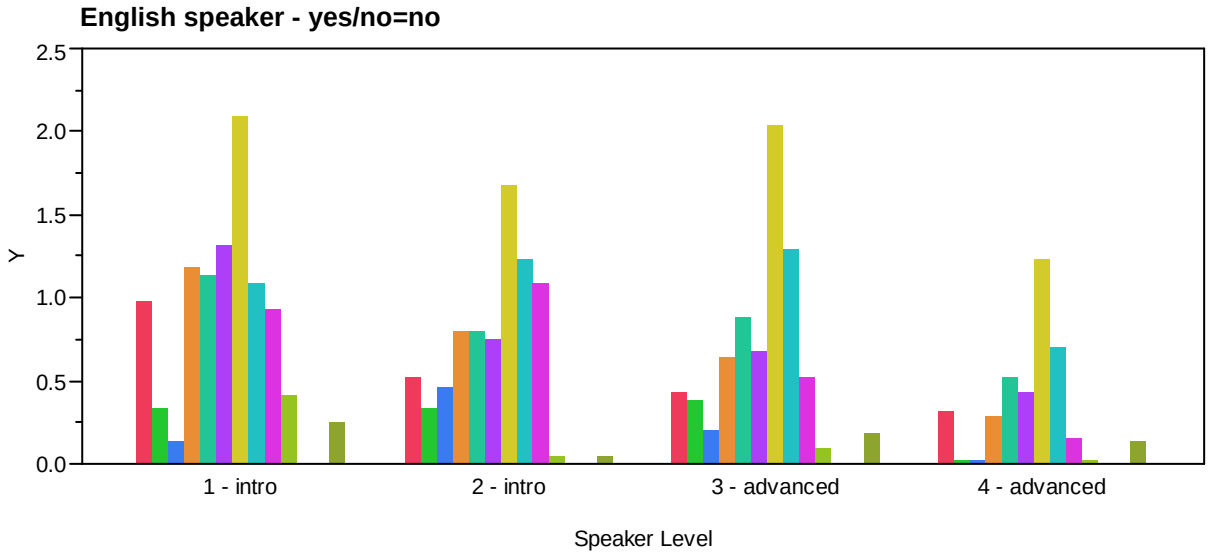
Russians who have had prior contact with Americans rated incorrect intonation by speakers of all levels as the most serious error in the “speech” category. Russians who have not previously spoken with Americans also rated “intonation” as the most salient L-2 error, but only among Introductory Level 1 and Advanced Level 3 speakers. Among Introductory Level 2 speakers, however, “lack of emotional expression” most negatively affected L-1 intelligibility, while “speech rate” interfered with the most with listener intelligibility of Advanced Level 4 speech.




Y
1
0
1 - intro
2 - intro
3 - advanced
4 - advanced
Speaker Level
has not spoken to Americans
has spoken to Americans
has/has not spoken to Americans
Y
Mean(Speech rate)
Mean(Absence of pauses in speech)
Mean(Intonation)
Mean(Lack of emotional expression)

Finally, I examine the ratings given to speakers of different levels by English- and non-English-speaking Russians. Listeners in this group rated "'hard' pronunciation of 'l' and other consonants" as the most prominent error in the "sounds" category among speakers of all levels.





Y

Mean(Swallowing of sounds)

Mean(Adding of extra sounds in words)

Mean(Adding of "o" after preposition)

Mean(Replacement of one vowel with another)

Mean(Softening of consonants)

Mean(Incorrect pronunciation of hard consonants)

Mean("Hard" pronunciation of "l" and other consonants)

Mean(Incorrect pronunciation of hushers)

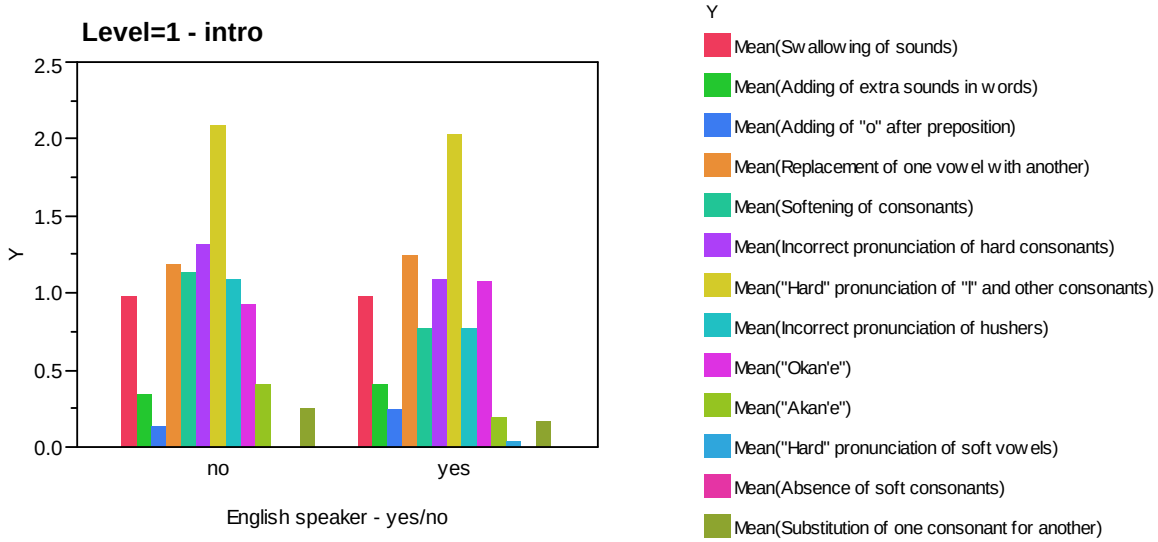
Mean("Okan'e")

Mean("Akan'e")

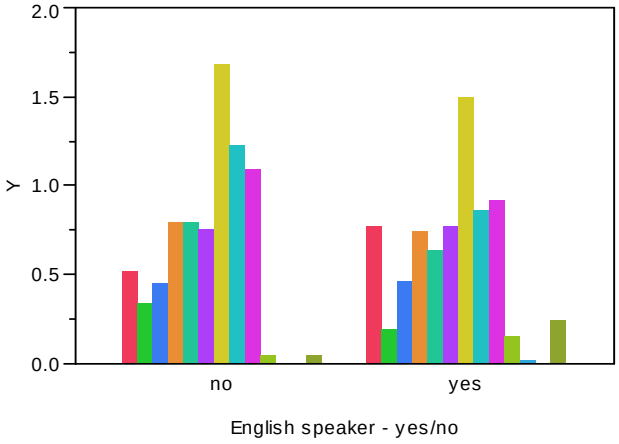
Mean("Hard" pronunciation of soft vowels)

Mean(Absence of soft consonants)

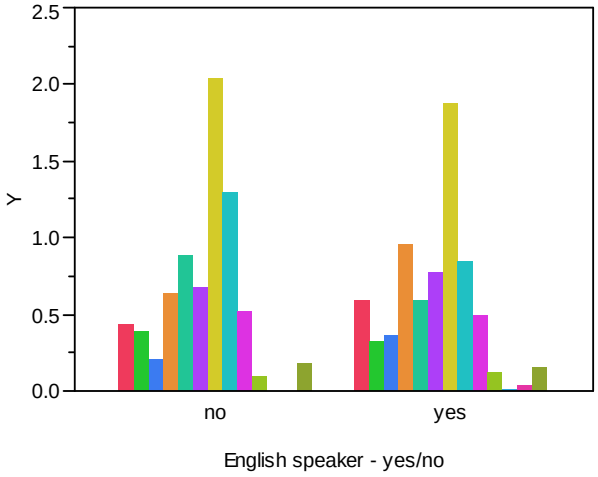
Mean(Substitution of one consonant for another)



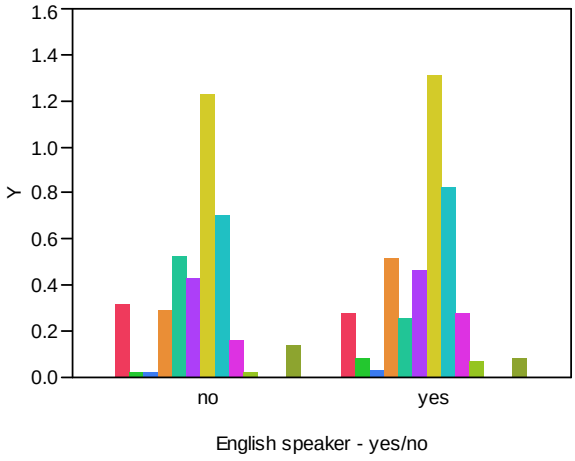
Level=2 - intro



Level=3 - advanced

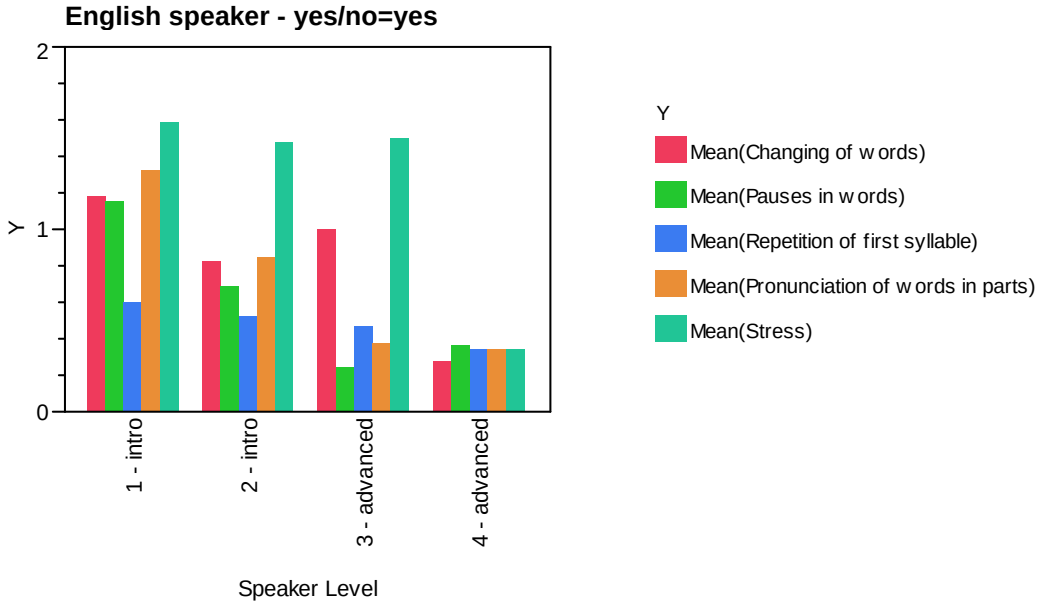


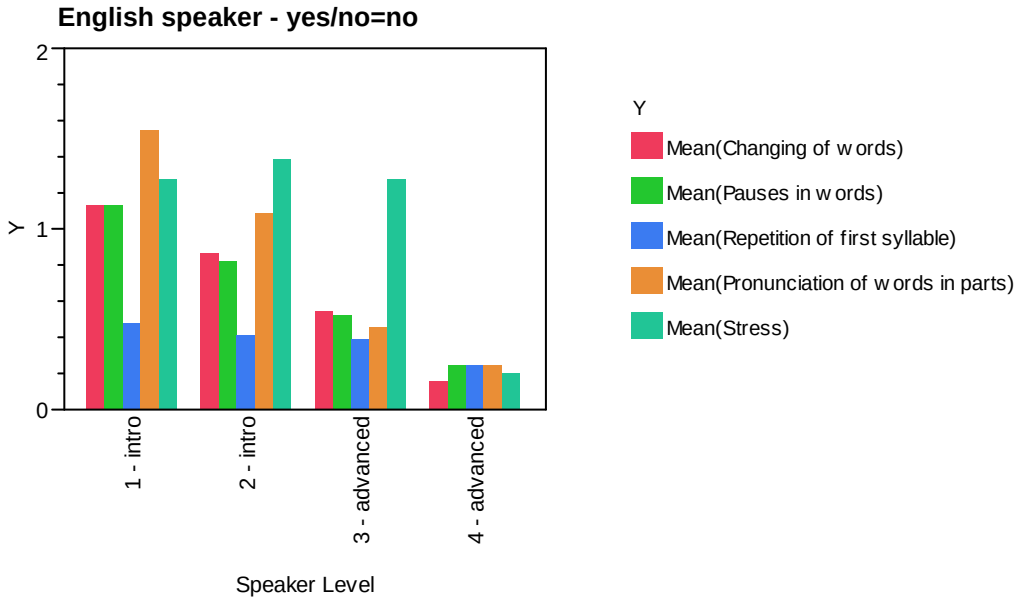
Level=4 - advanced

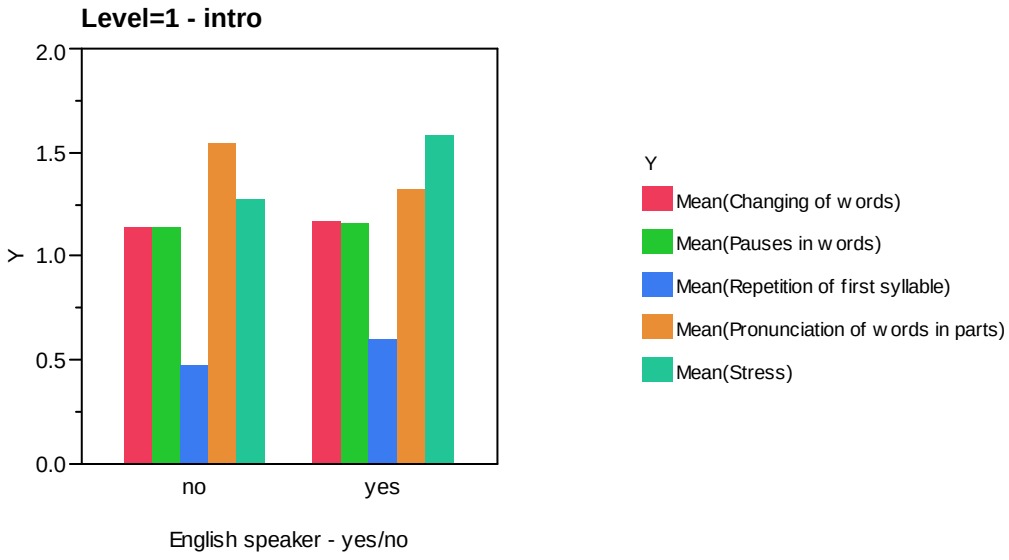


When examining the most salient errors in the “words” category according to English- and non-English-speaking Russians one notices that listeners who speak English rated “stress” as having most seriously interfered with their intelligibility of Level 1 and 2 and Advanced Level 3 speech. However, these listeners rated “pauses in words” as the most acute error by Advanced Level 4 speakers.

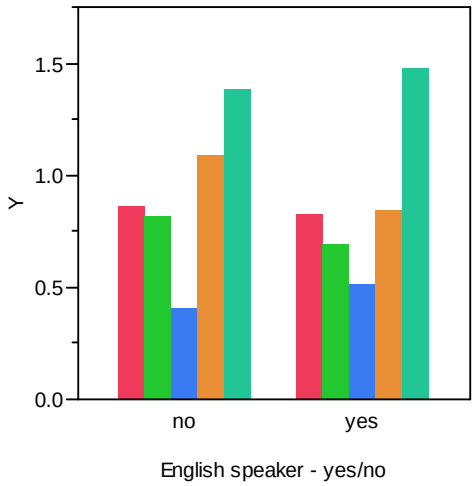
Conversely, Russians who do not speak English rated “pronunciation of words in segments” as the most salient error among Introductory Level 1 speakers, while incorrect stress by Introductory Level 2 and Advanced Level 3 speakers caused these listeners to react very negatively. Regarding Advanced Level 4 speech, listeners found three errors equally frustrating - “pauses in words,” “repetition of first syllable” and “pronunciation of words in segments.”



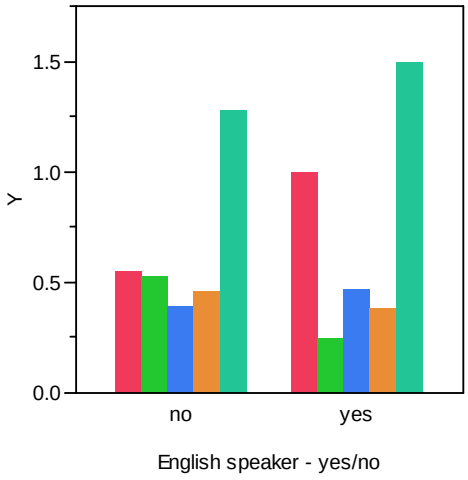

English speaker - yes/no=no
2
1
0
Y
1 - intro
2 - intro
3 - advanced
4 - advanced
Speaker Level
Y
Mean(Changing of words)
Mean(Pauses in words)
Mean(Repetition of first syllable)
Mean(Pronunciation of words in parts)
Mean(Stress)


Level=1 - intro
2.0
1.5
1.0
0.5
0.0
Y
no
yes
English speaker - yes/no
Y
Mean(Changing of words)
Mean(Pauses in words)
Mean(Repetition of first syllable)
Mean(Pronunciation of words in parts)
Mean(Stress)

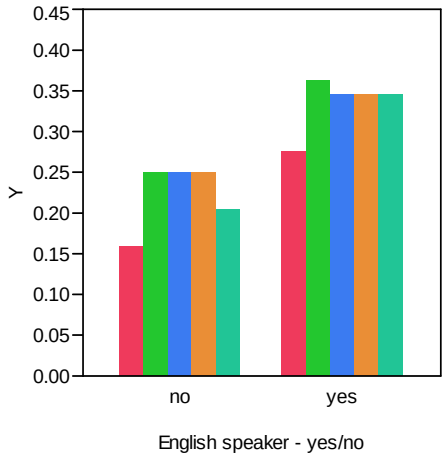
Level=2 - intro



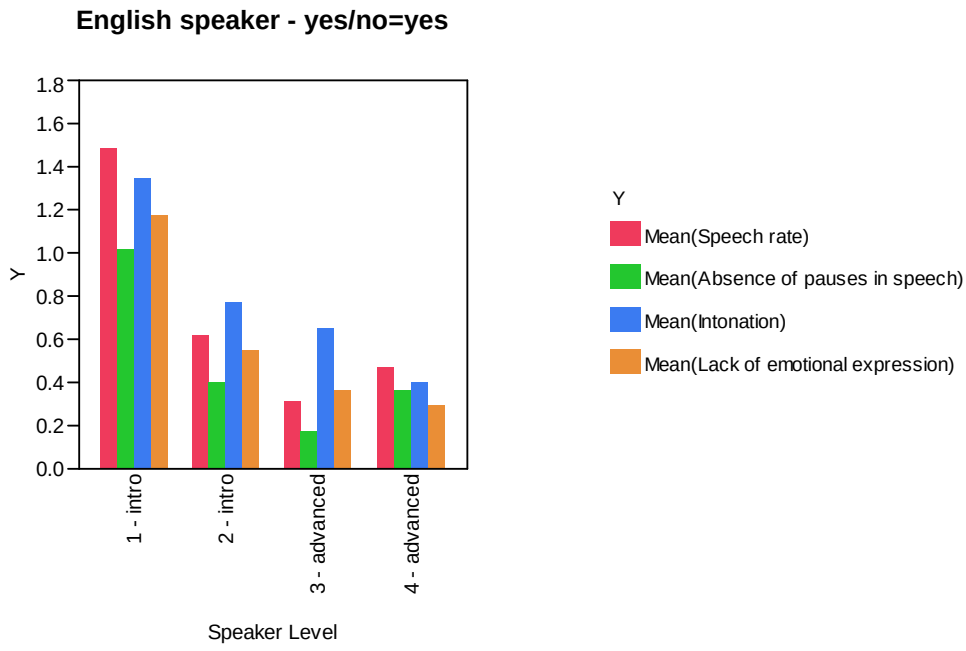
Level=3 - advanced

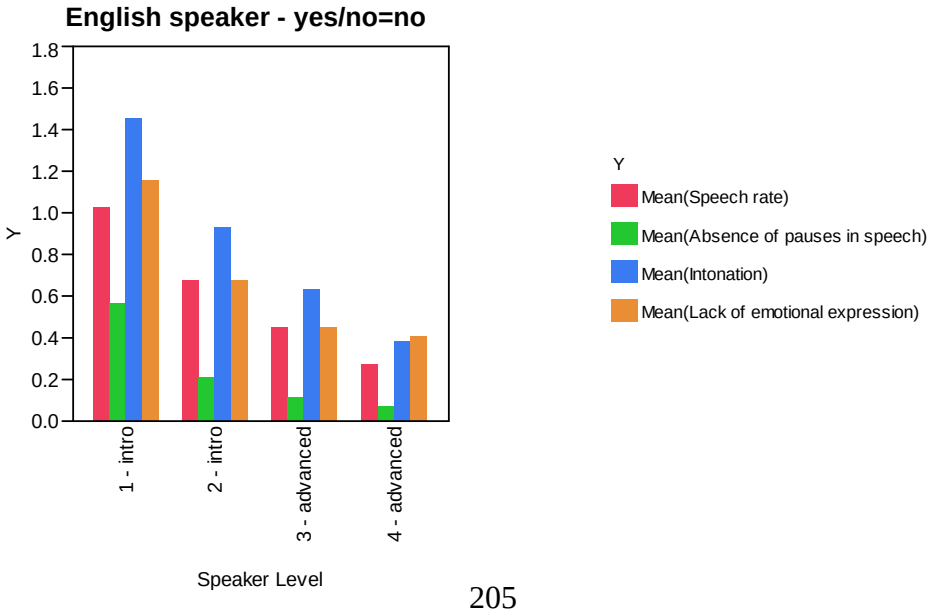


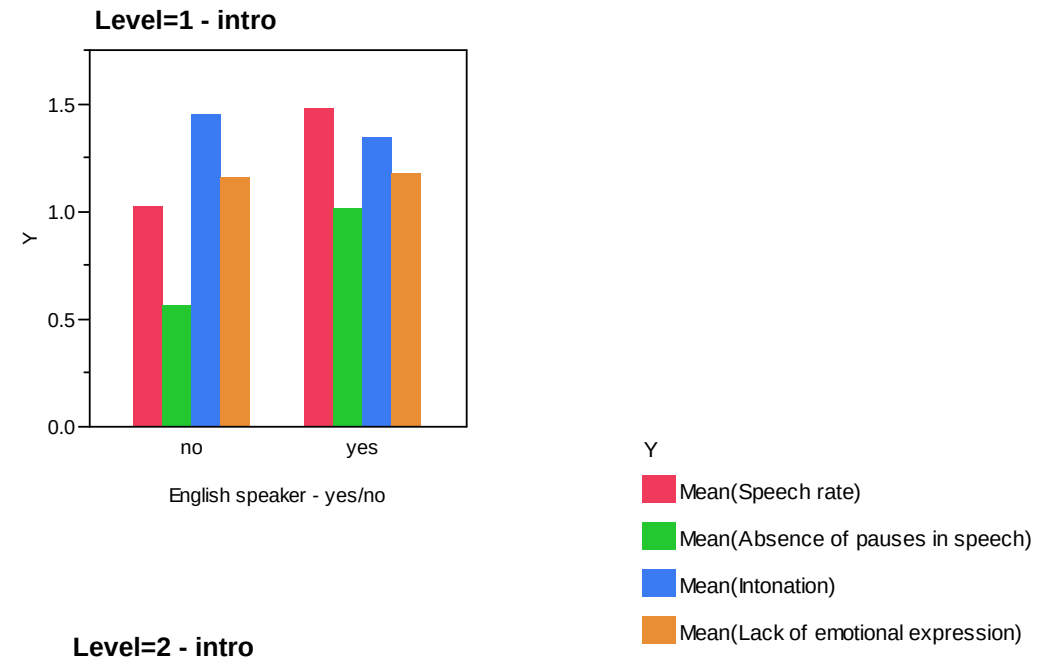
Level=4 - advanced

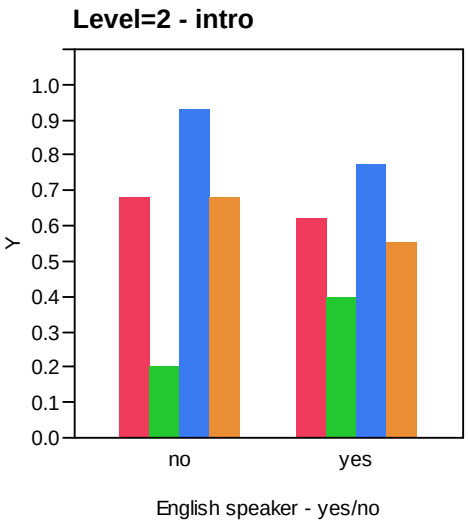


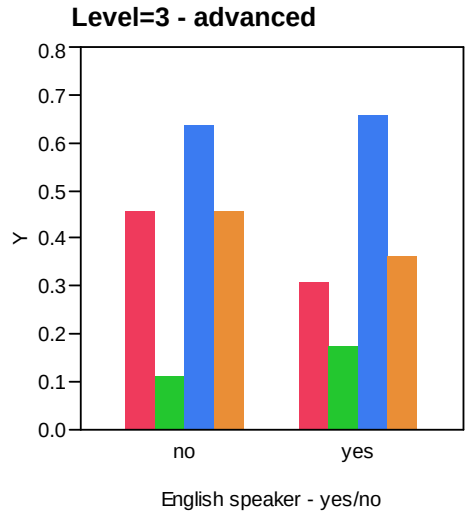
Russians who speak English rated Introductory Level 1 and Advanced Level 4 “speech rate” as the most critical error in the “speech” category. These listeners rated “intonation” among Introductory Level 2 and Advanced Level 3 speakers as having interfered with intelligibility. Russians who do not speak English rated “intonation” as the most salient error by Introductory Level 1 and 2 and Advanced Level 3 speakers, while these listeners rated “lack of emotional expression” as most pronounced among Advanced Level 4 speakers.

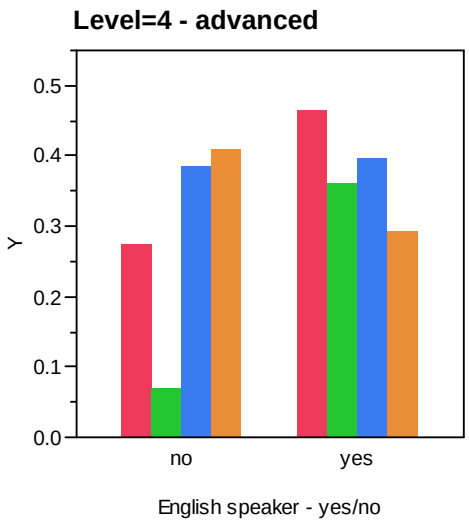





Level=1 - intro
1.5
1.0
0.5
0.0
Y
no
yes
English speaker - yes/no
Y
Mean(Speech rate)
Mean(Absence of pauses in speech)
Mean(Intonation)
Mean(Lack of emotional expression)


Level=2 - intro
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.0
Y
no
yes
English speaker - yes/no

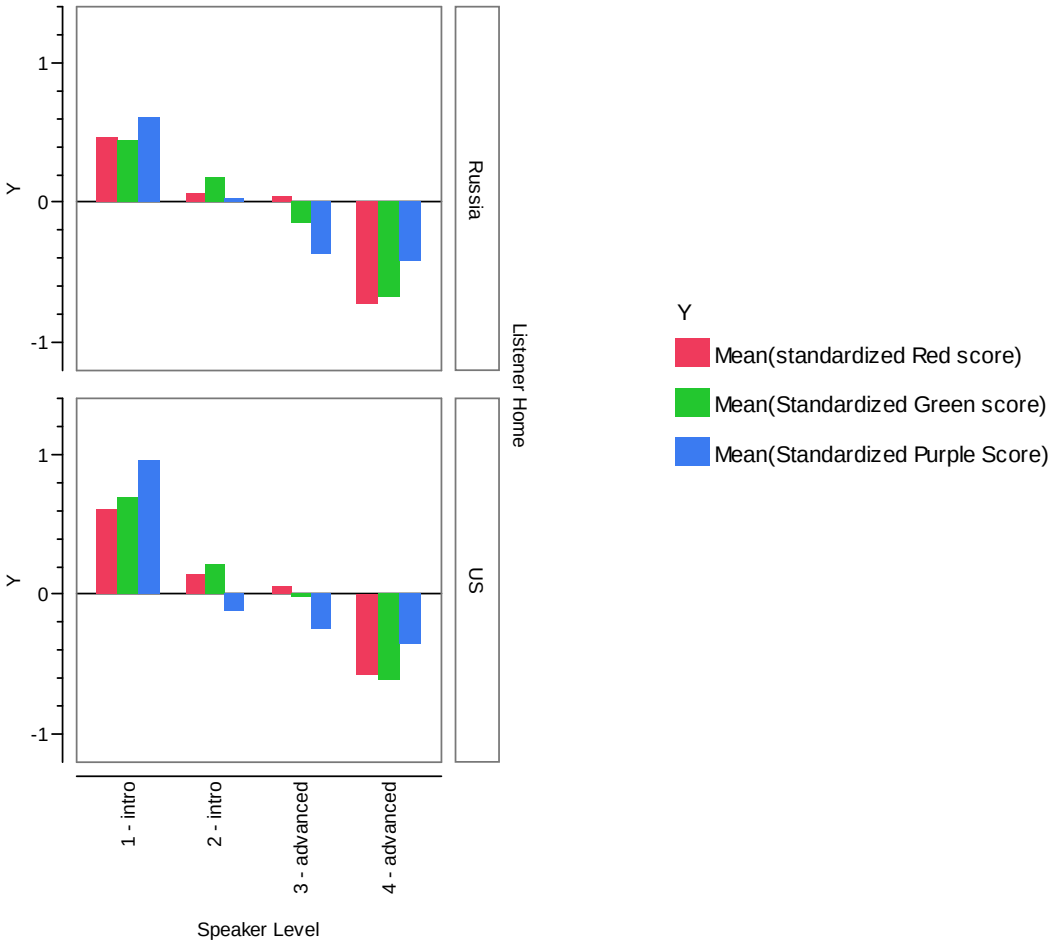

Level=3 - advanced
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.0
Y
no
yes
English speaker - yes/no

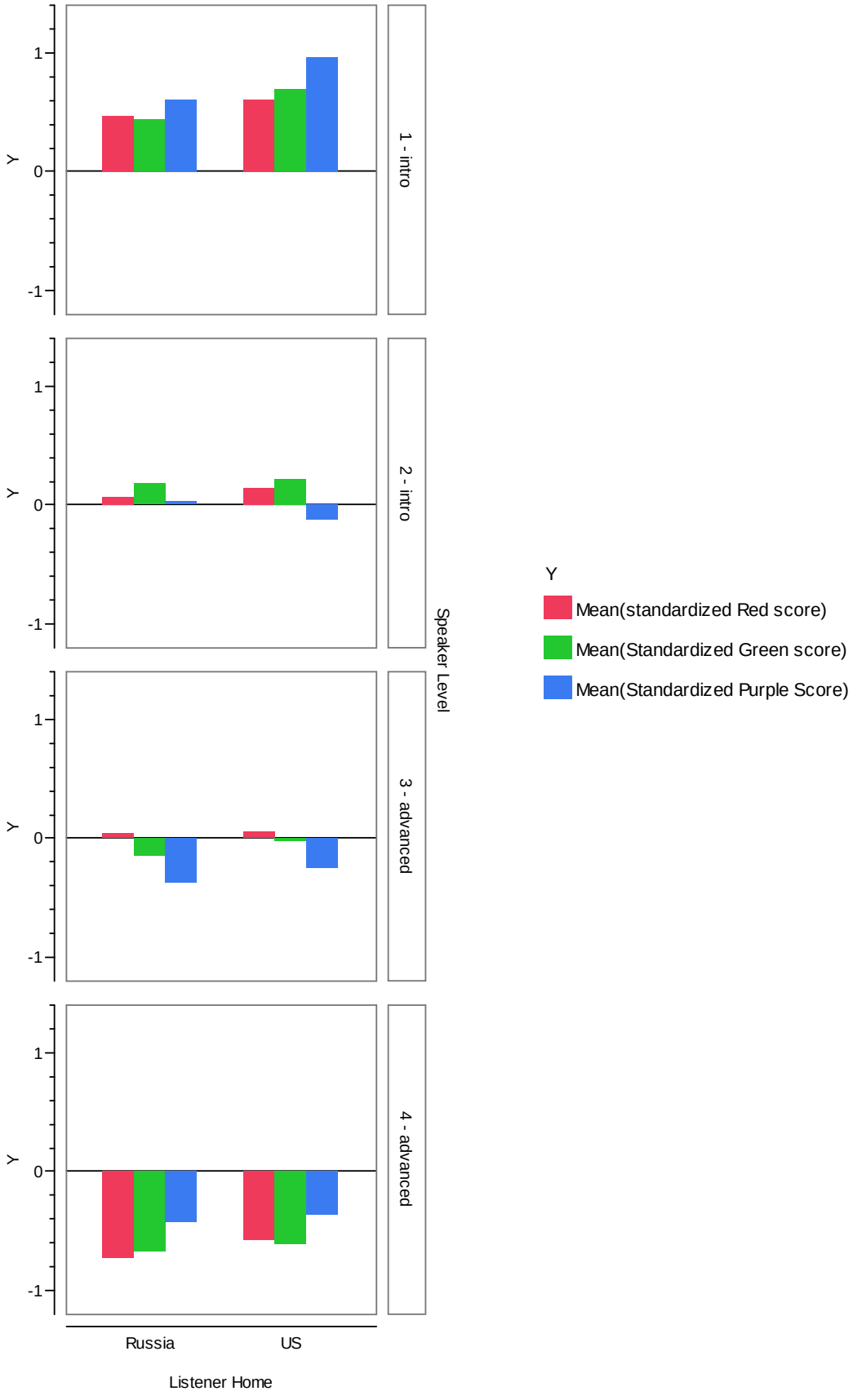


I now compare the totals of each speaker level in the “sounds,” “words” and “speech” categories to examine how they were rated by the four groups of listeners. Bars above the 0.0 line indicate scores that are above the average problem scores or incorrect, while those below the 0.0 line are below the average problem score, or correct. I begin by evaluating the different categorical ratings given to speakers by Russians from Russia and the US.

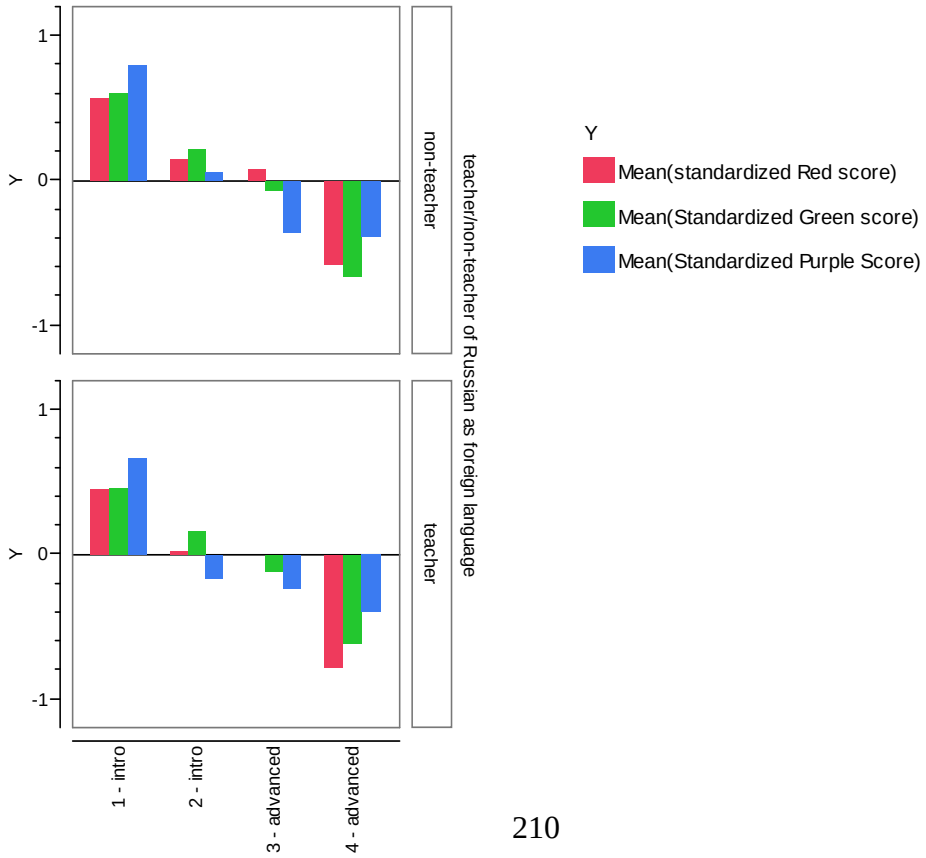
Russians from Russia rated total error scores within the “speech” category as most salient among Introductory Level 1 speakers, while total scores in “words” were rated as most salient among Introductory Level 2 speakers. However, among Advanced Level 3 speakers only total scores made in “sounds” were rated as incorrect; scores in “words” and “speech” were negative or below the average problem score level, with the best scores recorded in the “speech” category. Among Advanced Level 4 speakers no errors in any of the three categories were considered problematic. Additionally, the scores of speakers were the highest in the “sounds” category.

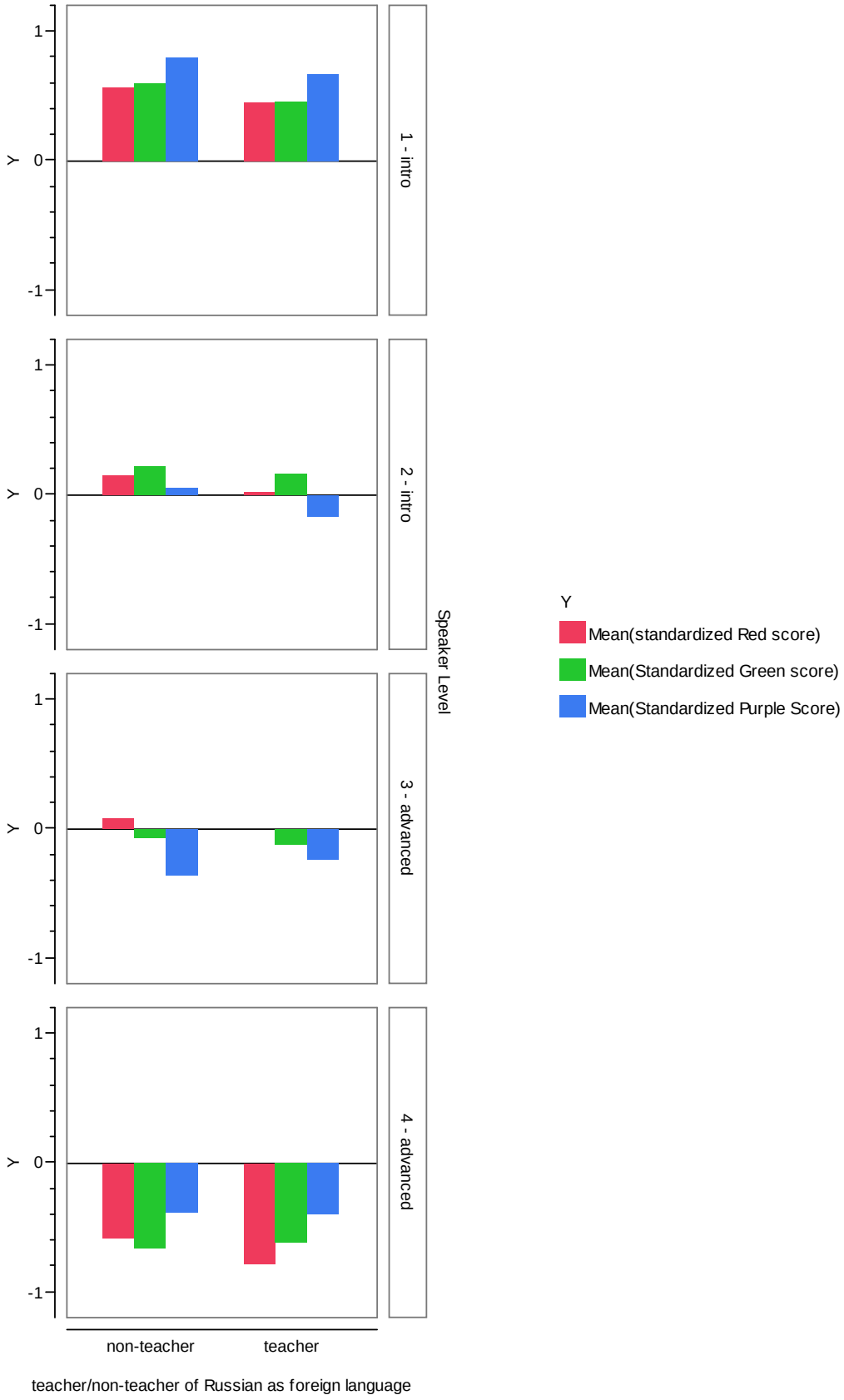
Russians from the US rated the scores in the three categories as positive, or above the average problem score level, for Introductory Level 1 speakers, with speaker errors in the "speech" category judged as more salient than in the other two categories. Regarding listener scores for Introductory Level 2 speech, total error scores in both "sounds" and "words" were positive, or incorrect, with errors in "words" rated as more salient than in "sounds." However, "speech" total scores of Introductory Level 2 speakers were negative, or correct. A similar picture emerged for Advanced Level 3 speakers. In particular, those speakers had problematic total "sounds" scores, while their "words" and "speech" scores were correct. Moreover, "speech" scores were better than in "words." Scores in all three categories were negative for Advanced Level 4 speakers with the best scores recorded in the "words" category.



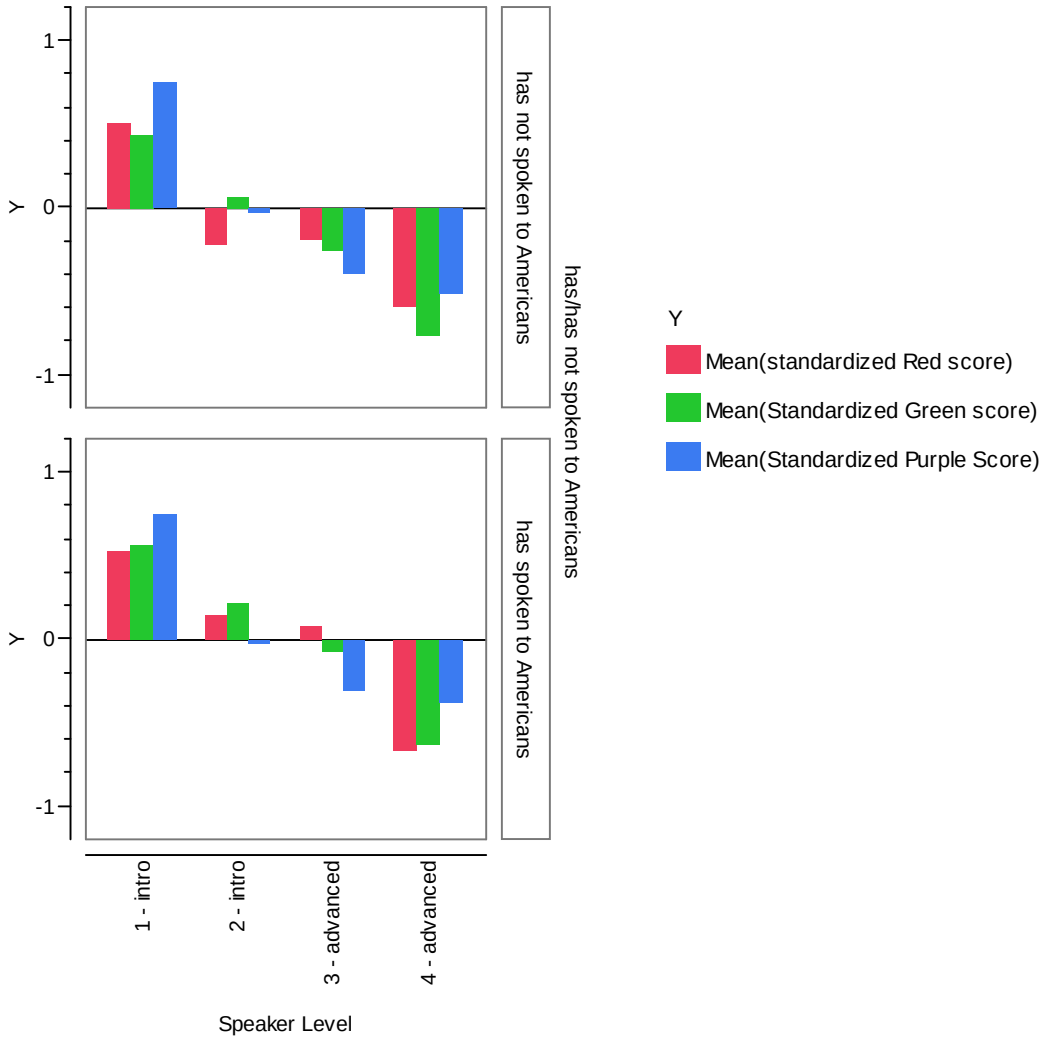

1 - intro
2 - intro
3 - advanced
4 - advanced
Speaker Level
Y
1
0
-1
Russia
US
Listener Home
Y
Mean(standardized Red score)
Mean(Standardized Green score)
Mean(Standardized Purple Score)

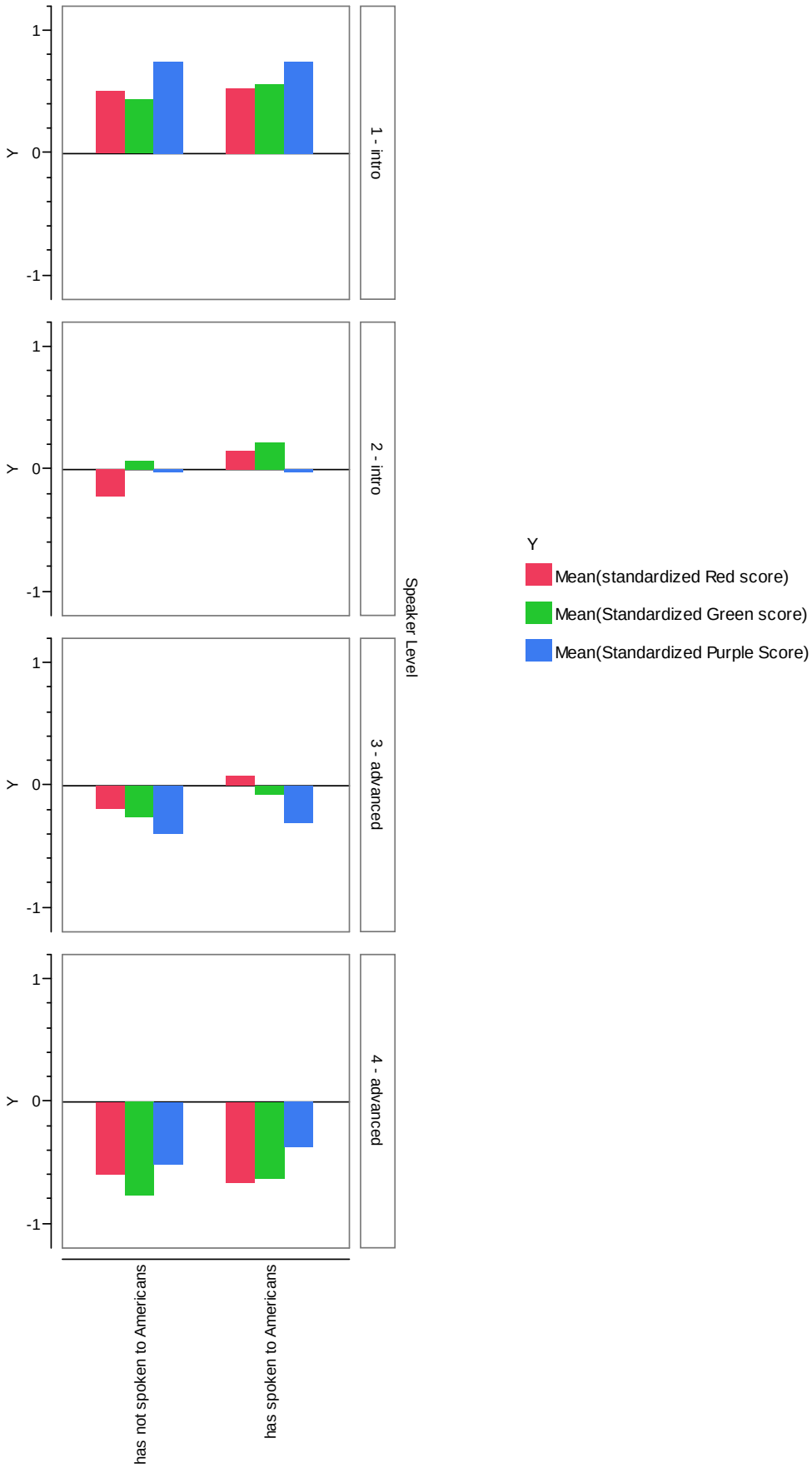
Both teachers and non-teachers of Russian as a Second Language rated total "speech" scores as the most salient among Introductory Level 1 speakers. However, teachers rated the total scores of Introductory Level 2 speakers in the "sounds" and "words" categories as above the average problem score level, or incorrect, while "speech" scores were correct. Non-teachers, on the other hand, rated the total scores of Introductory Level 2 speakers as positive, or problematic, in all three categories. Teachers rated the total number of "sounds" scores of Advanced Level 3 speakers at exactly 0, while total "words" and "speech" scores were negative, or correct. Additionally, scores in the latter category were better than in the former. Non-teachers also rated errors in "words" and "speech" as unproblematic, and determined that speaker scores in "speech" were better than in "words." Teachers and non-teachers rated the scores of all three categories as negative for Advanced Level 4 speakers with the best scores recorded in the "words" category.




1
0
-1
Y
1 - intro
2 - intro
3 - advanced
4 - advanced
Speaker Level
non-teacher
teacher
teacher/non-teacher of Russian as foreign language
Y
Mean(standardized Red score)
Mean(Standardized Green score)
Mean(Standardized Purple Score)

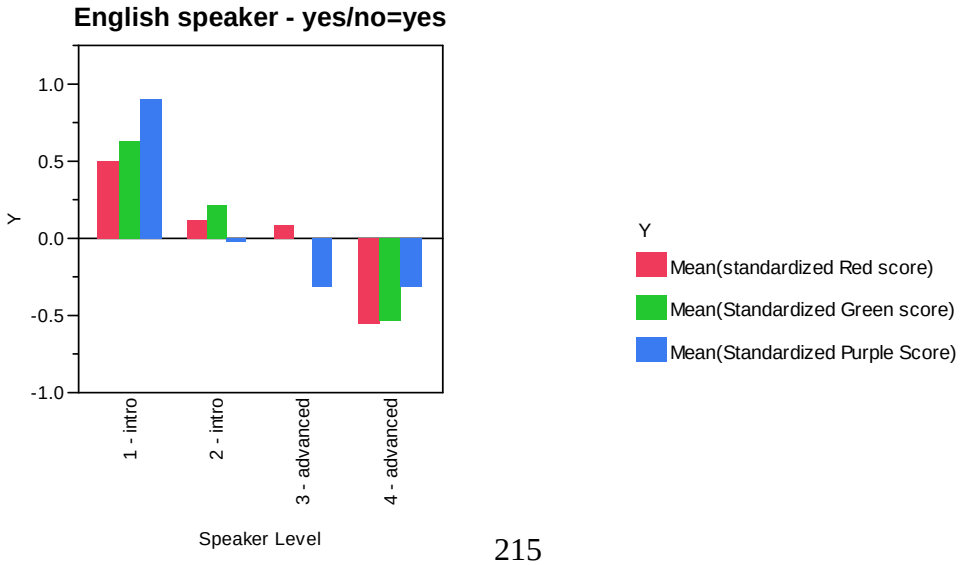
Russians who have and have not had prior contact with Americans both rated the total scores of Introductory Level 1 speakers as positive, or problematic, with the most errors heard in the “speech” category. Russians who have previously spoken to Americans rated the total scores of Introductory Level 2 speakers in “sounds” and “words” as above the level of average problem scores, unlike “speech” errors, which were below this level. Russians who have not previously spoken to Americans rated only the total “words” scores of Introductory Level 2 speakers as positive, or problematic, while the total scores of these speakers were negative, or correct, in “sounds” and “Speech.” Russians who have had prior contact with Americans gave Advanced Level 3 learners both positive and negative total scores – “sounds” were above the average problem score level, while “words” and “speech” were below it, with scores higher for “Speech.” Russians who have not had prior contact with Americans determined that the total scores of Advanced Level 3 speakers were correct with the best scores recorded in the ““speech” category. Finally, all three total scores of the Advanced Level 4 speakers were rated as negative by both groups of Russian listeners. Russians who have had prior contact with Americans rated scores highest in the category of “sounds,” while their counterparts gave L-2 speakers the best scores in “words.”

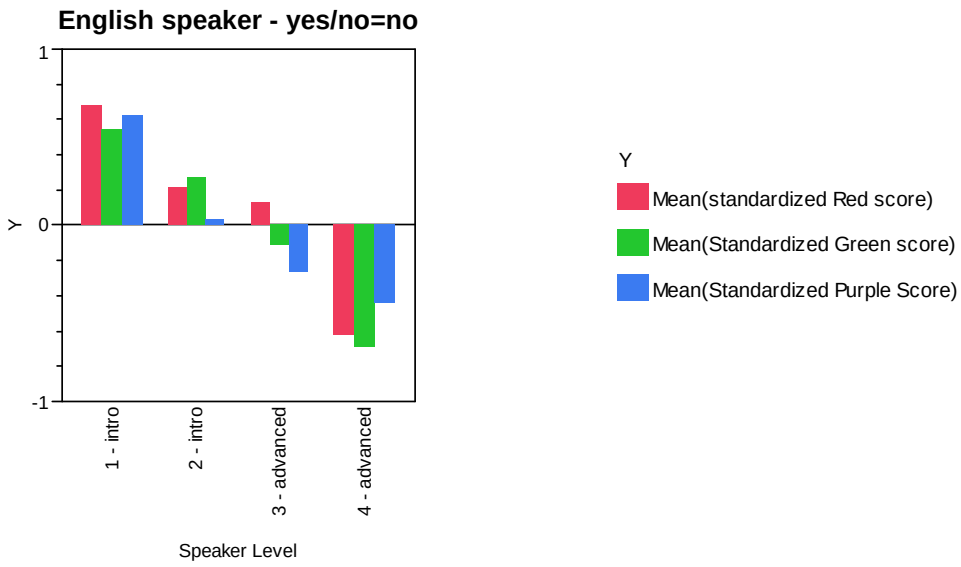

1
0
-1
Y
has not spoken to Americans
has spoken to Americans
has/has not spoken to Americans
1 - intro
2 - intro
3 - advanced
4 - advanced
Speaker Level
Y
Mean(standardized Red score)
Mean(Standardized Green score)
Mean(Standardized Purple Score)

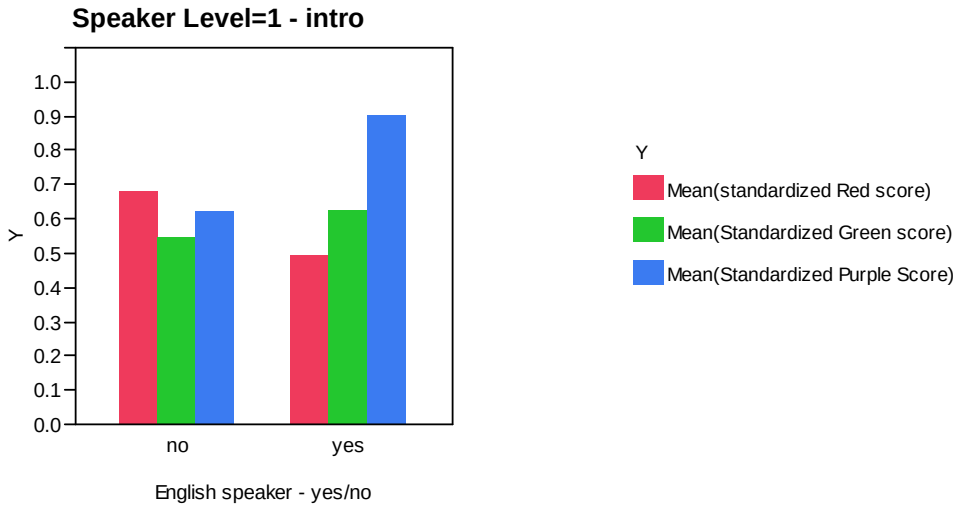

1 - intro
2 - intro
3 - advanced
4 - advanced
Speaker Level
Y
1
0
-1
has not spoken to Americans
has spoken to Americans
has/has not spoken to Americans
Y
Mean(standardized Red score)
Mean(Standardized Green score)
Mean(Standardized Purple Score)

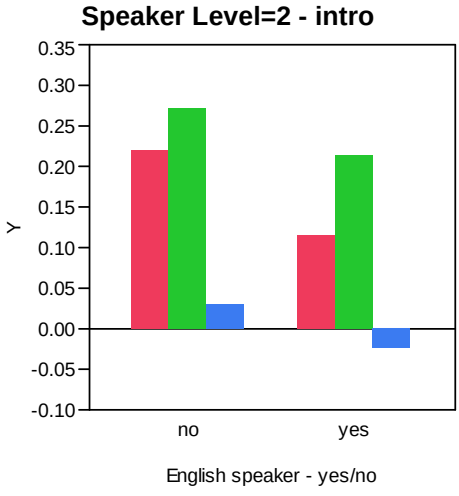
Russians who speak English rated the total scores of Introductory Level 1 speakers as positive, or problematic, with the most errors heard in the “speech” category. According to these listeners, the total scores of Introductory Level 2 speakers were above the average problem score level in the “sounds” and “words” categories, with more errors heard in the latter category, while “speech” scores were negative. Total “sounds” scores of Advanced Level 3 speakers were above the level of average problem scores, “words” scores were exactly average, and “speech” scores were negative. However, Russians who speak English determined that the total scores of Advanced Level 4 speakers were negative, with speakers having performed best in the “sounds” category.

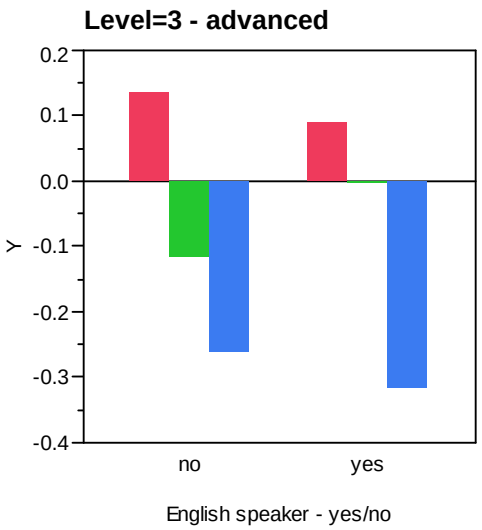
The results from data provided by non-English-speaking Russians indicate that total scores of Introductory Level 1 speakers were judged to be above the average problem score level, with the most errors heard in “sounds.” Introductory Level 2 speakers had total scores that were positive in all three categories, with the most errors occurring in the “words” category. Scores for “sounds” of Advanced Level 3 speakers were positive, while “words” and “speech” scores were negative, with the highest scores given for “speech.” Finally, all three totals of Advanced Level 4 scores were negative with speaker performance highest in the “words” category.

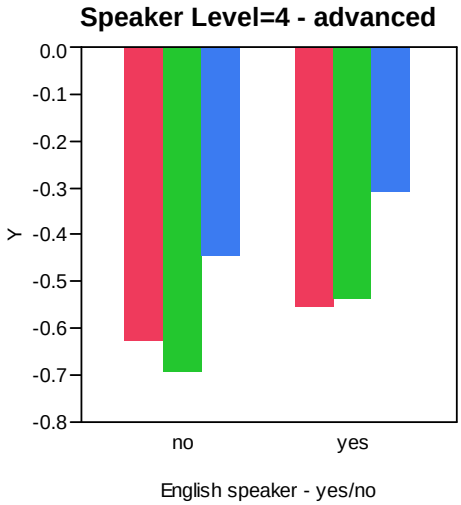



English speaker - yes/no=no
1
0
-1
Y
1 - intro
2 - intro
3 - advanced
4 - advanced
Speaker Level
Y
Mean(standardized Red score)
Mean(Standardized Green score)
Mean(Standardized Purple Score)


Speaker Level=1 - intro
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.0
Y
no
yes
English speaker - yes/no
Y
Mean(standardized Red score)
Mean(Standardized Green score)
Mean(Standardized Purple Score)


Speaker Level=2 - intro
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
-0.05
-0.10
Y
no
yes
English speaker - yes/no


Level=3 - advanced
0.2
0.1
0.0
-0.1
-0.2
-0.3
-0.4
Y
no
yes
English speaker - yes/no


Speaker Level=4 - advanced
0.0
-0.1
-0.2
-0.3
-0.4
-0.5
-0.6
-0.7
-0.8
Y
no
yes
English speaker - yes/no

3.2 Factors That Impede Comprehension of L-2 Russian Speakers

Part II presents the statistical data used to answer the question, "In the spoken language of American learners of Russian, which phonetic, lexical and syntactical aspects of their speech interfere with the comprehensibility for a native speaker of Russian?"

I hypothesized that incorrect L-2 pronunciation and word choice will negatively affect the comprehension of Russians in Russia, Russians who have not had prior contact with Americans and Russians who do not know English. I also hypothesized that lack of lexicon by beginning-level speakers will complicate comprehension for listeners of all groups.

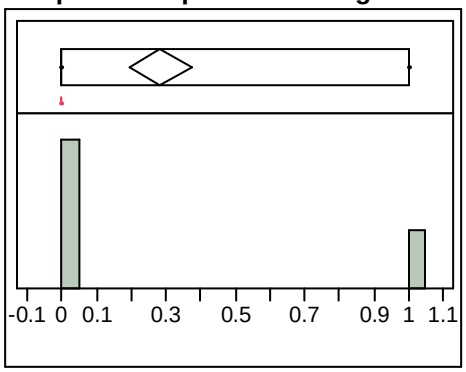
In this section I used histograms, mosaic plots, bar graphs, pie charts to display the results of the analysis. The histograms illustrate data distribution based on speaker level and rubric total (i.e. comprehension most impeded due to grammar, incorrect phrases, incorrect word choice, incorrect pronunciation or too little lexicon). It should also be noted a "1" was used in the data collection to indicate that a listener thought the speaker had committed one of the above-mentioned errors. If, however, no error was heard a "0" was used. Thus, the maximum number of points given for each rubric was "1."

3.2.1 – Histograms

When looking at the histogram of errors made by Introductory Level 1 and 2 speakers and "comprehension most impeded due to grammar" one sees that the data distribution is identical for Introductory Level 1 and 2 speakers. In particular, the middle

scores ranged from 1-0 with a median of 0. The mean for Introductory Level 1 speakers, however, was 0.284, while it was 0.2745 for Introductory Level 2 speakers.

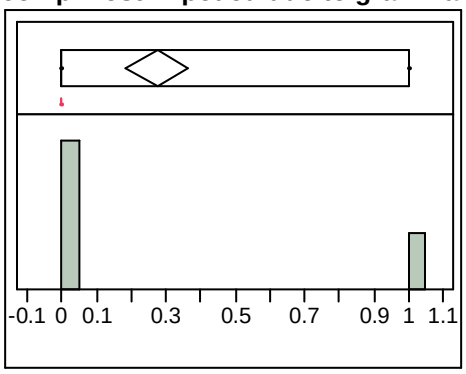
Distributions Speaker Level 1 - intro comp most impeded due to grammar



Quantiles

100.0%	maximum	1.0000
99.5%		1.0000
97.5%		1.0000
90.0%		1.0000
75.0%	quartile	1.0000
50.0%	median	0.0000
25.0%	quartile	0.0000
10.0%		0.0000
2.5%		0.0000
0.5%		0.0000
0.0%	minimum	0.0000
Mean		0.2843137
N		102

Distributions Speaker Level 2 - intro comp most impeded due to grammar

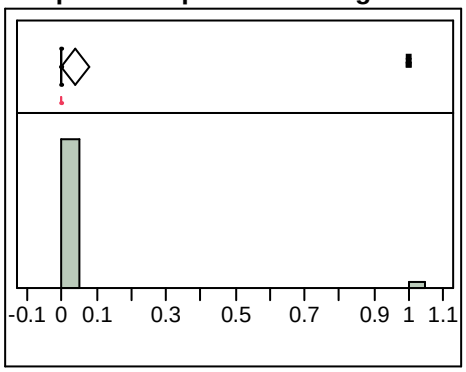


Quantiles

100.0%	maximum	1.0000
99.5%		1.0000
97.5%		1.0000
90.0%		1.0000
75.0%	quartile	1.0000
50.0%	median	0.0000
25.0%	quartile	0.0000
10.0%		0.0000
2.5%		0.0000
0.5%		0.0000
0.0%	minimum	0.0000
Mean		0.2745098
N		102

There was also little difference between the data distributions for Advanced Level 3 and 4 speakers and their scores for “comprehension most impeded due to grammar.” Although both groups had middle-range scores of 0-0, the mean for Advanced Level 4 speakers was lower at .0098 than for the Advanced Level 3 group at .0392.

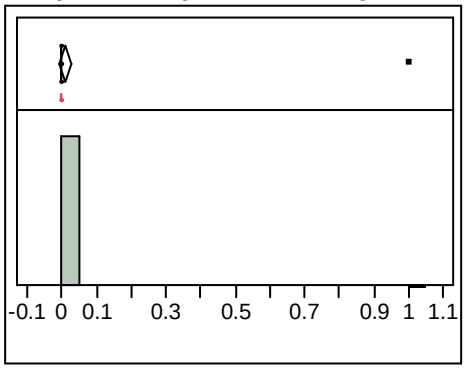
Distributions Speaker Level 3 - advanced comp most impeded due to grammar



Quantiles

100.0%	maximum	1.0000
99.5%		1.0000
97.5%		1.0000
90.0%		0.0000
75.0%	quartile	0.0000
50.0%	median	0.0000
25.0%	quartile	0.0000
10.0%		0.0000
2.5%		0.0000
0.5%		0.0000
0.0%	minimum	0.0000
Mean		0.0392157
N		102

Distributions Speaker Level 4 - advanced comp most impeded due to grammar

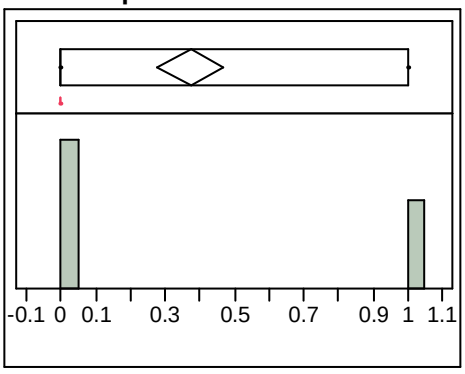


Quantiles

100.0%	maximum	1.0000
99.5%		1.0000
97.5%		0.0000
90.0%		0.0000
75.0%	quartile	0.0000
50.0%	median	0.0000
25.0%	quartile	0.0000
10.0%		0.0000
2.5%		0.0000
0.5%		0.0000
0.0%	minimum	0.0000
Mean		0.0098039
N		102

The data distributions of “incorrect phrases” used by Introductory Level 1 and 2 speakers are similar, as the middle-range scores of both were between 1-0 and their means differed only slightly at 0.3725 for the former group and 0.3137 for the latter.

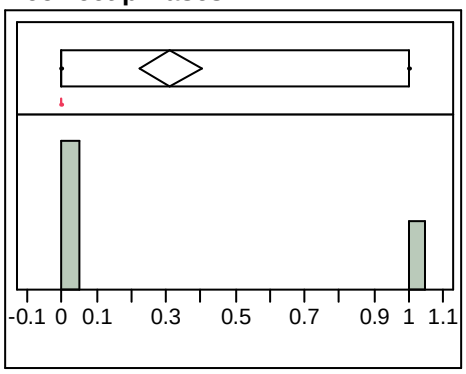
Distributions Speaker Level 1 - intro incorrect phrases



Quantiles

100.0%	maximum	1.0000
99.5%		1.0000
97.5%		1.0000
90.0%		1.0000
75.0%	quartile	1.0000
50.0%	median	0.0000
25.0%	quartile	0.0000
10.0%		0.0000
2.5%		0.0000
0.5%		0.0000
0.0%	minimum	0.0000
Mean		0.372549
N		102

Distributions Speaker Level 2 - intro incorrect phrases

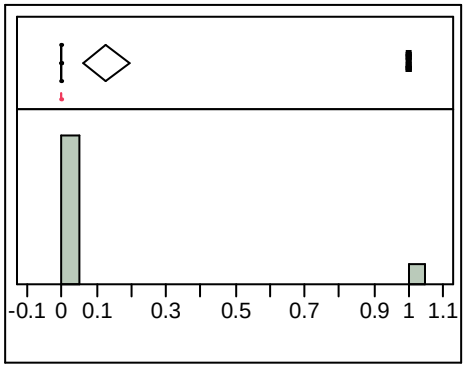


Quantiles

100.0%	maximum	1.0000
99.5%		1.0000
97.5%		1.0000
90.0%		1.0000
75.0%	quartile	1.0000
50.0%	median	0.0000
25.0%	quartile	0.0000
10.0%		0.0000
2.5%		0.0000
0.5%		0.0000
0.0%	minimum	0.0000
Mean		0.3137255
N		102

The middle-range scores of Advanced 3 and 4 speakers and "incorrect phrases" were 0-0; however, Advanced 3 speakers had a mean of 0.1274, while the mean for Advanced Level 4 speakers was 0.0588.

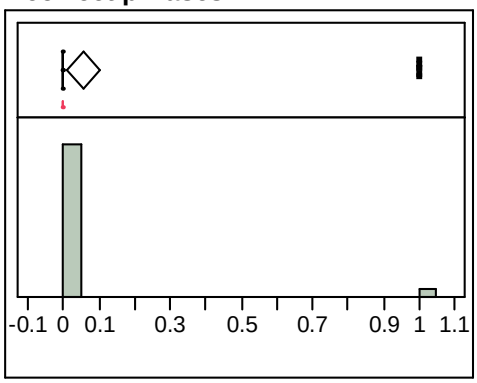
Distributions Speaker Level 3 - advanced incorrect phrases



Quantiles

100.0%	maximum	1.0000
99.5%		1.0000
97.5%		1.0000
90.0%		1.0000
75.0%	quartile	0.0000
50.0%	median	0.0000
25.0%	quartile	0.0000
10.0%		0.0000
2.5%		0.0000
0.5%		0.0000
0.0%	minimum	0.0000
Mean		0.127451
N		102

Distributions Speaker Level 4 - advanced incorrect phrases

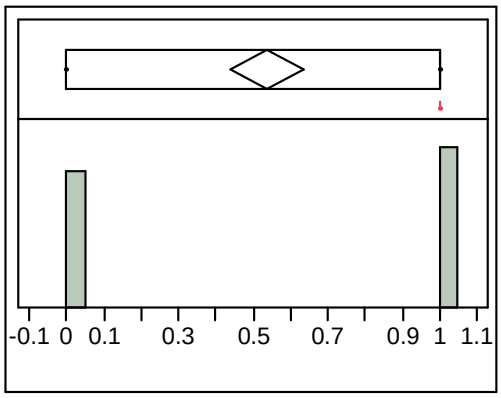


Quantiles

100.0%	maximum	1.0000
99.5%		1.0000
97.5%		1.0000
90.0%		0.0000
75.0%	quartile	0.0000
50.0%	median	0.0000
25.0%	quartile	0.0000
10.0%		0.0000
2.5%		0.0000
0.5%		0.0000
0.0%	minimum	0.0000
Mean		0.0588235
N		102

When looking at the middle-score ranges for Introductory Level 1 and 2 speakers and “incorrect word choice” one notices that scores in the quartiles ranged from 1-0 and 0-0, respectively. The mean for Introductory Level 1 speakers was 0.5392 and 0.2254 for Introductory Level 2 speakers.

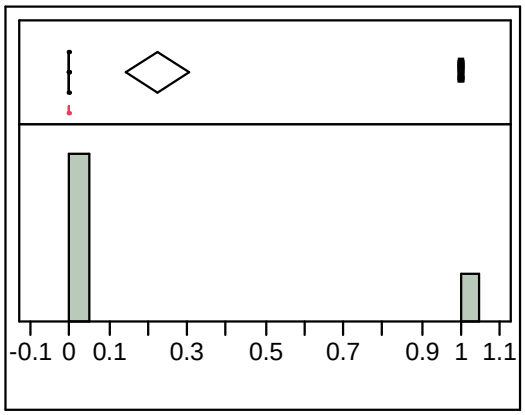
Distributions Speaker Level 1 - intro incorrect word choice



Quantiles

100.0%	maximum	1.0000
99.5%		1.0000
97.5%		1.0000
90.0%		1.0000
75.0%	quartile	1.0000
50.0%	median	1.0000
25.0%	quartile	0.0000
10.0%		0.0000
2.5%		0.0000
0.5%		0.0000
0.0%	minimum	0.0000
Mean		0.5392157
N		102

Distributions Speaker Level 2 - intro incorrect word choice

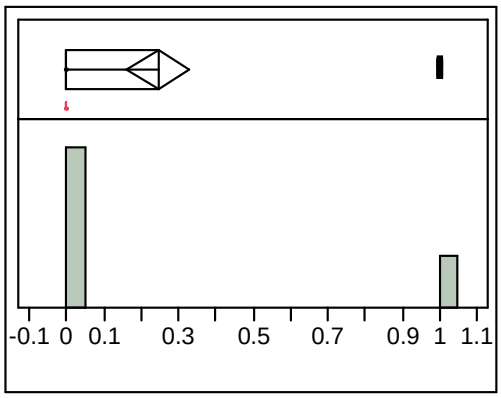


Quantiles

100.0%	maximum	1.0000
99.5%		1.0000
97.5%		1.0000
90.0%		1.0000
75.0%	quartile	0.0000
50.0%	median	0.0000
25.0%	quartile	0.0000
10.0%		0.0000
2.5%		0.0000
0.5%		0.0000
0.0%	minimum	0.0000
Mean		0.2254902
N		102

The data distribution for Advanced Level 3 speakers and “incorrect word choice” had a middle-score range of 0.25-0 with a mean of 0.2450, while scores in the middle quartile for Advanced Level 4 speakers ranged from 0-0 with a mean of 0.1372.

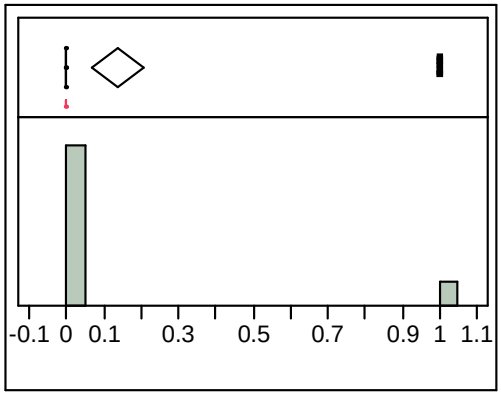
Distributions Speaker Level 3 - advanced incorrect word choice



Quantiles

100.0%	maximum	1.0000
99.5%		1.0000
97.5%		1.0000
90.0%		1.0000
75.0%	quartile	0.2500
50.0%	median	0.0000
25.0%	quartile	0.0000
10.0%		0.0000
2.5%		0.0000
0.5%		0.0000
0.0%	minimum	0.0000
Mean		0.245098
N		102

Distributions Speaker Level 4 - advanced incorrect word choice

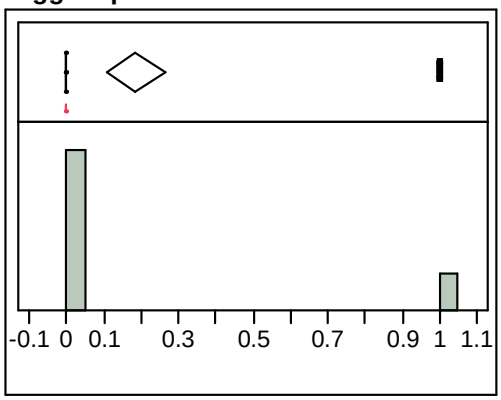


Quantiles

100.0%	maximum	1.0000
99.5%		1.0000
97.5%		1.0000
90.0%		1.0000
75.0%	quartile	0.0000
50.0%	median	0.0000
25.0%	quartile	0.0000
10.0%		0.0000
2.5%		0.0000
0.5%		0.0000
0.0%	minimum	0.0000
Mean		0.1372549
N		102

The middle quartiles for Introductory Level 1 and 2 speakers and “too little lexicon” range from 0-0. Introductory Level 1 speakers had a mean of 0.1862, while the mean of Introductory Level 2 speakers was 0.0588.

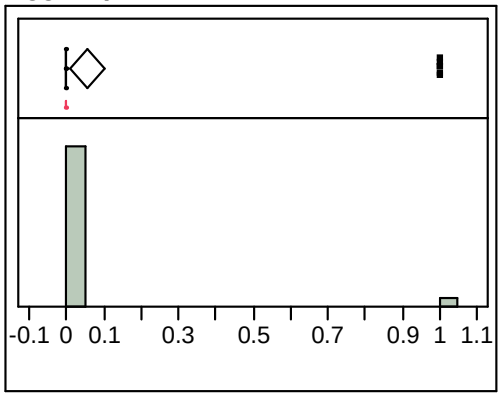
Distributions Speaker Level 1 - intro biggest problem = too little lexicon



Quantiles

100.0%	maximum	1.0000
99.5%		1.0000
97.5%		1.0000
90.0%		1.0000
75.0%	quartile	0.0000
50.0%	median	0.0000
25.0%	quartile	0.0000
10.0%		0.0000
2.5%		0.0000
0.5%		0.0000
0.0%	minimum	0.0000
Mean		0.1862745
N		102

Distributions Speaker Level 2 - intro
biggest problem = too little lexicon

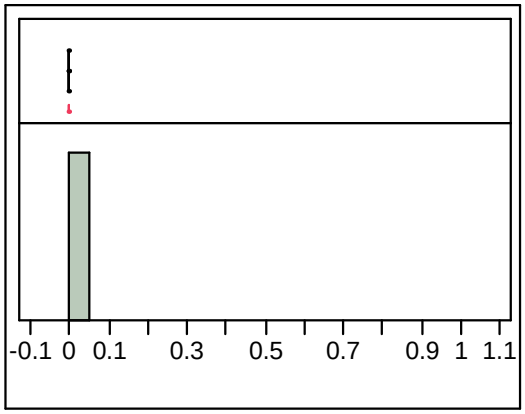


Quantiles

100.0%	maximum	1.0000
99.5%		1.0000
97.5%		1.0000
90.0%		0.0000
75.0%	quartile	0.0000
50.0%	median	0.0000
25.0%	quartile	0.0000
10.0%		0.0000
2.5%		0.0000
0.5%		0.0000
0.0%	minimum	0.0000

The number of errors made by Advanced Level 3 and 4 speakers with “too little lexicon” was 0.

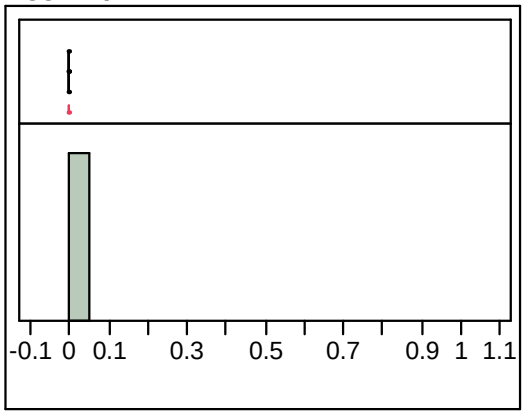
Distributions Speaker Level 3 - advanced
biggest problem = too little lexicon



Quantiles

100.0%	maximum	0
99.5%		0
97.5%		0
90.0%		0
75.0%	quartile	0
50.0%	median	0
25.0%	quartile	0
10.0%		0
2.5%		0
0.5%		0
0.0%	minimum	0
Mean		0
N		102

Distributions Speaker Level 4 - advanced
biggest problem = too little lexicon

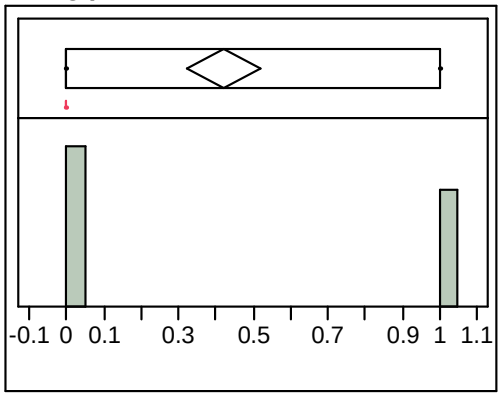


Quantiles

100.0%	maximum	0
99.5%		0
97.5%		0
90.0%		0
75.0%	quartile	0
50.0%	median	0
25.0%	quartile	0
10.0%		0
2.5%		0
0.5%		0
0.0%	minimum	0
Mean		0
N		102

The data distribution for Introductory Level 1 and 2 speakers and "wrong pronunciation" show that the middle-range quartile scores for these groups fell between 1-0. Introductory Level 1 speakers had a mean score of 0.4215, while the mean score for Introductory Level 2 speakers was 0.3333.

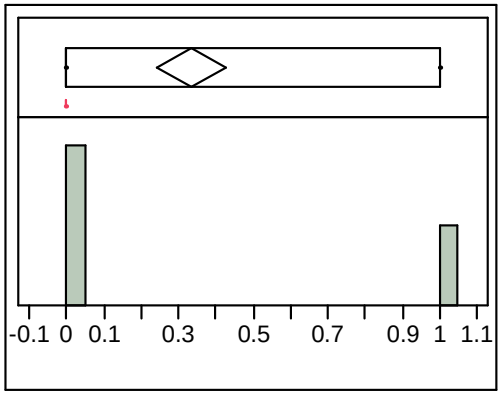
Distributions Speaker Level 1 - intro
wrong pronunciation



Quantiles

100.0%	maximum	1.0000
99.5%		1.0000
97.5%		1.0000
90.0%		1.0000
75.0%	quartile	1.0000
50.0%	median	0.0000
25.0%	quartile	0.0000
10.0%		0.0000
2.5%		0.0000
0.5%		0.0000
0.0%	minimum	0.0000
Mean		0.4215686
N		102

Distributions Speaker Level 2 - intro wrong pronunciation

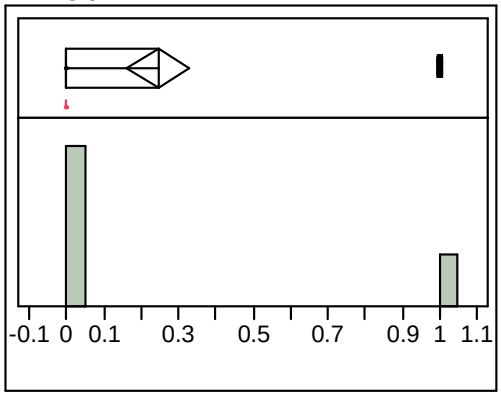


Quantiles

100.0%	maximum	1.0000
99.5%		1.0000
97.5%		1.0000
90.0%		1.0000
75.0%	quartile	1.0000
50.0%	median	0.0000
25.0%	quartile	0.0000
10.0%		0.0000
2.5%		0.0000
0.5%		0.0000
0.0%	minimum	0.0000
Mean		0.3333333
N		102

The middle-range scores for Advanced Level 3 and 4 speakers were slightly different, with the former having scored between 0.25-0 and receiving a mean of 0.2450, while the latter scored between 0-0 and received a mean of 0.1764.

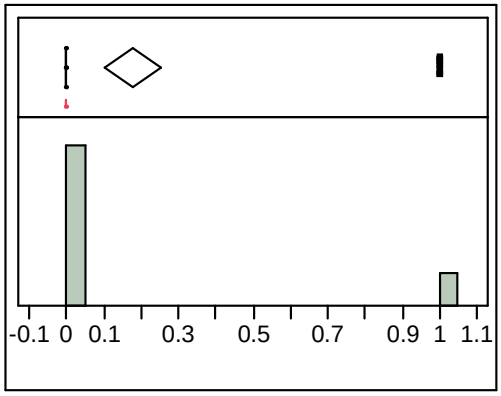
Distributions Speaker Level 3 - advanced wrong pronunciation



Quantiles

100.0%	maximum	1.0000
99.5%		1.0000
97.5%		1.0000
90.0%		1.0000
75.0%	quartile	0.2500
50.0%	median	0.0000
25.0%	quartile	0.0000
10.0%		0.0000
2.5%		0.0000
0.5%		0.0000
0.0%	minimum	0.0000
Mean		0.245098
N		102

Distributions Speaker Level=4 - advanced wrong pronunciation



Quantiles

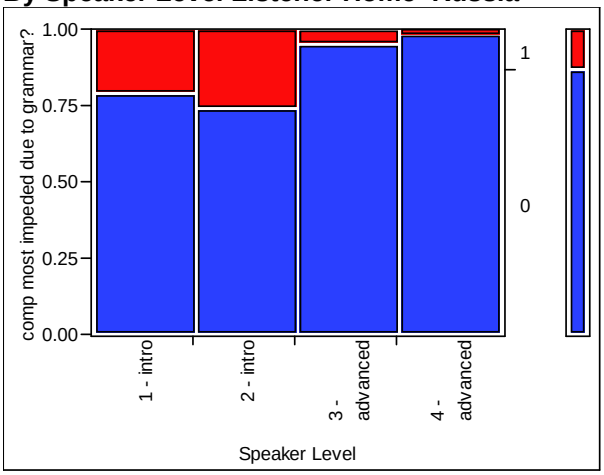
100.0%	maximum	1.0000
99.5%		1.0000
97.5%		1.0000
90.0%		1.0000
75.0%	quartile	0.0000
50.0%	median	0.0000
25.0%	quartile	0.0000
10.0%		0.0000
2.5%		0.0000
0.5%		0.0000
0.0%	minimum	0.0000
Mean		0.1764706
N		102

3.2.2 – Mosaic Plots

In the following section of statistical analysis I use mosaic plots to illustrate how many times the native-speaking Russian listeners from each of the four groups judged elements of the L-2 speech as incomprehensible with a score of "1." I begin by analyzing scores given by Russians from Russia and the US to L-2 speakers whose grammar errors impeded comprehension.

Russians in Russia determined that Introductory Level 1 speakers made 13 grammar errors that impeded comprehension, while Introductory Level 2 speakers made 16, Advanced Level 3 speakers made 3, and Advanced Level 4 speakers made 1. L-1 listeners recorded a total of 33 errors in this category.

By Speaker Level Listener Home=Russia

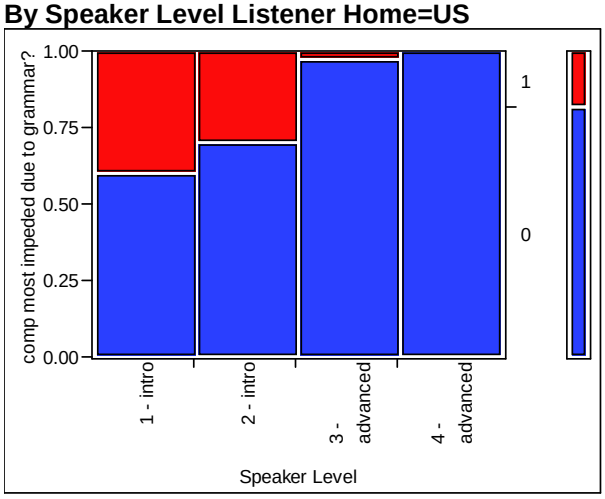


Comp most impeded due to grammar

Count Total % Col % Row %	0	1	
1 - intro	49 19.76 22.79 79.03	13 5.24 39.39 20.97	62 25.00
2 - intro	46 18.55 21.40 74.19	16 6.45 48.48 25.81	62 25.00
3 - advanced	59 23.79 27.44 95.16	3 1.21 9.09 4.84	62 25.00
4 - advanced	61 24.60 28.37 98.39	1 0.40 3.03 1.61	62 25.00
	215 86.69	33 13.31	248

Russians in the US thought that grammar errors made by Introductory Level 1 speakers hampered comprehension more than their Russian counterparts in Russia did. In particular, Russians in the US determined that the grammatical errors of novice-level speakers hindered comprehension a total of 16 times, while this number was 12 for Introductory Level 2 speakers, 1 time for Advanced Level 3 speakers and 0 times for Advanced Level 4 speakers. Thus, these listeners recorded grammatical errors a total of 29 times.

Comprehension most impeded due to grammar
By Speaker Level Listener Home=US



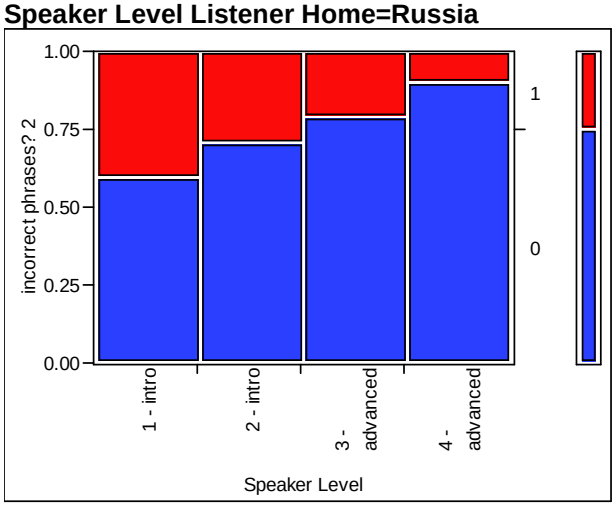
Comp most impeded due to grammar

Count Total % Col % Row %	0	1	
1 - intro	24 15.00 18.32 60.00	16 10.00 55.17 40.00	40 25.00
2 - intro	28 17.50 21.37 70.00	12 7.50 41.38 30.00	40 25.00
3 - advanced	39 24.38 29.77 97.50	1 0.63 3.45 2.50	40 25.00
4 - advanced	40 25.00 30.53 100.00	0 0.00 0.00 0.00	40 25.00
	131 81.88	29 18.13	160

The scores given by Russians in Russia for the number of times that incorrect phrases obstructed comprehension were much higher than those noted by Russians in the US. According to Russians in Russia, Introductory Level 1 speakers committed a total of 25 errors that led to incomprehension, Introductory Level 2 speakers made 18 such errors, Advanced Level 3 speakers committed a total of 13 incorrect phrasal errors that hindered comprehension, and Advanced Level 4 speakers made such errors 6 times.

Thus, the total number of times that Russians in Russia recorded incomprehensible phrasal errors made by speakers of all levels was 62.

Incorrect phrases
Speaker Level Listener Home=Russia

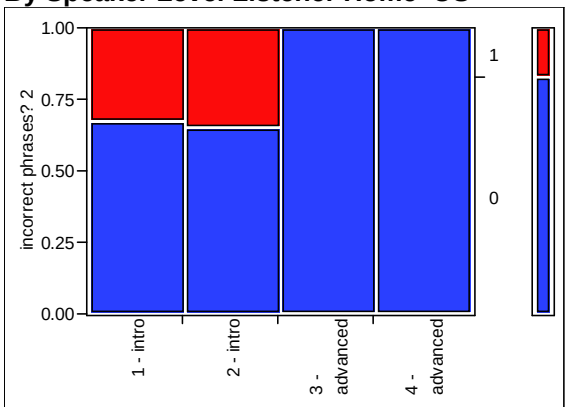


Incorrect phrases

Count Total % Col % Row %	0	1	
1 - intro	37 14.92 19.89 59.68	25 10.08 40.32 40.32	62 25.00
2 - intro	44 17.74 23.66 70.97	18 7.26 29.03 29.03	62 25.00
3 - advanced	49 19.76 26.34 79.03	13 5.24 20.97 20.97	62 25.00
4 - advanced	56 22.58 30.11 90.32	6 2.42 9.68 9.68	62 25.00
	186 75.00	62 25.00	248

Russians in the US, on the other hand, heard many fewer instances of errors made by American speakers that impeded their comprehension of phrases. Listeners recorded 13 incorrect phrasal errors made by Introductory Level 1 speakers, 14 made by Introductory Level 2 speakers, and 0 made by both Advanced Level 3 and 4 speakers. Thus, the total number of times that non-native speech was incomprehensible due to incorrect phrases was 27.

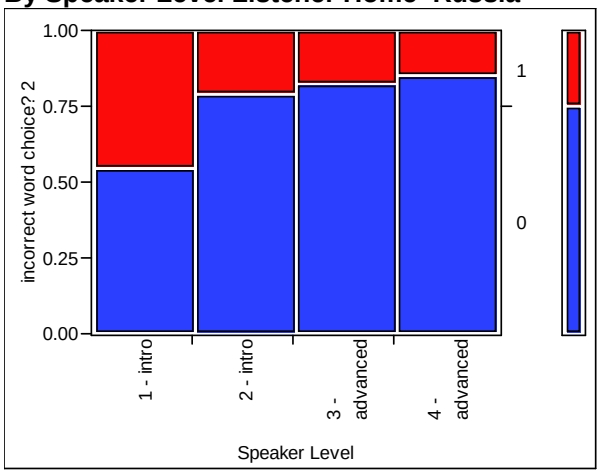
Incorrect phrases
By Speaker Level Listener Home=US



Incorrect phrases

Count Total % Col % Row %	0	1	
1 - intro	27 16.88 20.30 67.50	13 8.13 48.15 32.50	40 25.00
2 - intro	26 16.25 19.55 65.00	14 8.75 51.85 35.00	40 25.00
3 - advanced	40 25.00 30.08 100.00	0 0.00 0.00 0.00	40 25.00
4 - advanced	40 25.00 30.08 100.00	0 0.00 0.00 0.00	40 25.00
	133 83.13	27 16.88	160

Russians in Russia heard more instances of incorrect word choice impeding comprehension than did their counterparts in the US. Specifically, Russians in Russia noted 28 instances when incorrect word choice by Introductory Level 1 speakers impeded comprehension, 13 times by Introductory Level 2 speakers, 11 by Advanced Level 3 speakers and 9 by Advanced Level 4 speakers. The total number of times that incorrect word choice errors resulted in incomprehension was 61.

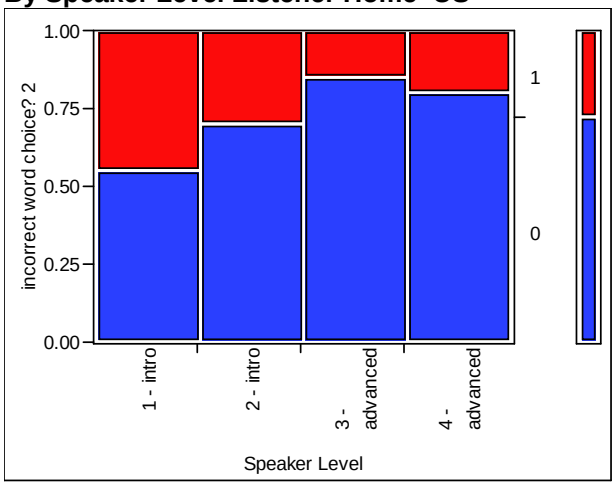


Incorrect word choice

Count Total % Col % Row %	0	1	
1 - intro	34 13.71 18.18 54.84	28 11.29 45.90 45.16	62 25.00
2 - intro	49 19.76 26.20 79.03	13 5.24 21.31 20.97	62 25.00
3 - advanced	51 20.56 27.27 82.26	11 4.44 18.03 17.74	62 25.00
4 - advanced	53 21.37 28.34 85.48	9 3.63 14.75 14.52	62 25.00
	187 75.40	61 24.60	248

Russians in the US heard Introductory Level 1 speakers make 18 errors in incorrect word choice that resulted in incomprehension, while Introductory Level 2 speakers made such errors 12 times. Advanced Level 3 speakers made such errors 6 times, while listeners judged Advanced Level 4 speakers as having made 8 word choice errors that led to incomprehension. Russians in the US heard speakers of all levels make such errors a total of 44 times.

Incorrect word choice
By Speaker Level Listener Home=US

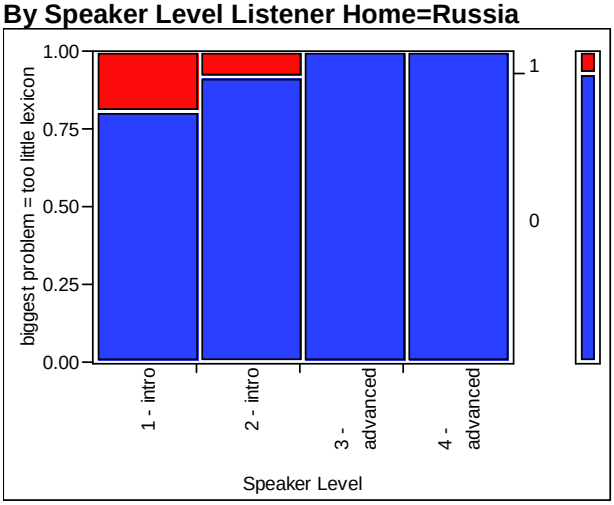


Incorrect word choice

Count Total % Col % Row %	0	1	
1 - intro	22 13.75 18.97 55.00	18 11.25 40.91 45.00	40 25.00
2 - intro	28 17.50 24.14 70.00	12 7.50 27.27 30.00	40 25.00
3 - advanced	34 21.25 29.31 85.00	6 3.75 13.64 15.00	40 25.00
4 - advanced	32 20.00 27.59 80.00	8 5.00 18.18 20.00	40 25.00
	116 72.50	44 27.50	160

Russians in Russia and in the US gave almost equal ratings for the number of times that too little L-2 lexicon led to incomprehensibility; however, Russians in Russia experienced slightly greater incomprehension than did their counterparts. Among Introductory Level 1 speakers listeners noted 12 instances when errors hampered comprehensibility, 5 such instances among Introductory Level 2 speakers and 0 for both Advanced Level 3 and 4 speakers, which led to a total of 17 total lexicon errors.

Too little lexicon
By Speaker Level Listener Home=Russia

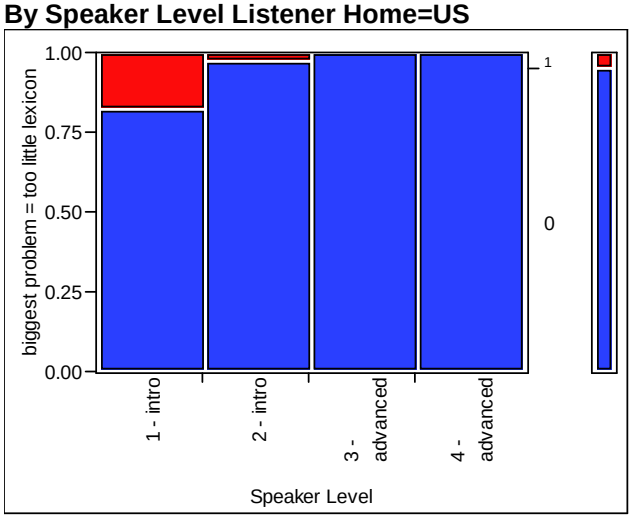


Too little lexicon

Count Total % Col % Row %	0	1	
1 - intro	50 20.16 21.65 80.65	12 4.84 70.59 19.35	62 25.00
2 - intro	57 22.98 24.68 91.94	5 2.02 29.41 8.06	62 25.00
3 - advanced	62 25.00 26.84 100.00	0 0.00 0.00 0.00	62 25.00
4 - advanced	62 25.00 26.84 100.00	0 0.00 0.00 0.00	62 25.00
	231 93.15	17 6.85	248

Russians in the US heard 7 errors when a lack of lexicon by Introductory Level 1 speakers impeded comprehension, 1 error among Introductory Level 2 speakers and no such errors among Advanced Level 3 or 4 speakers. Thus, Russians in the US judged non-native speech as incomprehensible due to too little lexicon a total of 8 times.

Too little lexicon
By Speaker Level Listener Home=US

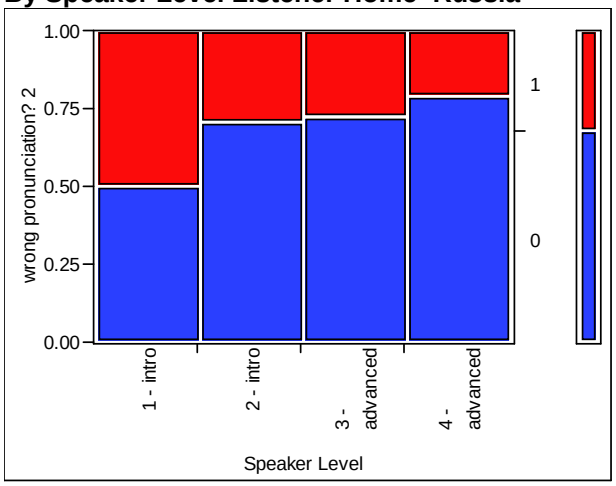


Too little lexicon

Count Total % Col % Row %	0	1	
1 - intro	33 20.63 21.71 82.50	7 4.38 87.50 17.50	40 25.00
2 - intro	39 24.38 25.66 97.50	1 0.63 12.50 2.50	40 25.00
3 - advanced	40 25.00 26.32 100.00	0 0.00 0.00 0.00	40 25.00
4 - advanced	40 25.00 26.32 100.00	0 0.00 0.00 0.00	40 25.00
	152 95.00	8 5.00	160

Russians in Russia recorded 31 instances when the pronunciation of Introductory Level 1 speakers hindered comprehension. 18 such instances were noted among Introductory Level 2 speakers, 17 among Advanced Level 3 speakers and 13 among Advanced Level 4 speakers. As a result, the message presented by the L-2 speakers was unclear due to incorrect pronunciation 79 times.

Wrong pronunciation
By Speaker Level Listener Home=Russia

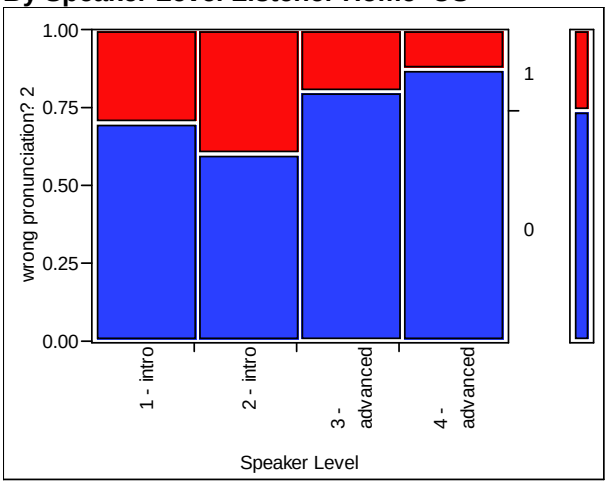


Wrong pronunciation

Count Total % Col % Row %	0	1	
1 - intro	31 12.50 18.34 50.00	31 12.50 39.24 50.00	62 25.00
2 - intro	44 17.74 26.04 70.97	18 7.26 22.78 29.03	62 25.00
3 - advanced	45 18.15 26.63 72.58	17 6.85 21.52 27.42	62 25.00
4 - advanced	49 19.76 28.99 79.03	13 5.24 16.46 20.97	62 25.00
	169 68.15	79 31.85	248

Russians in the US recorded fewer instances of incomprehension due to incorrect L-2 pronunciation than did their counterparts. For instance, listeners heard 12 pronunciation errors made by Introductory Level 1 speakers that resulted in incomprehension, 16 by Introductory Level 2 speakers, 8 by Advanced Level 3 speakers and 5 by Advanced Level 4 speakers. Thus, Russians in the US heard 41 instances when pronunciation errors made by speakers of all levels hampered L-1 comprehension.

Wrong pronunciation
By Speaker Level Listener Home=US



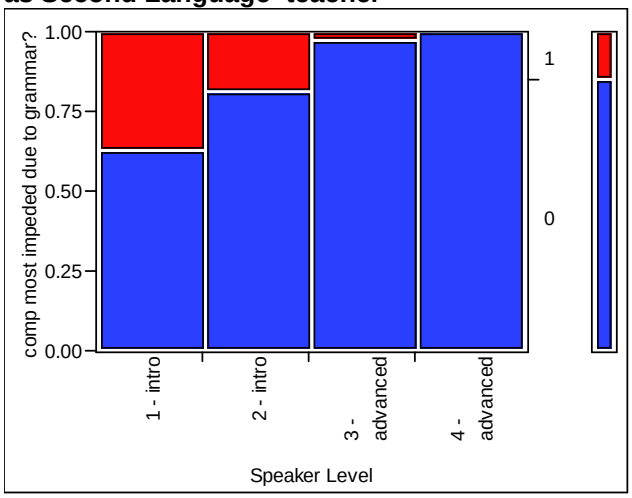
Wrong pronunciation

Count Total % Col % Row %	0	1	
1 - intro	28 17.50 23.53 70.00	12 7.50 29.27 30.00	40 25.00
2 - intro	24 15.00 20.17 60.00	16 10.00 39.02 40.00	40 25.00
3 - advanced	32 20.00 26.89 80.00	8 5.00 19.51 20.00	40 25.00
4 - advanced	35 21.88 29.41 87.50	5 3.13 12.20 12.50	40 25.00
	119 74.38	41 25.63	160

I now analyze the scores given by teachers and non-teachers of Russian as a Second Language to speakers of all levels for the five error types.

Higher error scores were given by non-teachers than teachers for cases of incomprehensible L-2 speech due to grammar. Teachers of Russian noted 14 instances when Introductory Level 1 speech was incomprehensible due to incorrect grammar, 7 among Introductory Level 2 speakers, 1 among Advanced Level 3 speakers and 0 among Advanced Level 4 speakers. L-2 speech was impeded due to grammar errors a total of 22 times.

Comprehension most impeded due to grammar
Teacher/non-teacher of Russian
as Second Language=teacher



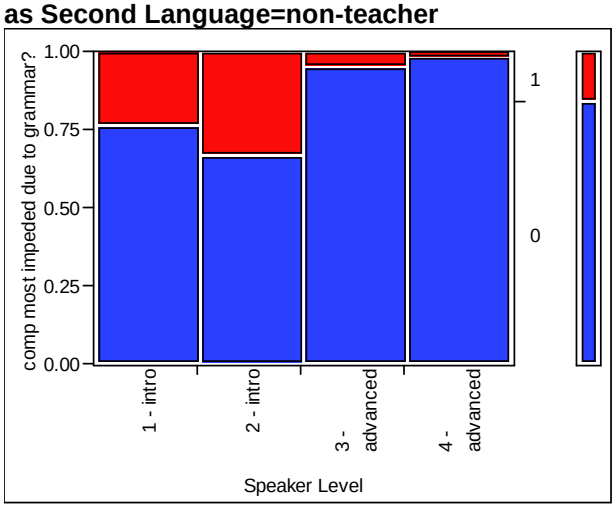
Comp most impeded due to grammar

Count Total % Col % Row %	0	1	
1 - intro	24 15.79 18.46 63.16	14 9.21 63.64 36.84	38 25.00
2 - intro	31 20.39 23.85 81.58	7 4.61 31.82 18.42	38 25.00
3 - advanced	37 24.34 28.46 97.37	1 0.66 4.55 2.63	38 25.00
4 - advanced	38 25.00 29.23 100.00	0 0.00 0.00 0.00	38 25.00
	130 85.53	22 14.47	152

Non-teachers, however, noted more instances when comprehension was impeded due to grammar errors made by speakers of all levels. Introductory Level 1 speakers, for example, made 15 grammar errors that negatively affected listener comprehension, while Introductory Level speakers made such errors 21 times. The error ratings of Advanced Level 3 and 4 speakers were also higher, according to non-teachers, who heard 3 instances of incorrect Advanced Level 3 grammar errors resulting in incomprehensibility,

and 1 such instance among Advanced Level 4 speakers. As a result, non-teachers of Russian noted 40 instances when the L-2 message was unclear due to grammar errors.

Comprehension most impeded due to grammar
Teacher/non-teacher of Russian
as Second Language=non-teacher

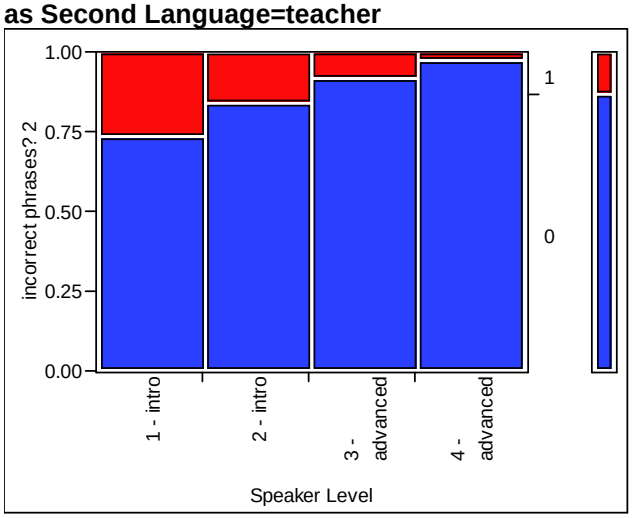


Comp most impeded due to grammar

Count Total % Col % Row %	0	1	
1 - intro	49 19.14 22.69 76.56	15 5.86 37.50 23.44	64 25.00
2 - intro	43 16.80 19.91 67.19	21 8.20 52.50 32.81	64 25.00
3 - advanced	61 23.83 28.24 95.31	3 1.17 7.50 4.69	64 25.00
4 - advanced	63 24.61 29.17 98.44	1 0.39 2.50 1.56	64 25.00
	216 84.38	40 15.63	256

Teachers of Russian had much less difficulty understanding Americans who used incorrect phrases when speaking than did non-teachers. Teachers heard only 10 instances of incorrect phrasal errors made by Introductory Level 1 speakers that caused incomprehension, 6 such errors were made by Introductory Level 2 speakers, 3 by Advanced Level 3 speakers and 1 by Advanced Level 4 speakers. Thus, 20 errors made by the L-2 speakers led to native-speaker incomprehension.

Incorrect phrases
By Speaker Level teacher/non-teacher of Russian as Second Language=teacher

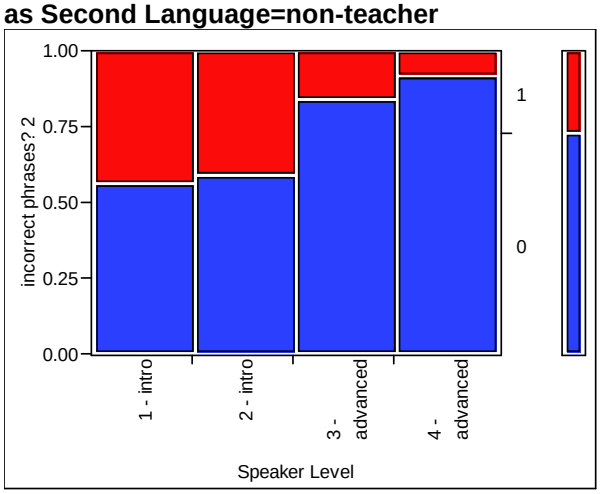


Incorrect phrases

Count Total % Col % Row %	0	1	
1 - intro	28 18.42 21.21 73.68	10 6.58 50.00 26.32	38 2 5.00
2 - intro	32 21.05 24.24 84.21	6 3.95 30.00 15.79	38 25.00
3 - advanced	35 23.03 26.52 92.11	3 1.97 15.00 7.89	38 25.00
4 - advanced	37 24.34 28.03 97.37	1 0.66 5.00 2.63	38 25.00
	132 86.84	20 13.16	152

Non-teachers noted 28 instances when Introductory Level 1 speech was incomprehensible, 26 such instances were recorded among Introductory Level 2 speakers, 10 among Advanced Level 3 speakers and 5 among Advanced Level 4 speakers. As a result, L-2 speech was incomprehensible to non-teachers 69 times.

Incorrect phrases 2
By Speaker Level teacher/non-teacher of Russian as Second Language=non-teacher

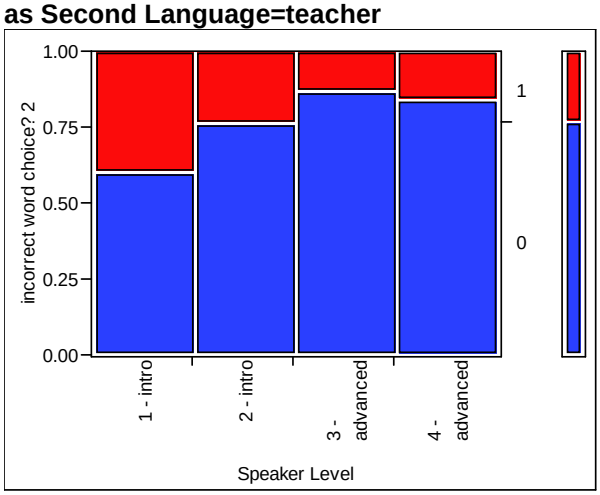


Incorrect phrases

Count Total % Col % Row %	0	1	
1 - intro	36 14.06 19.25 56.25	28 10.94 40.58 43.75	64 25.00
2 - intro	38 14.84 20.32 59.38	26 10.16 37.68 40.63	64 25.00
3 - advanced	54 21.09 28.88 84.38	10 3.91 14.49 15.63	64 25.00
4 - advanced	59 23.05 31.55 92.19	5 1.95 7.25 7.81	64 25.00
	187 73.05	69 26.95	256

Teachers of Russian had less difficulty comprehending L-2 due to incorrect word order than did non-teachers. Teachers heard 15 instances when Introductory Level 1 word choice errors hampered comprehension, 9 among Introductory Level 2 speakers, 5 among Advanced Level 3 speakers and 6 among Advanced Level 4 speakers. Word choice errors made by L-2 speakers resulted in incomprehension for teachers of Russian 35 times.

Incorrect word choice
By Speaker Level teacher/non-teacher of Russian as Second Language=teacher

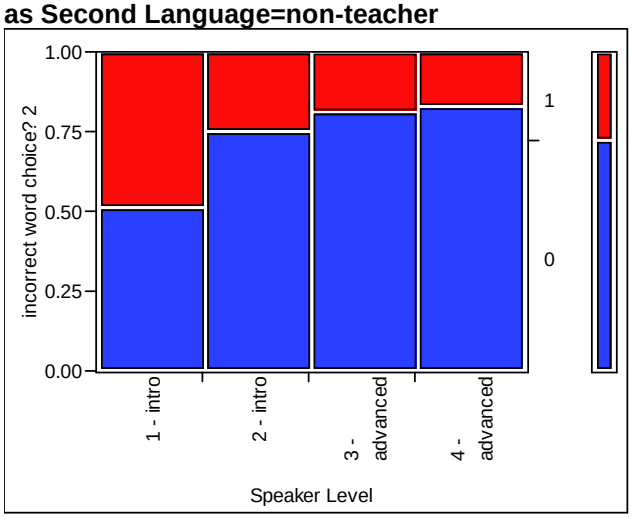


Incorrect word choice

Count Total % Col % Row %	0	1	
1 - intro	23 15.13 19.66 60.53	15 9.87 42.86 39.47	38 25.00
2 - intro	29 19.08 24.79 76.32	9 5.92 25.71 23.68	38 25.00
3 - advanced	33 21.71 28.21 86.84	5 3.29 14.29 13.16	38 25.00
4 - advanced	32 21.05 27.35 84.21	6 3.95 17.14 15.79	38 25.00
	117 76.97	35 23.03	152

Alternatively, word choice errors made L-2 speech twice as difficult for non-teachers to understand as for teachers. Specifically, non-teachers rated Introductory Level 1 learners as incomprehensible 31 times, Introductory Level 2 speakers received this rating 16 times, Advanced Level 3 speakers were incomprehensible 12 times, while L-1 listener comprehension of Advanced Level 4 speakers was hampered 11 times. Thus, non-teachers rated the speech of L-2 learners incomprehensible 70 times due to incorrect word choice.

Incorrect word choice
By Speaker Level teacher/non-teacher of Russian as Second Language=non-teacher

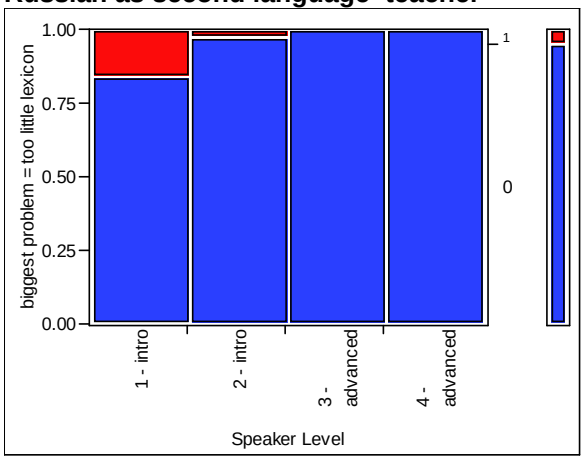


Incorrect word choice

Count Total % Col % Row %	0	1	
1 - intro	33 12.89 17.74 51.56	31 12.11 44.29 48.44	64 25.00
2 - intro	48 18.75 25.81 75.00	16 6.25 22.86 25.00	64 25.00
3 - advanced	52 20.31 27.96 81.25	12 4.69 17.14 18.75	64 25.00
4 - advanced	53 20.70 28.49 82.81	11 4.30 15.71 17.19	64 25.00
	186 72.66	70 27.34	256

Although teachers and non-teachers did not judge lack of Russian lexicon by L-2 speakers as having severely hampered comprehension, both groups did note several instances when it rendered non-native speech incomprehensible. For example, lack of lexicon resulted in incomprehension of Introductory Level 1 speakers 6 times and of Introductory Level 2 speakers 1 time. Lack of lexicon was not rated as a problem among Advanced Level 3 or 4 speakers.

Too little lexicon
By Speaker Level teacher/non-teacher of Russian as second language=teacher

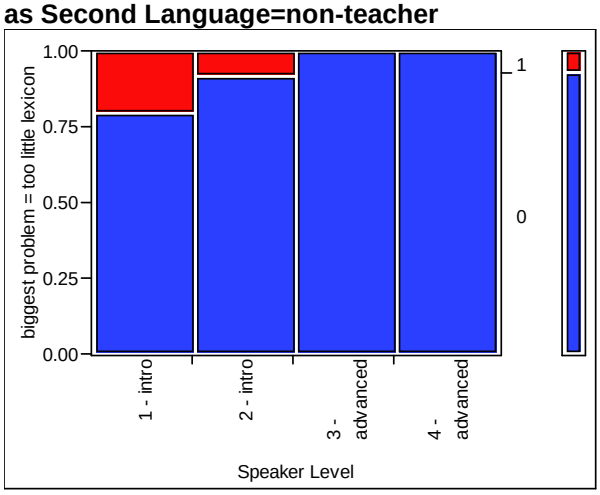


Too little lexicon

Count Total % Col % Row %	0	1	
1 - intro	32 21.05 22.07 84.21	6 3.95 85.71 15.79	38 25.00
2 - intro	37 24.34 25.52 97.37	1 0.66 14.29 2.63	38 25.00
3 - advanced	38 25.00 26.21 100.00	0 0.00 0.00 0.00	38 25.00
4 - advanced	38 25.00 26.21 100.00	0 0.00 0.00 0.00	38 25.00
	145 95.39	7 4.61	152

Although non-teachers also noted several instances when L-2 speech was incomprehensible due to lack of lexicon, such instances occurred only among introductory, but not advanced, speakers. In particular, Russian listeners could not understand Introductory Level 1 speakers 13 times and Introductory Level 2 speakers 5 times speakers. The total number of times when the meaning was unclear for non-teachers due to too little lexicon was 18.

Too little lexicon
By Speaker Level teacher/non-teacher of Russian as Second Language=non-teacher

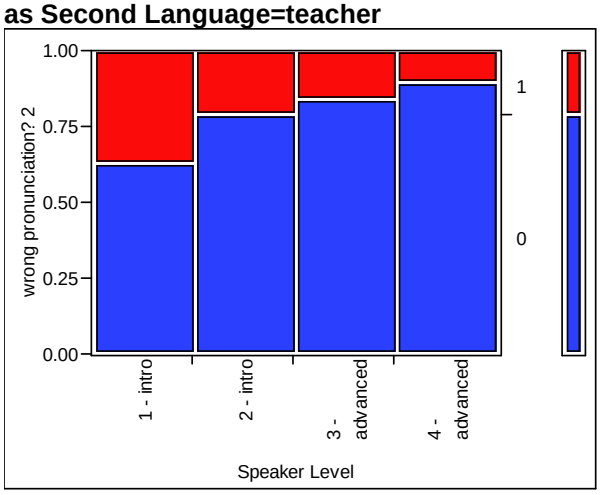


Too little lexicon

Count Total % Col % Row %	0	1	
1 - intro	51 19.92 21.43 79.69	13 5.08 72.22 20.31	64 25.00
2 - intro	59 23.05 24.79 92.19	5 1.95 27.78 7.81	64 25.00
3 - advanced	64 25.00 26.89 100.00	0 0.00 0.00 0.00	64 25.00
4 - advanced	64 25.00 26.89 100.00	0 0.00 0.00 0.00	64 25.00
	238 92.97	18 7.03	256

Just as teachers had less difficulty than non-teachers understanding L-2 errors in the previous four sections, so they were also able to comprehend pronunciation errors more easily than their non-teaching colleagues. Specifically, teachers noted 29 instances when Introductory Level 1 speech was incomprehensible due to pronunciation errors, 8 such instances were recorded among Introductory Level 2 speakers, 6 among Advanced Level 3 speakers and 4 among Advanced Level 4 speakers. In total, teachers noted 32 instances when pronunciation errors made non-native speech incomprehensible.

Wrong pronunciation
By Speaker Level teacher/non-teacher of Russian as Second Language=teacher

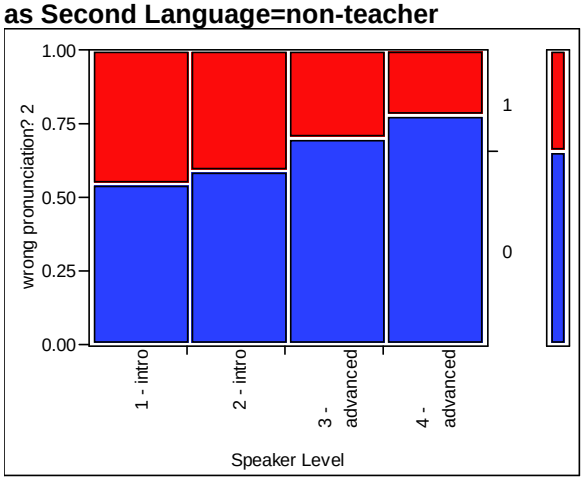


Wrong pronunciation

Count Total % Col % Row %	0	1	
1 - intro	24 15.79 20.00 63.16	14 9.21 43.75 36.84	38 25.00
2 - intro	30 19.74 25.00 78.95	8 5.26 25.00 21.05	38 25.00
3 - advanced	32 21.05 26.67 84.21	6 3.95 18.75 15.79	38 25.00
4 - advanced	34 22.37 28.33 89.47	4 2.63 12.50 10.53	38 25.00
	120 78.95	32 21.05	152

Non-teachers heard almost twice as many L-2 pronunciation errors that resulted in incomprehensibility of non-native speech. Listeners noted 29 cases among Introductory Level 1 speakers when meaning was unclear due to pronunciation, 26 cases among Introductory Level 2 speakers, 19 cases among Advanced Level 3 speakers and 14 among Advanced Level 4 speakers. Thus, L-2 pronunciation errors impeded non-teacher comprehension 88 times.

Wrong pronunciation
By Speaker Level teacher/non-teacher of Russian as Second Language=non-teacher



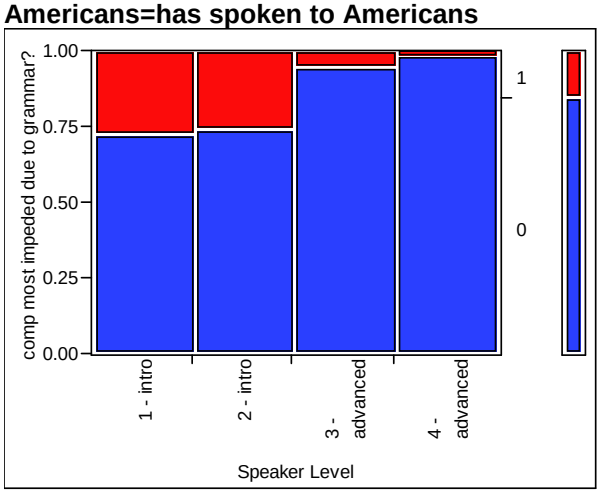
Wrong pronunciation

Count Total % Col % Row %	0	1	
1 - intro	35 13.67 20.83 54.69	29 11.33 32.95 45.31	64 25.00
2 - intro	38 14.84 22.62 59.38	26 10.16 29.55 40.63	64 25.00
3 - advanced	45 17.58 26.79 70.31	19 7.42 21.59 29.69	64 25.00
4 - advanced	50 19.53 29.76 78.13	14 5.47 15.91 21.88	64 25.00
	168 65.63	88 34.38	256

I now analyze the reactions of Russians who have and have not had prior contact with Americans and L-2 errors in the five categories.

Interestingly, Russians who have previously spoken with Americans had more difficulty understanding the speech of Americans who used incorrect grammar than did Russians who have not had such prior contact. By examining the scores given by Russians who have had prior contact with Americans, one notices there were 20 instances when Introductory Level 1 L-2 speech was unclear due to grammar errors, and 18 such cases when native Russian speakers did not understand Introductory Level 2 speech. Russian listeners recorded 4 instances when poor grammar rendered the speech of Advanced Level 3 speakers incomprehensible, and 1 such instance among Advanced Level 4 speakers. Thus, incorrect L-2 pronunciation impeded comprehension for native-speaker Russians who have had prior contact with Americans a total of 43 times.

Comp most impeded due to grammar
By Speaker Level has/has not spoken to Americans=has spoken to Americans

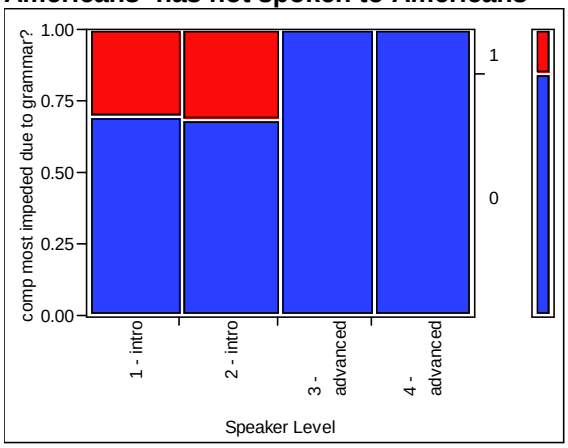


Comp most impeded due to grammar

Count Total % Col % Row %	0	1	
1 - intro	52 18.25 21.49 72.22	20 7.02 46.51 27.78	72 25.26
2 - intro	52 18.25 21.49 74.29	18 6.32 41.86 25.71	70 24.56
3 - advanced	68 23.86 28.10 94.44	4 1.40 9.30 5.56	72 25.26
4 - advanced	70 24.56 28.93 98.59	1 0.35 2.33 1.41	71 24.91
	242 84.91	43 15.09	285

Conversely, Russians who have not had prior contact with Americans had less difficulty comprehending L-2 speech with grammatical errors than their counterparts. These listeners rated the speech of Introductory Level 1 speakers as incomprehensible due to poor grammar 9 times, while Introductory Level 2 speakers were difficult to comprehend 10 times. However, no instances were heard among Advanced Level 3 and 4 speakers when grammatical errors obstructed comprehension. The total number of times that grammar errors hampered comprehension for Russian listeners who have not had prior contact with Americans was 19.

Comp most impeded due to grammar
By Speaker Level has/has not spoken to Americans=has not spoken to Americans

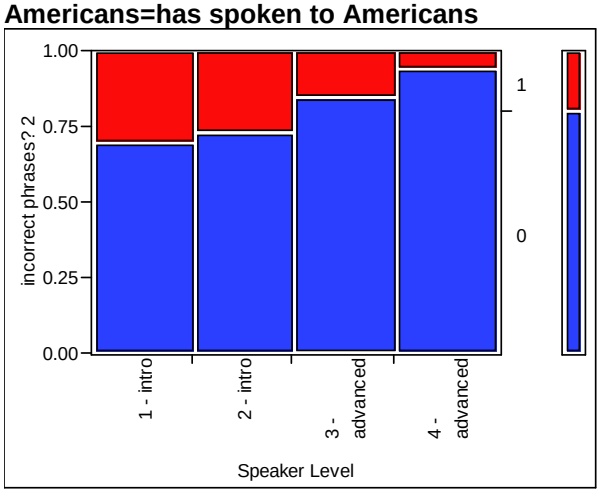


Comp most impeded due to grammar

Count Total % Col % Row %	0	1	
1 - intro	21 17.07 20.19 70.00	9 7.32 47.37 30.00	30 24.39
2 - intro	22 17.89 21.15 68.75	10 8.13 52.63 31.25	32 26.02
3 - advanced	30 24.39 28.85 100.00	0 0.00 0.00 0.00	30 24.39
4 - advanced	31 25.20 29.81 100.00	0 0.00 0.00 0.00	31 25.20
	104 84.55	19 15.45	123

When analyzing the number of instances that incorrectly formed L-2 phrases led to incomprehension one sees that Russians who have spoken previously with Americans had more difficulty comprehending speaker errors than their counterparts. Incorrectly formed phrases caused incomprehension of Introductory Level 1 speakers 22 times, 19 of Introductory Level 2 speakers, 11 of Advanced Level 3 speakers and 4 of Advanced Level 4 speakers. Thus, incorrectly structured phrases resulted in L-1 incomprehension of non-native speaker meaning 56 times.

Incorrect phrases
By Speaker Level has/has not spoken to Americans=has spoken to Americans

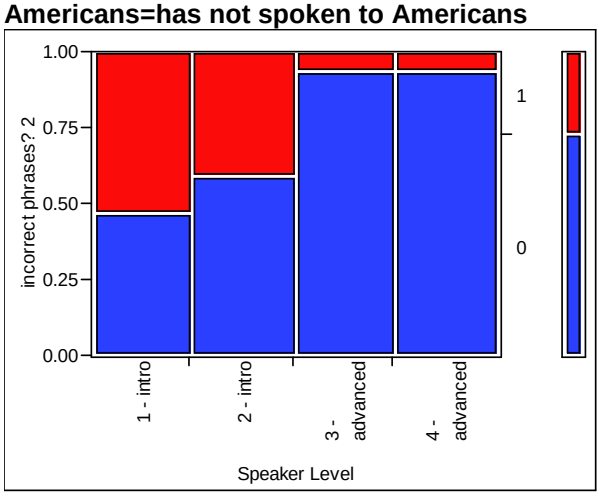


Incorrect phrases

Count Total % Col % Row %	0	1	
1 - intro	50 17.54 21.83 69.44	22 7.72 39.29 30.56	72 25.26
2 - intro	51 17.89 22.27 72.86	19 6.67 33.93 27.14	70 24.56
3 - advanced	61 21.40 26.64 84.72	11 3.86 19.64 15.28	72 25.26
4 - advanced	67 23.51 29.26 94.37	4 1.40 7.14 5.63	71 24.91
	229 80.35	56 19.65	285

Russians who have not had prior contact with Americans recorded 16 cases when Introductory Level 1 speech was incomprehensible due to incorrectly formed phrases, while such instances were noted 13 times among Introductory Level 2 speakers. Advanced Level 3 and 4 speaker meaning was unclear 2 times each. In total, listeners cited 33 instances when incorrect phrases resulted in incomprehension of speaker meaning.

Incorrect phrases
By Speaker Level has/has not spoken to Americans=has not spoken to Americans

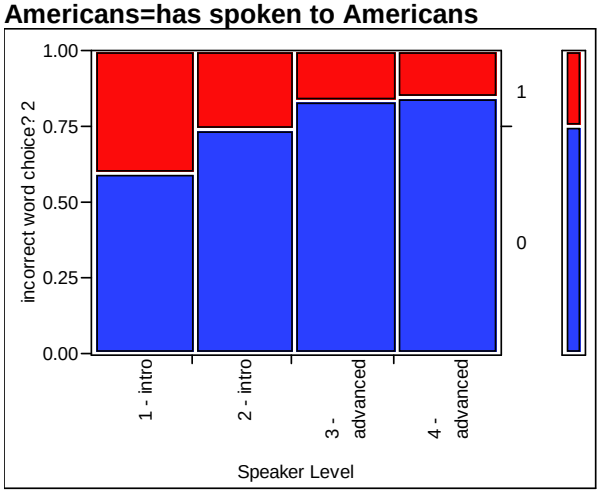


Incorrect phrases

Count Total % Col % Row %	0	1	
1 - intro	14 11.38 15.56 46.67	16 13.01 48.48 53.33	30 24.39
2 - intro	19 15.45 21.11 59.38	13 10.57 39.39 40.63	32 26.02
3 - advanced	28 22.76 31.11 93.33	2 1.63 6.06 6.67	30 24.39
4 - advanced	29 23.58 32.22 93.55	2 1.63 6.06 6.45	31 25.20
	90 73.17	33 26.83	123

The number of incorrect word choice errors that caused L-1 incomprehension of non-native speech for Russians who have had prior contact with Americans was almost twice as high as for their counterparts. The highest number of such errors was recorded among Introductory Level 1 speakers who listeners rated as “incomprehensible” 29 times. The same group of listeners heard 18 instances when incorrect word choice hampered comprehension of Introductory Level 2 speakers, 12 times of Advanced Level 3 speakers and 11 of Advanced Level 4 speakers. As a result, listeners recorded a total of 70 instances when L-2 speaker meaning was unclear due to incorrect word choice.

Incorrect word choice
By Speaker Level has/has not spoken to Americans=has spoken to Americans

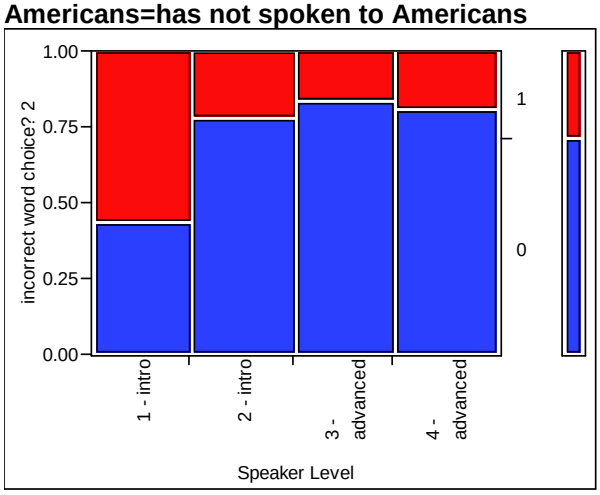


Incorrect word choice

	0	1	
Count Total % Col % Row %			
1 - intro	43 15.09 20.00 59.72	29 10.18 41.43 40.28	72 25.26
2 - intro	52 18.25 24.19 74.29	18 6.32 25.71 25.71	70 24.56
3 - advanced	60 21.05 27.91 83.33	12 4.21 17.14 16.67	72 25.26
4 - advanced	60 21.05 27.91 84.51	11 3.86 15.71 15.49	71 24.91
	215 75.44	70 24.56	285

Russians who have not had prior contact with Americans, however, had less difficulty than their counterparts understanding L-2 speech that contained word choice errors. In particular, these listeners rated Introductory Level 1 speech incomprehensible 17 times, Introductory Level 2 speech 7 times, Advanced Level 3 speech 5 times and Advanced Level 4 speech 6 times for a total of 35 such times that incorrect word choice led to L-1 listener incomprehension.

Incorrect word choice
By Speaker Level has/has not spoken to Americans=has not spoken to Americans

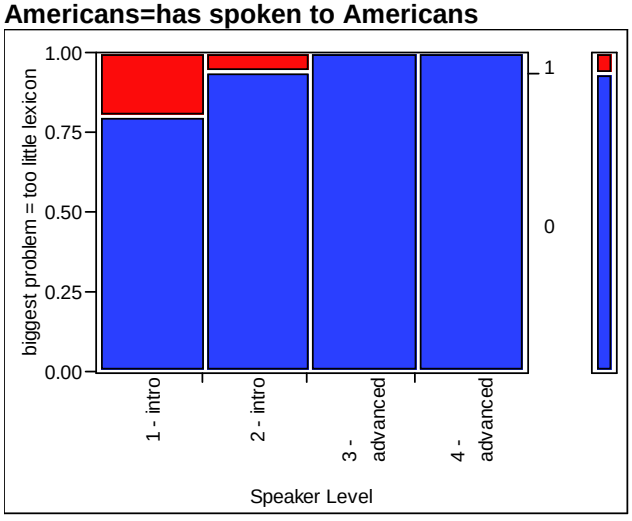


Incorrect word choice

Count Total % Col % Row %	0	1	
1 - intro	13 10.57 14.77 43.33	17 13.82 48.57 56.67	30 24.39
2 - intro	25 20.33 28.41 78.13	7 5.69 20.00 21.88	32 26.02
3 - advanced	25 20.33 28.41 83.33	5 4.07 14.29 16.67	30 24.39
4 - advanced	25 20.33 28.41 80.65	6 4.88 17.14 19.35	31 25.20
	88 71.54	35 28.46	123

The differences between L-2 speech comprehensibility due to too little lexicon among Russians who have and have not had prior contact with Americans were minimal. Russians who have previously spoken with Americans noted 14 instances when lack of lexicon hindered their comprehensibility of Introductory Level 1 speakers, 4 instances were heard among Introductory Level 2 speakers, but no such cases were recorded among Advanced Level 3 or 4 speakers. Native Russian-speaking listeners noted 18 total instances when lack of lexicon resulted in their inability to comprehend L-2 speech.

Too little lexicon
By Speaker Level has/has not spoken to Americans=has spoken to Americans

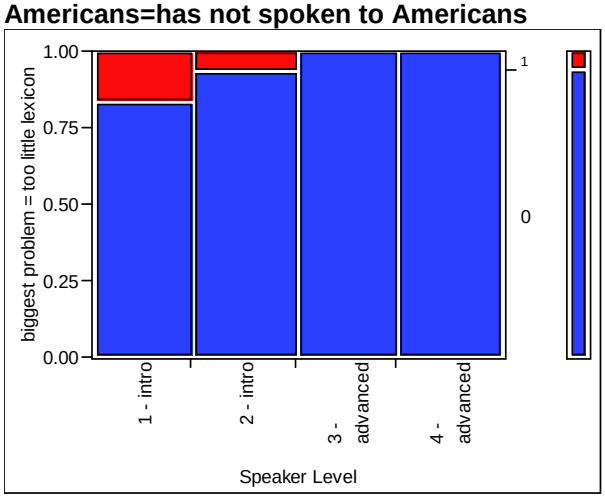


Too little lexicon

Count Total % Col % Row %	0	1	
1 - intro	58 20.35 21.72 80.56	14 4.91 77.78 19.44	72 25.26
2 - intro	66 23.16 24.72 94.29	4 1.40 22.22 5.71	70 24.56
3 - advanced	72 25.26 26.97 100.00	0 0.00 0.00 0.00	72 25.26
4 - advanced	71 24.91 26.59 100.00	0 0.00 0.00 0.00	71 24.91
	267 93.68	18 6.32	285

Although Russians who have not had prior contact with Americans noted exactly half as many instances when lack of L-2 lexicon resulted in incomprehensibility as did their counterparts, such instances were noted only among introductory-level speakers. The speech of Introductory Level 1 speakers, for example, was recorded as incomprehensible 5 times, while lack of lexicon impeded L-1 comprehension of Introductory Level 2 speakers twice. No such instances were heard among advanced-level speakers. Lack of lexicon thus resulted in L-1 incomprehension 7 times.

Too little lexicon
By Speaker Level has/has not spoken to Americans=has not spoken to Americans



Too little lexicon

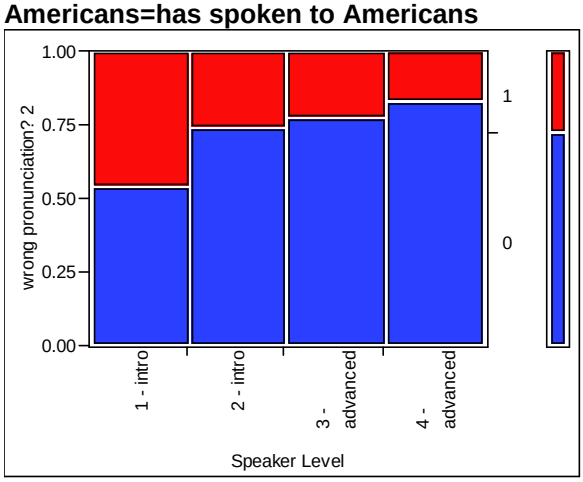
Count Total % Col % Row %	0	1	
1 - intro	25 20.33 21.55 83.33	5 4.07 71.43 16.67	30 24.39
2 - intro	30 24.39 25.86 93.75	2 1.63 28.57 6.25	32 26.02
3 - advanced	30 24.39 25.86 100.00	0 0.00 0.00 0.00	30 24.39
4 - advanced	31 25.20 26.72 100.00	0 0.00 0.00 0.00	31 25.20
	116 94.31	7 5.69	123

Incorrect pronunciation also caused greater incomprehension among Russians who have had prior contact with Americans than among their counterparts. Pronunciation errors made by Introductory Level 1 speakers led to L-1 listener incomprehension 33 times, while 18 errors made by Introductory Level 2 speakers received this rating. Among advanced-level speakers errors were fewer, although still prominent – in 16 instances errors by Advanced Level 3 speakers hindered L-1 comprehension, while 12 such cases occurred among Advanced Level 4 speakers. The

result was that L-2 pronunciation errors led to incomprehension for Russians who have had prior contact with Americans 79 times

Wrong pronunciation

By Speaker Level has/has not spoken to Americans=has spoken to Americans

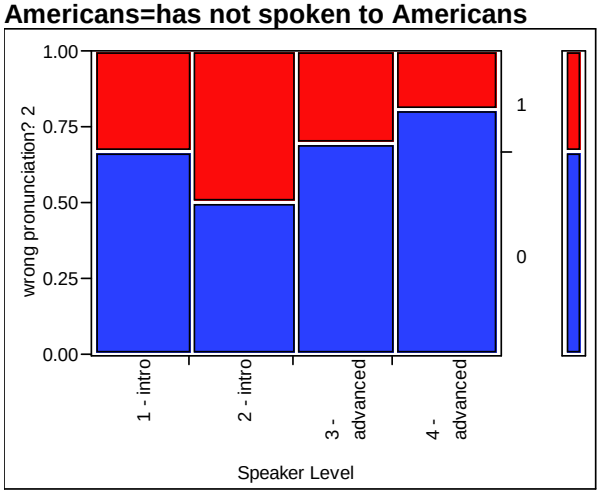


Wrong pronunciation

Count Total % Col % Row %	0	1	
1 - intro	39 13.68 18.93 54.17	33 11.58 41.77 45.83	72 25.26
2 - intro	52 18.25 25.24 74.29	18 6.32 22.78 25.71	70 24.56
3 - advanced	56 19.65 27.18 77.78	16 5.61 20.25 22.22	72 25.26
4 - advanced	59 20.70 28.64 83.10	12 4.21 15.19 16.90	71 24.91
	206 72.28	79 27.72	285

Russians who have not had prior contact with Americans recorded 10 instances when Introductory Level 1 speech was incomprehensible due to incorrect pronunciation, 16 such cases occurred among Introductory Level 2 speakers, 9 among Advanced Level 3 speakers and 4 among Advanced Level 4 speakers, thus resulting in L-2 pronunciation errors hindering comprehension 41 times.

Wrong pronunciation
By Speaker Level has/has not spoken to Americans=has not spoken to Americans



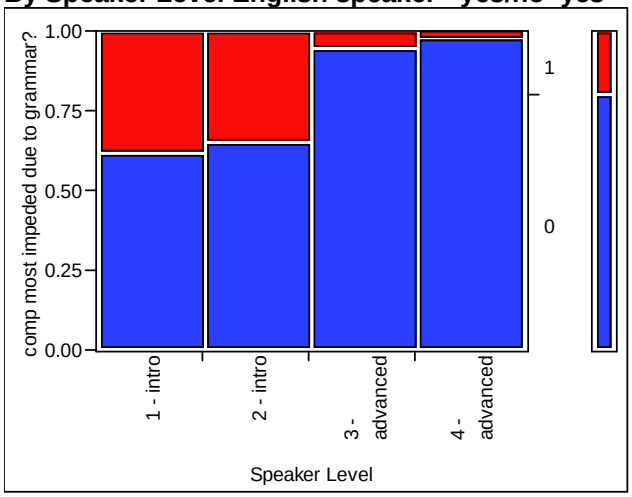
Wrong pronunciation

Count Total % Col % Row %	0	1	
1 - intro	20 16.26 24.39 66.67	10 8.13 24.39 33.33	30 24.39
2 - intro	16 13.01 19.51 50.00	16 13.01 39.02 50.00	32 26.02
3 - advanced	21 17.07 25.61 70.00	9 7.32 21.95 30.00	30 24.39
4 - advanced	25 20.33 30.49 80.65	6 4.88 14.63 19.35	31 25.20
	82 66.67	41 33.33	123

Finally, I examine the answers of English-speaking and non-English-speaking Russians. Surprisingly, each of the five errors researched impeded comprehension more for Russians who speak English than for those who do not.

Introductory Level 1 speech was deemed incomprehensible by Russians who speak English a total of 22 times, Introductory Level 2 speech received this rating 20 times, Advanced Level 3 speakers 3 times and Advanced Level 4 speakers once. Therefore, incorrect L-2 grammar hampered comprehension for Russians who speak English 46 times.

Comp most impeded due to grammar
By Speaker Level English speaker - yes/no=yes

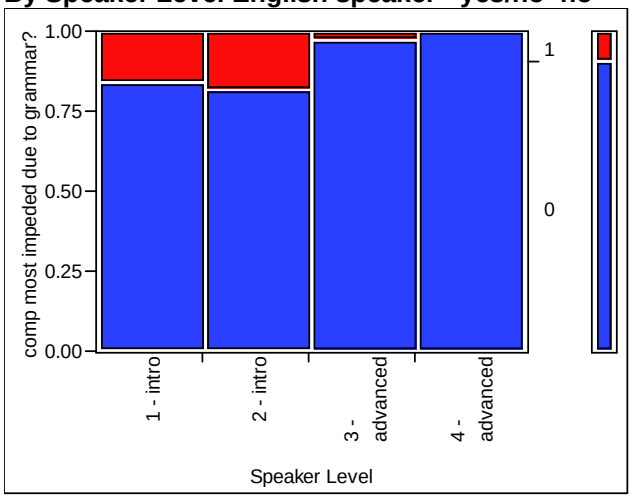


Comp most impeded due to grammar

Count Total % Col % Row %	0	1	
1 - intro	36 15.52 19.35 62.07	22 9.48 47.83 37.93	58 25.00
2 - intro	38 16.38 20.43 65.52	20 8.62 43.48 34.48	58 25.00
3 - advanced	55 23.71 29.57 94.83	3 1.29 6.52 5.17	58 25.00
4 - advanced	57 24.57 30.65 98.28	1 0.43 2.17 1.72	58 25.00
	186 80.17	46 19.83	232

Russians who do not speak English rated the speech of Introductory Level 1 speakers as incomprehensible due to grammar errors 7 times, such instances of incomprehensibility among Introductory Level 2 speakers occurred 8 times, and grammar errors made an Advanced Leve1 3 speaker incomprehensible once. Advanced Level 4 speech was free of any grammatical errors that hampered comprehension for native Russian speakers. Thus, L-2 grammatical errors complicated L-1 comprehension a total of 16 times.

Comp most impeded due to grammar
By Speaker Level English speaker - yes/no=no

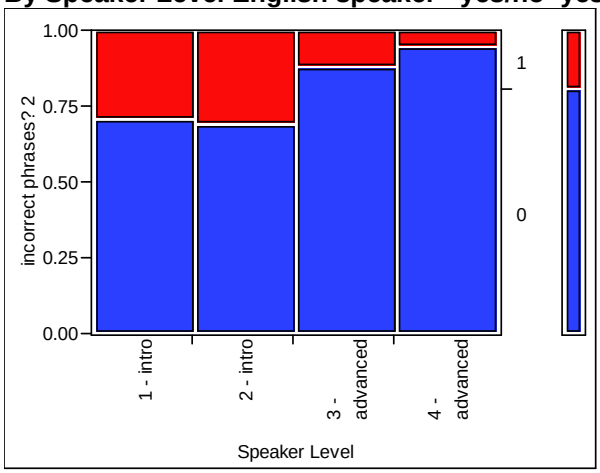


Comp most impeded due to grammar

Count Total % Col % Row %	0	1	
1 - intro	37 21.02 23.13 84.09	7 3.98 43.75 15.91	44 25.00
2 - intro	36 20.45 22.50 81.82	8 4.55 50.00 18.18	44 25.00
3 - advanced	43 24.43 26.88 97.73	1 0.57 6.25 2.27	44 25.00
4 - advanced	44 25.00 27.50 100.00	0 0.00 0.00 0.00	44 25.00
	160 90.91	16 9.09	176

Scores between English-speaking and non-English-speaking Russians and incomprehension due to incorrectly formed L-2 phrases did not differ greatly. Russians who speak English did not understand Introductory Level 1 speakers 17 times due to incorrectly structured phrases, Introductory Level 2 speakers were incomprehensible 18 times, Advanced Level 3 speakers 7 times and Advanced Level 4 speakers 3 times. Therefore, the use of incorrectly formed L-2 phrases resulted in incomprehension for Russians who speak English 45 times.

Incorrect phrases
By Speaker Level English speaker - yes/no=yes

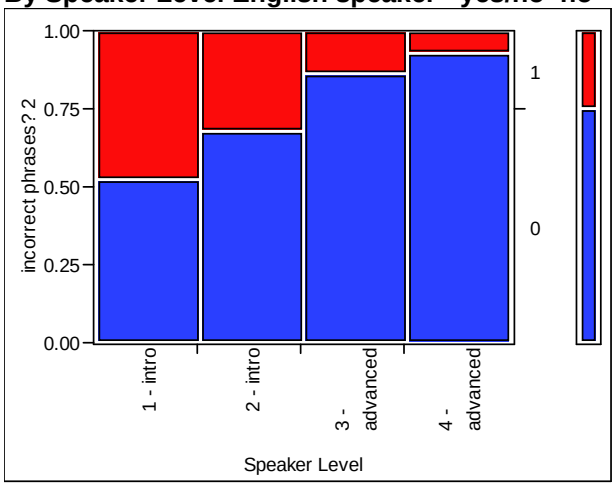


Incorrect phrases

Count Total % Col % Row %	0	1	
1 - intro	41 17.67 21.93 70.69	17 7.33 37.78 29.31	58 25.00
2 - intro	40 17.24 21.39 68.97	18 7.76 40.00 31.03	58 25.00
3 - advanced	51 21.98 27.27 87.93	7 3.02 15.56 12.07	58 25.00
4 - advanced	55 23.71 29.41 94.83	3 1.29 6.67 5.17	58 25.00
	187 80.60	45 19.40	232

Russians who do not speak English heard 21 instances when Introductory Level 1 speech was incomprehensible due to incorrectly structured phrases, 14 such cases occurred among Introductory Level 2 speakers, 6 among Advanced Level 3 speakers and 3 among Advanced Level 4 speakers, which resulted in 44 total instances when incorrectly formed phrases led to L-1 incomprehension.

Incorrect phrases
By Speaker Level English speaker - yes/no=no

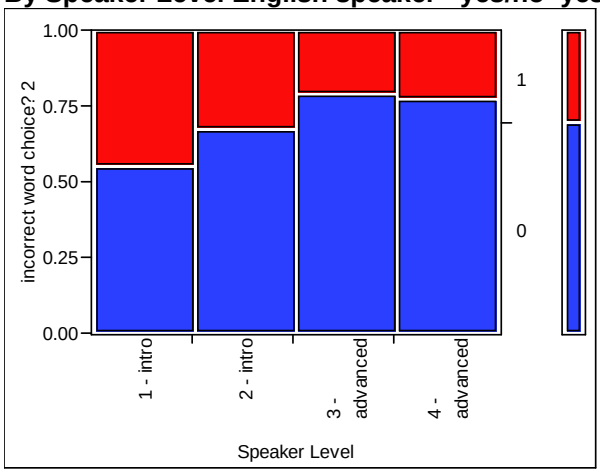


Incorrect phrases

Count Total % Col % Row %	0	1	
1 - intro	23 13.07 17.42 52.27	21 11.93 47.73 47.73	44 25.00
2 - intro	30 17.05 22.73 68.18	14 7.95 31.82 31.82	44 25.00
3 - advanced	38 21.59 28.79 86.36	6 3.41 13.64 13.64	44 25.00
4 - advanced	41 23.30 31.06 93.18	3 1.70 6.82 6.82	44 25.00
	132 75.00	44 25.00	176

Incorrect word choice by non-natives resulted in twice as many instances of incomprehension for Russians who speak English as it did for their counterparts. Listeners in the former category noted 26 instances when meaning was unclear among Introductory Level 1 speakers due to incorrect word choice, 19 such instances were heard among Introductory Level 2 speakers, 12 among Advanced Level 3 speakers and 13 among Advanced Level 4 speakers. English-speaking Russians noted 70 total cases when L-2 word choice errors resulted in incomprehension.

Incorrect word choice
By Speaker Level English speaker - yes/no=yes

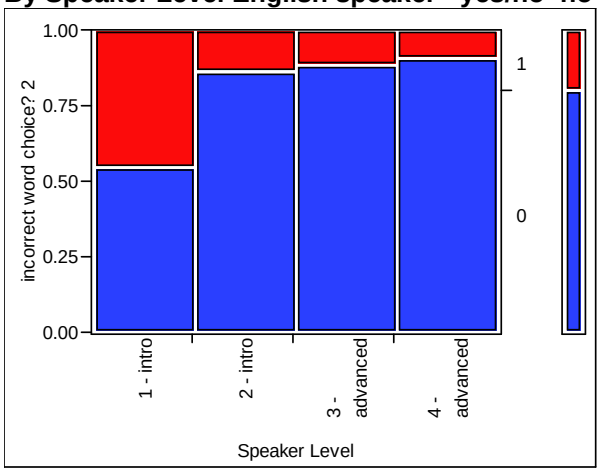


Incorrect word choice

Count Total % Col % Row %	0	1	
1 - intro	32 13.79 19.75 55.17	26 11.21 37.14 44.83	58 25.00
2 - intro	39 16.81 24.07 67.24	19 8.19 27.14 32.76	58 25.00
3 - advanced	46 19.83 28.40 79.31	12 5.17 17.14 20.69	58 25.00
4 - advanced	45 19.40 27.78 77.59	13 5.60 18.57 22.41	58 25.00
	162 69.83	70 30.17	232

Russians who do not speak English, on the other hand, did not have as much difficulty understanding L-2 speech that contained word choice errors as their counterparts. In particular, Introductory Level 1 word choice errors hampered L-1 comprehension 20 times, errors by Introductory Level 2 speakers led to incomprehension 6 times, errors of Advanced Level 3 speakers 5 times, and 4 times among Advanced Level 4 speakers. Therefore, non-English-speaking Russians rated incorrect L-2 word choice as having hampered their comprehension a total of 35 times.

Incorrect word choice
By Speaker Level English speaker - yes/no=no

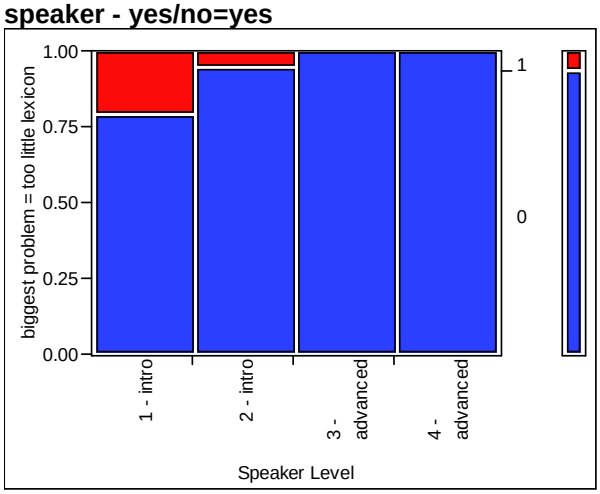


Incorrect word choice

Count Total % Col % Row %	0	1	
1 - intro	24 13.64 17.02 54.55	20 11.36 57.14 45.45	44 25.00
2 - intro	38 21.59 26.95 86.36	6 3.41 17.14 13.64	44 25.00
3 - advanced	39 22.16 27.66 88.64	5 2.84 14.29 11.36	44 25.00
4 - advanced	40 22.73 28.37 90.91	4 2.27 11.43 9.09	44 25.00
	141 80.11	35 19.89	176

"Too little lexicon" impeded the comprehension of English-speaking and non-English-speaking Russians also equally. Russians who speak English noted 12 cases when lack of lexicon by Introductory Level 1 speakers resulted in incomprehension and 3 such cases among Introductory Level 2 speakers. However, no instances were heard among Advanced Level 3 or 4 speakers. The total number of times that comprehension was impeded due to lack of L-2 lexicon was 15.

Too little lexicon By Speaker Level English speaker - yes/no=yes

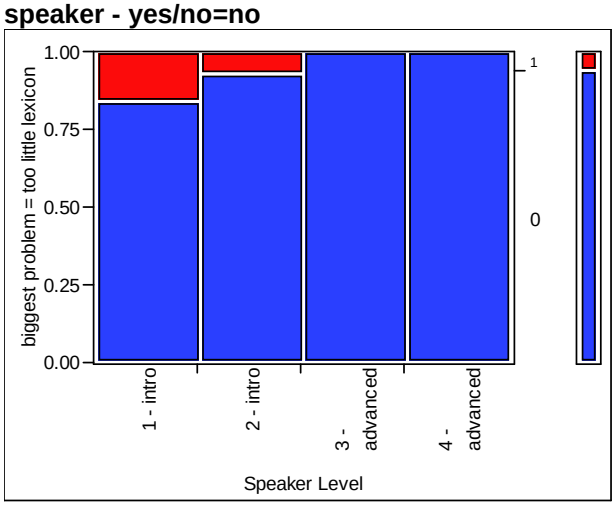


Too little lexicon

Count Total % Col % Row %	0	1	
1 - intro	46 19.83 21.20 79.31	12 5.17 80.00 20.69	58 25.00
2 - intro	55 23.71 25.35 94.83	3 1.29 20.00 5.17	58 25.00
3 - advanced	58 25.00 26.73 100.00	0 0.00 0.00 0.00	58 25.00
4 - advanced	58 25.00 26.73 100.00	0 0.00 0.00 0.00	58 25.00
	217 93.53	15 6.47	232

Russians who do not speak English noted 7 instances when the speech of Introductory Level 1 speakers was unclear due to lack of lexicon, while only 3 such cases where heard among Introductory Level 2 speakers. Listeners did not note any instances of incomprehensibility of Advanced Level 3 or 4 speech due to lack of lexicon. Thus, listeners noted 10 total instances when too little L-2 lexicon caused incomprehension.

Too little lexicon By Speaker Level English speaker - yes/no=no

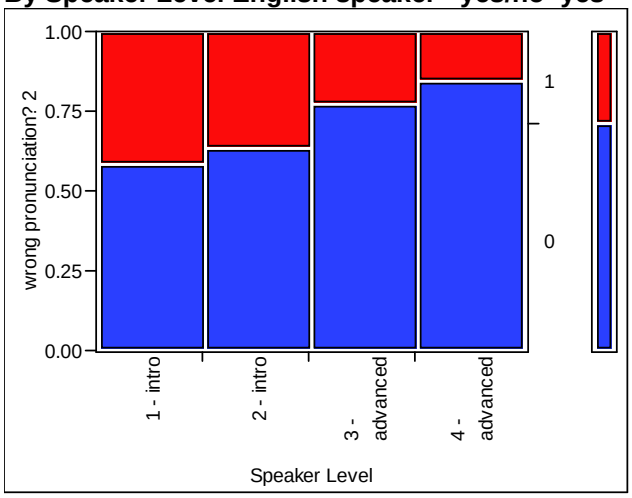


Too little lexicon

Count Total % Col % Row %	0	1	
1 - intro	37 21.02 22.29 84.09	7 3.98 70.00 15.91	44 25.00
2 - intro	41 23.30 24.70 93.18	3 1.70 30.00 6.82	44 25.00
3 - advanced	44 25.00 26.51 100.00	0 0.00 0.00 0.00	44 25.00
4 - advanced	44 25.00 26.51 100.00	0 0.00 0.00 0.00	44 25.00
	166 94.32	10 5.68	176

Finally, there were 24 instances when Russians who speak English judged incorrect Introductory Level 1 pronunciation as having hindered comprehension, while 21 such instances were recorded among Introductory Level 2 speakers. Pronunciation errors resulted in 13 instances of L-1 incomprehension of Advanced Level 3 speakers and 9 of Advanced Level 4 speakers. As a result, non-native pronunciation errors caused incomprehension for English speakers 67 times.

Wrong pronunciation
By Speaker Level English speaker - yes/no=yes

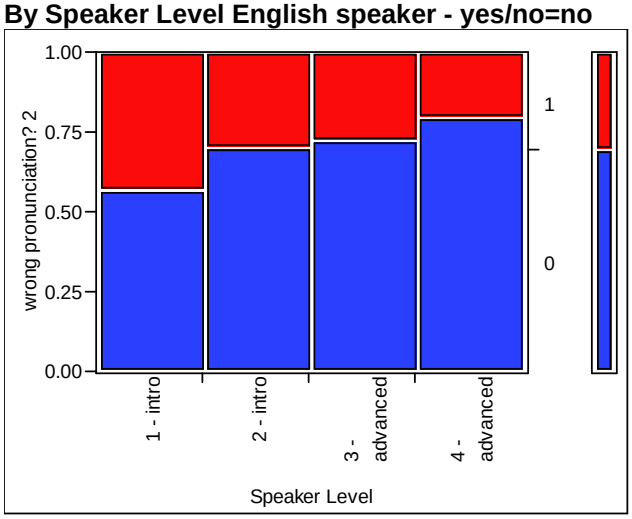


Wrong pronunciation

Count Total % Col % Row %	0	1	
1 - intro	34 14.66 20.61 58.62	24 10.34 35.82 41.38	58 25.00
2 - intro	37 15.95 22.42 63.79	21 9.05 31.34 36.21	58 25.00
3 - advanced	45 19.40 27.27 77.59	13 5.60 19.40 22.41	58 25.00
4 - advanced	49 21.12 29.70 84.48	9 3.88 13.43 15.52	58 25.00
	165 71.12	67 28.88	232

Conversely, Russians who do not speak English judged incorrect Introductory Level 1 speaker pronunciation as incomprehensible 19 times, 13 times among Introductory Level 2 speakers, 12 times among Advanced Level 3 speakers and 9 times among Advanced Level 4 speakers. Thus, incorrect L-2 pronunciation impeded L-1 comprehension 53 times.

Wrong pronunciation
By Speaker Level English speaker - yes/no=no



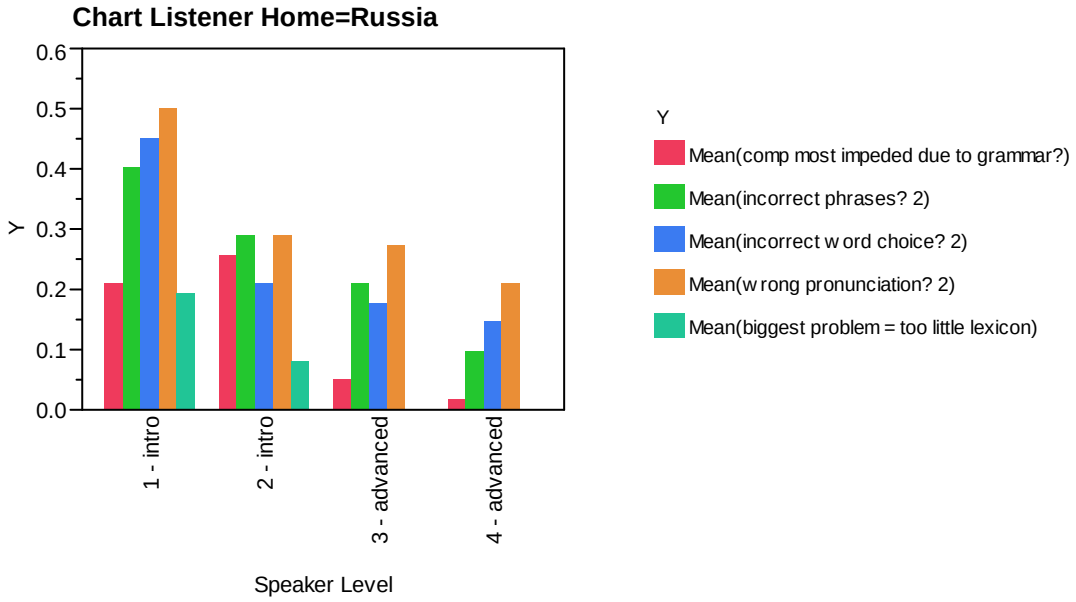
Wrong pronunciation

Count Total % Col % Row %	0	1	
1 - intro	25 14.20 20.33 56.82	19 10.80 35.85 43.18	44 25.00
2 - intro	31 17.61 25.20 70.45	13 7.39 24.53 29.55	44 25.00
3 - advanced	32 18.18 26.02 72.73	12 6.82 22.64 27.27	44 25.00
4 - advanced	35 19.89 28.46 79.55	9 5.11 16.98 20.45	44 25.00
	123 69.89	53 30.11	176

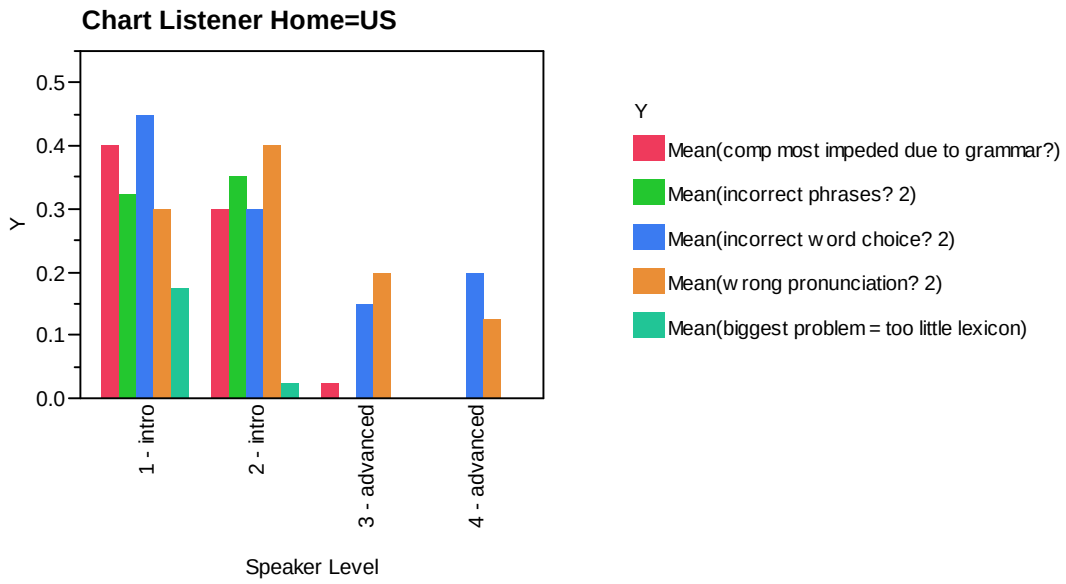
3.2.3 – Bar Graphs

I now present bar graphs to compare how listener reactions to speaker errors. I begin by focusing on the errors within each speaker level that caused the most incomprehension for Russians in Russia.

Russians in Russia had the most difficulty understanding Introductory Level 1, Advanced Level 3 and Advanced Level 4 speakers who used incorrect pronunciation. However, incorrect phrases and pronunciation used by Introductory Level 2 speakers were equally difficult for L-1 speakers to comprehend.



Conversely, Russians in the US had the greatest difficulty understanding Introductory Level 1 and Advanced Level 4 speakers who used words incorrectly, while wrong pronunciation resulted in incomprehensibility of Introductory Level 2 and Advanced Level 3 speakers.



The following bar graphs compare the reactions of Russians in Russia and the US to speaker error within each level and illustrate that the opinions of listeners coincided only for Advanced Level 3 speakers.

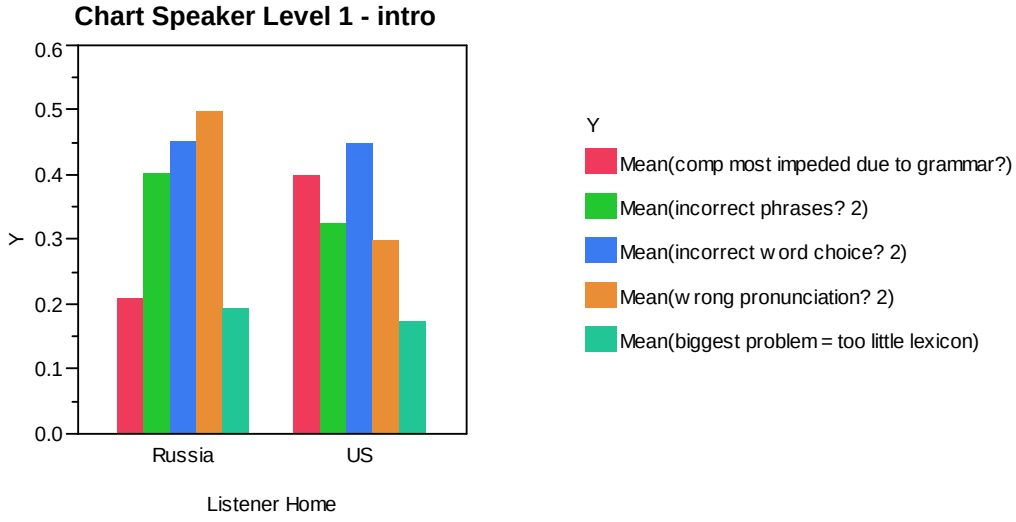


Chart Speaker Level 2 - intro

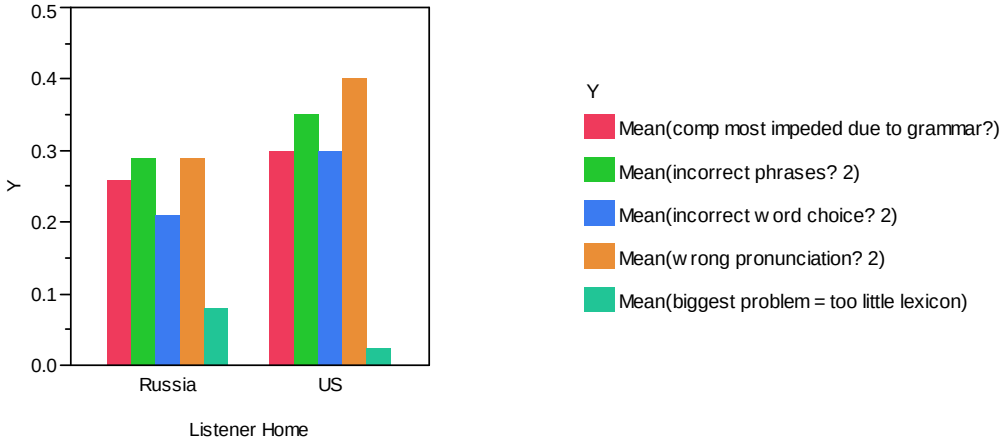


Chart Speaker Level 3 - advanced

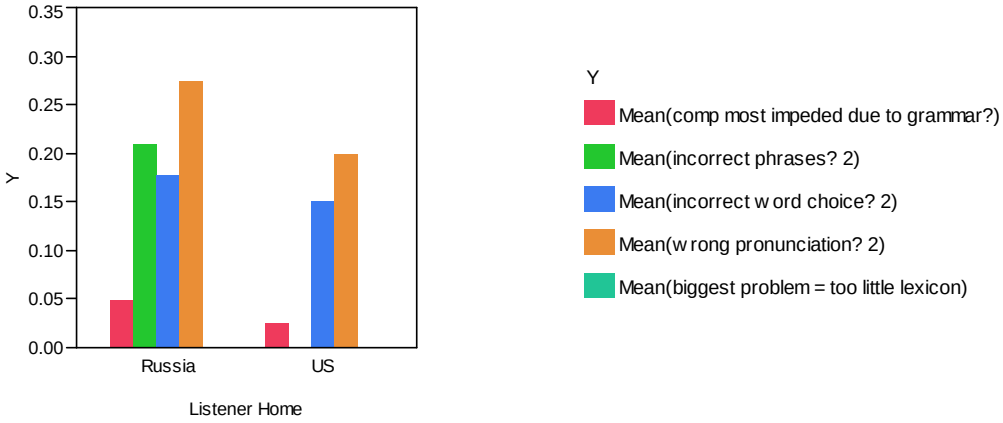
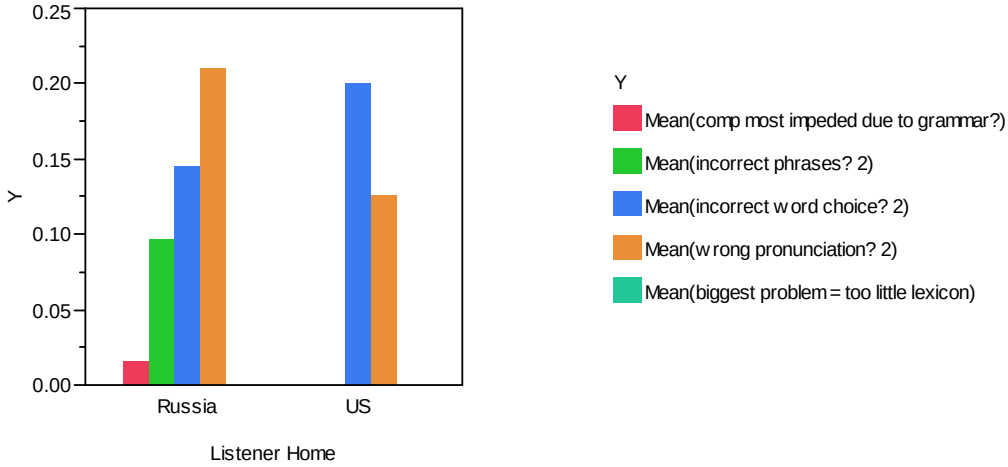
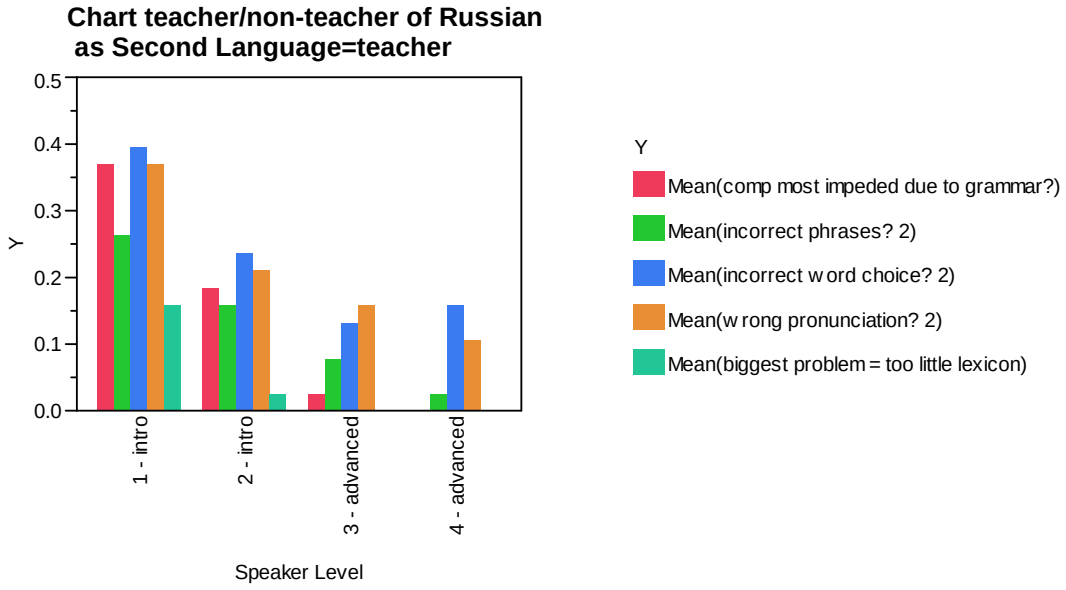


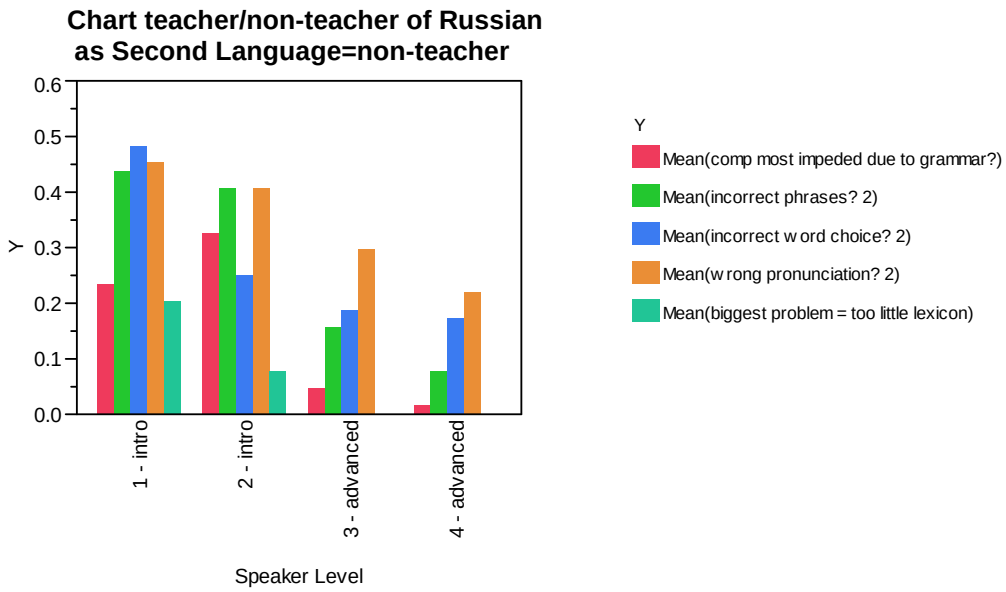
Chart Speaker Level 4 - advanced



Teachers of Russian as a Second Language rated “incorrect word choice” as the L-2 error that interfered the most with their comprehension of Introductory Level 1, 2 and Advanced Level 4 speakers. However, listeners rated incorrect L-2 pronunciation as having most impeded their comprehension of Advanced Level 3 speakers.



Just as teachers had the most difficulty comprehending Introductory Level 1 speakers due to word choice errors, so did non-teachers also rate this error as the most serious among novice-level speakers. In addition, incorrect pronunciation caused the most comprehension for non-teachers among Advanced Level 3 speakers, just as it had among their counterparts. However, the leading cause of Introductory Level 2 and Advanced Level 4 incomprehension differed for teachers and non-teachers. Specifically, individuals who do not teach Russian thought incorrectly formed phrases and pronunciation led, first and foremost, to incomprehension of Introductory Level 2 speakers, while pronunciation impeded L-1 comprehension of Advanced Level 4 speakers.



The bar graphs below illustrate that teachers and non-teachers had similar opinions about the most salient L-2 errors among Introductory Level 1 and Advanced Level 3 speakers.

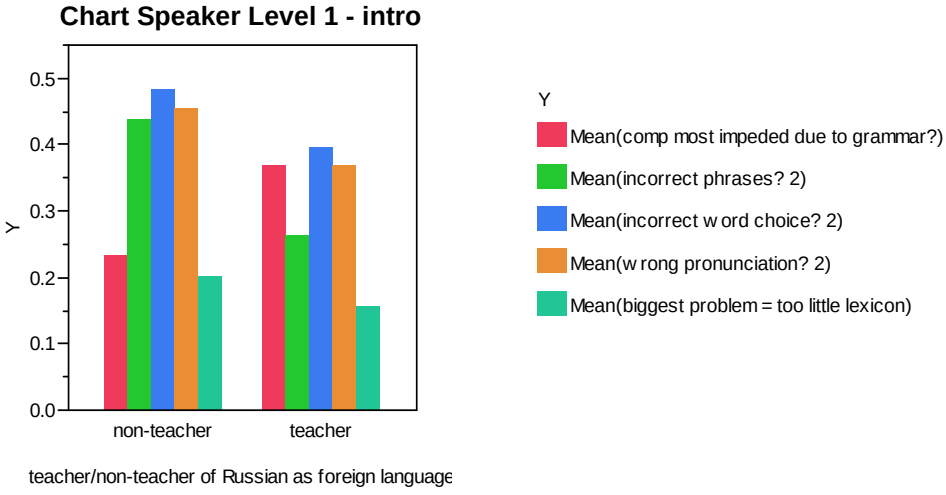


Chart Speaker Level 2 - intro

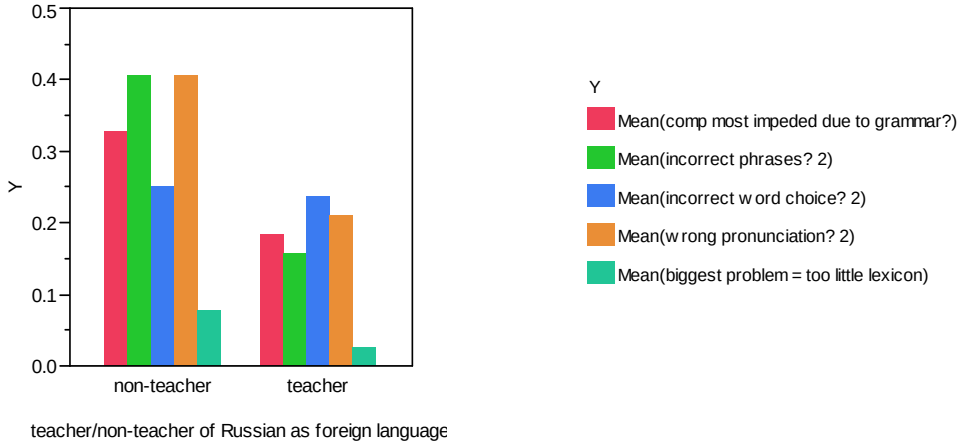


Chart Speaker Level 3 - advanced

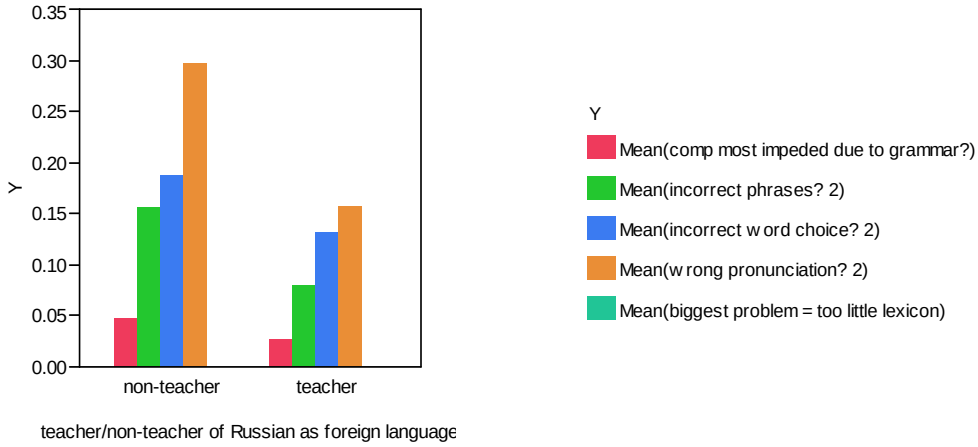
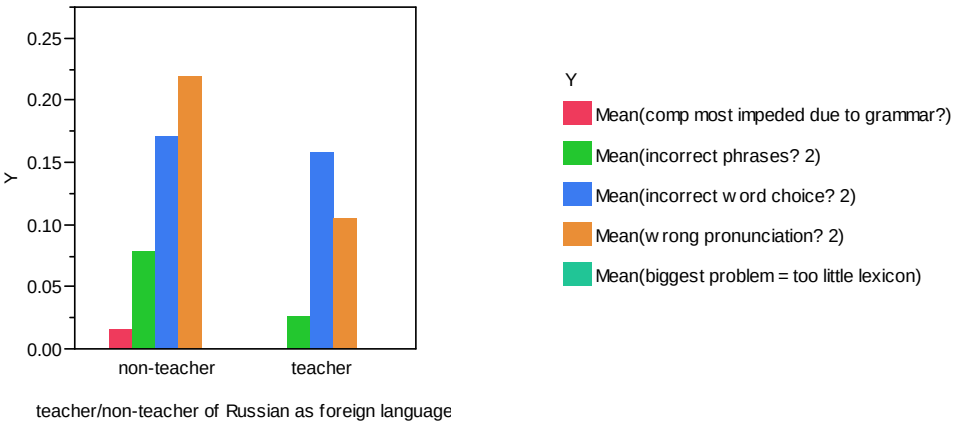
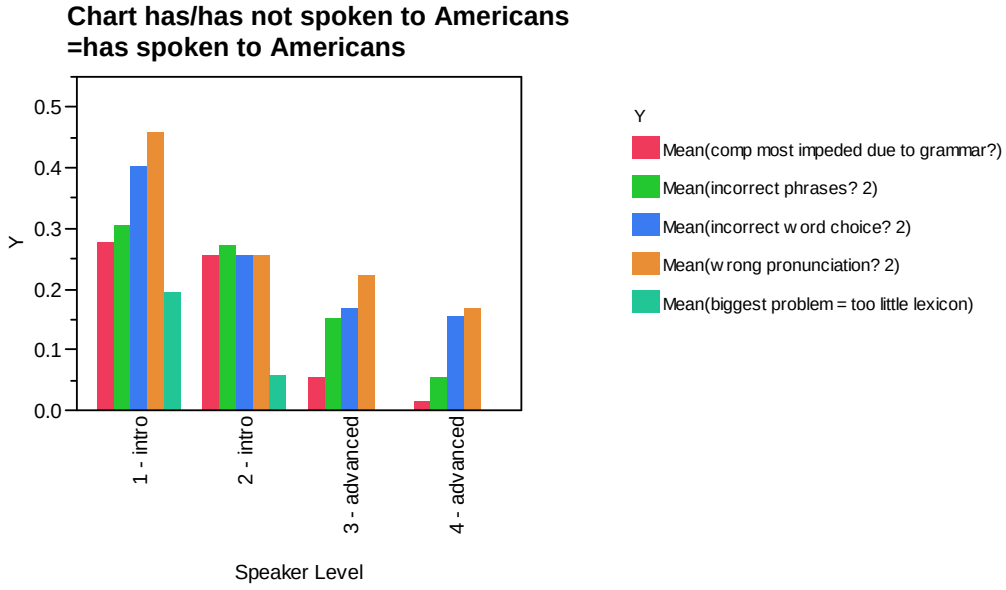


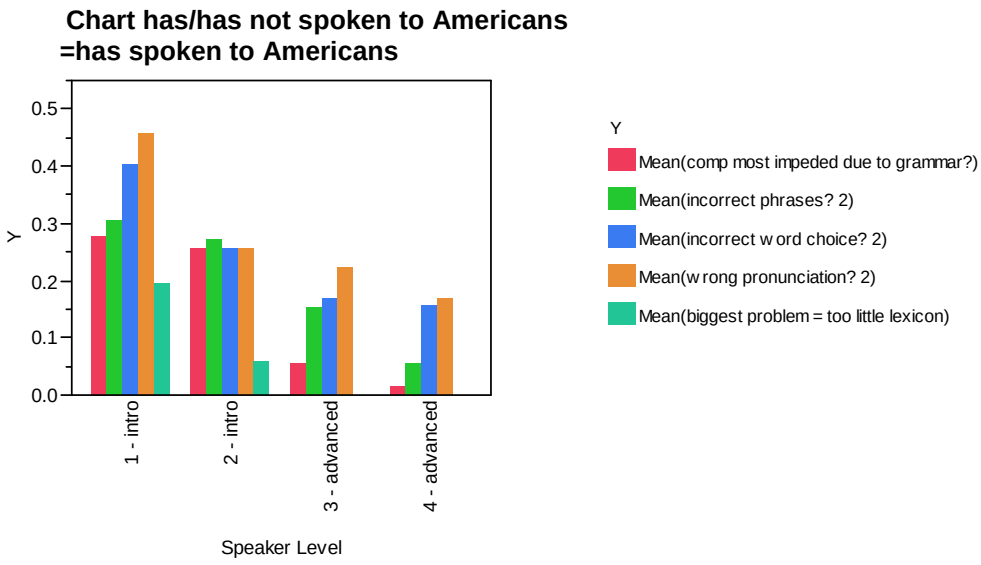
Chart Speaker Level 4 - advanced



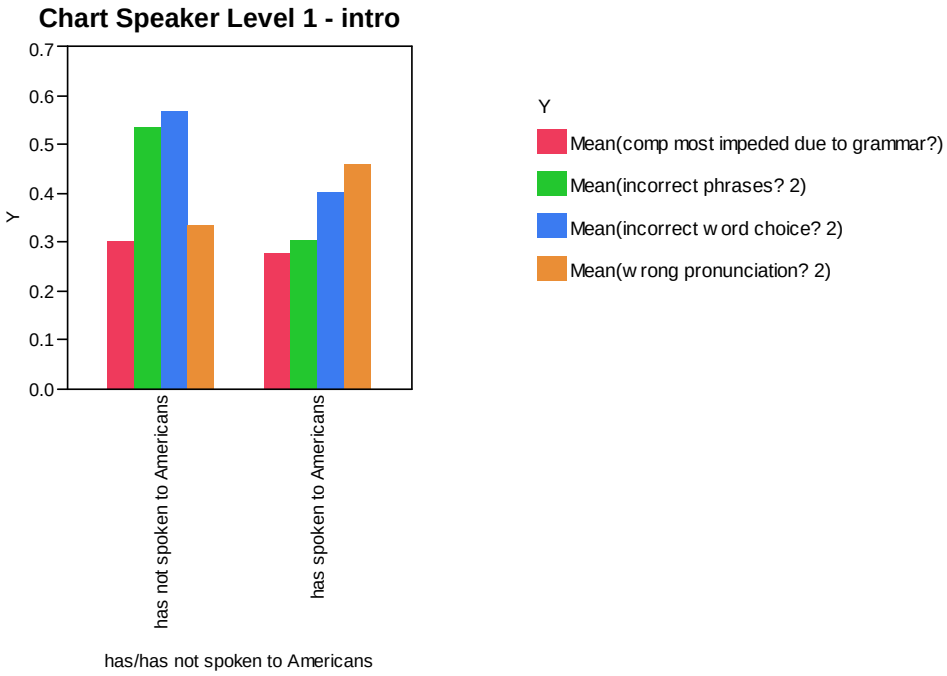
The data obtained from Russians who have spoken with Americans illustrate that incorrect pronunciation was the leading source of L-1 incomprehension of Introductory Level 1, Advanced Level 3 and 4 speakers. Incorrectly formed phrases, however, were rated as having most severely impeded listener comprehension of Introductory Level 2 speakers.



For Russians who have not spoken with Americans pronunciation also hindered comprehensibility more than did the other four errors studied. Russians who have not had prior contact with Americans rated incorrect pronunciation as having caused the most incomprehension of Introductory Level 2 and Advanced Level 3 speakers. However, incorrect word choice led to the greatest amount of listener incomprehension of Introductory Level 1 speakers, while incorrect word choice *and* wrong pronunciation were rated as having hindered L-1 listener comprehension of Advanced Level 4 speakers to an equal degree.



A comparison of the bar graphs that pair Russians who have and have not spoken to Americans reveals that only among Advanced Level 3 speakers did the same error hamper comprehension for listeners in these two groups.



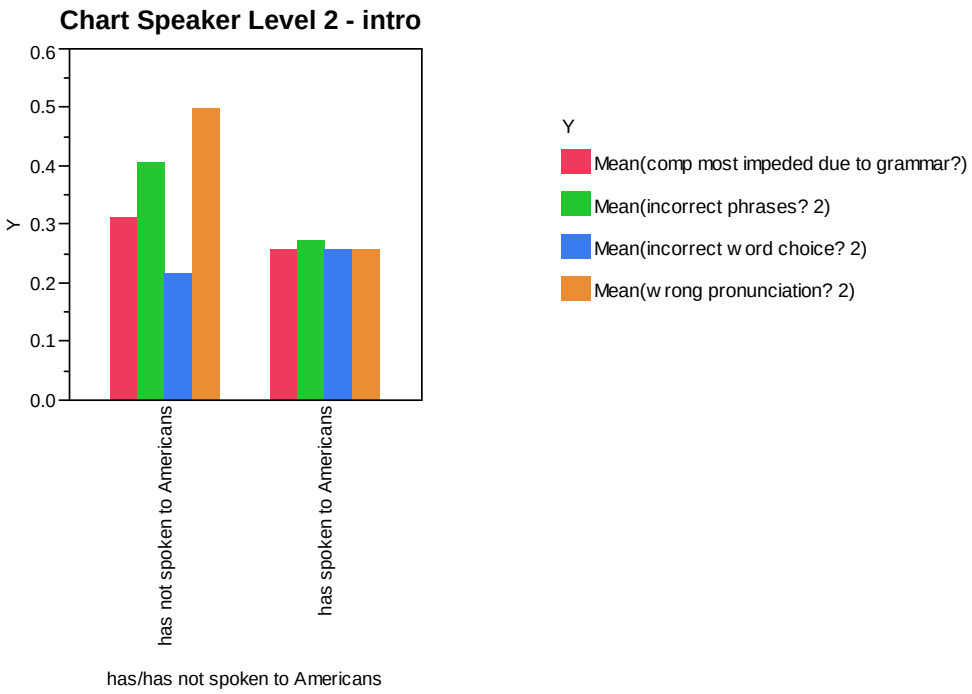


Chart Speaker Level 2 - intro
0.6
0.5
0.4
0.3
0.2
0.1
0.0
Y
has not spoken to Americans
has spoken to Americans
has/has not spoken to Americans
Y
Mean(comp most impeded due to grammar?)
Mean(incorrect phrases? 2)
Mean(incorrect w ord choice? 2)
Mean(w rong pronunciation? 2)

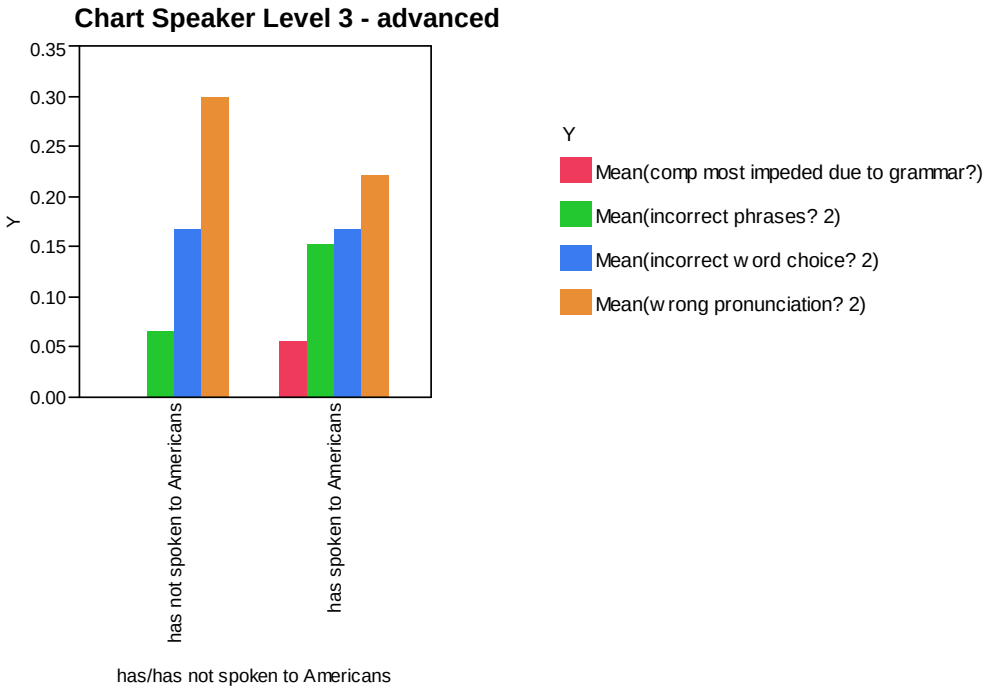
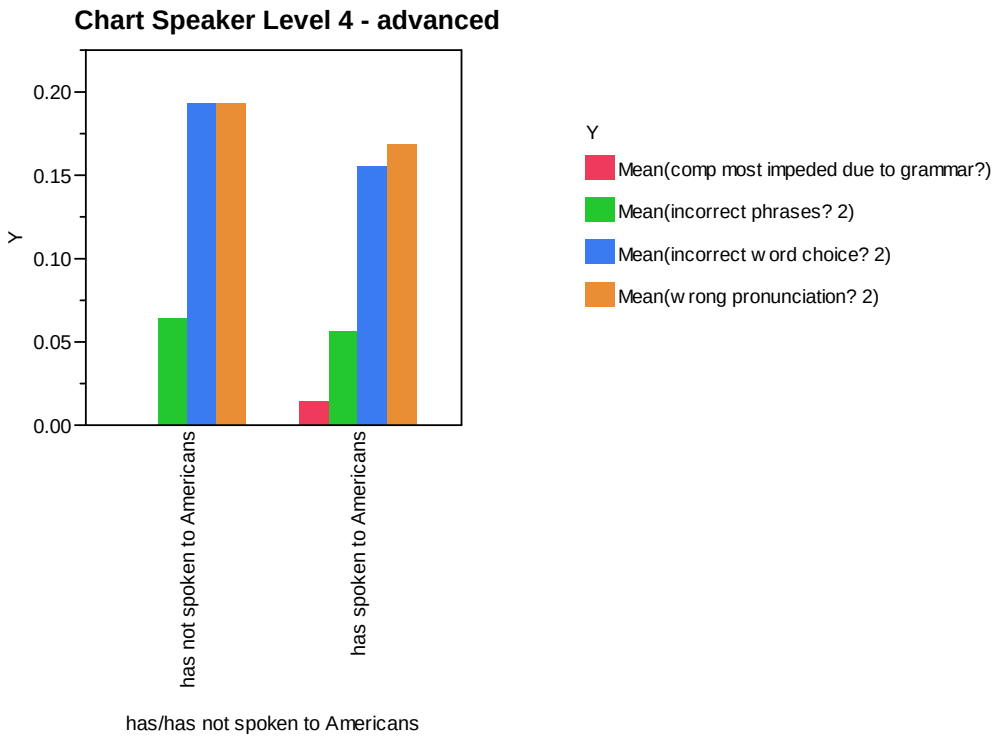
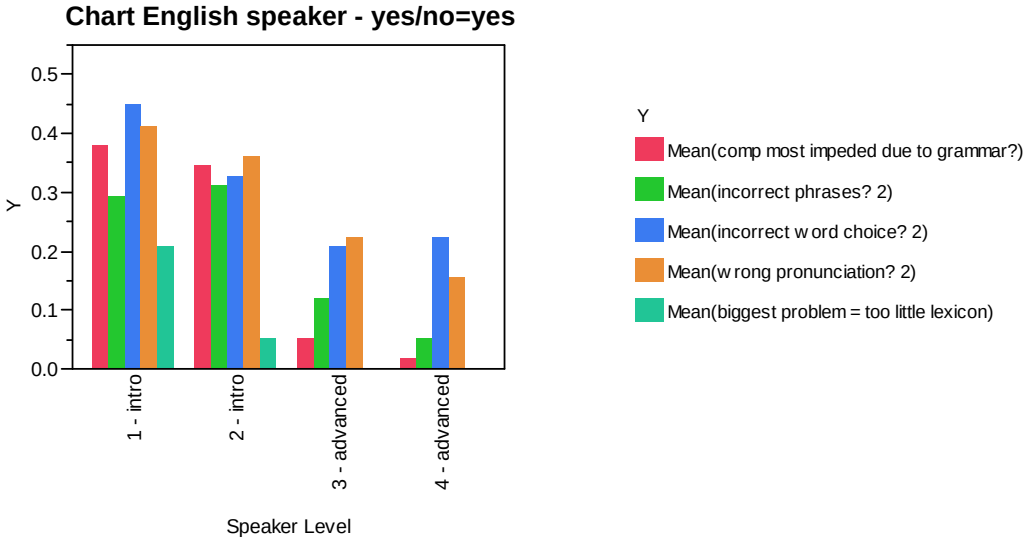


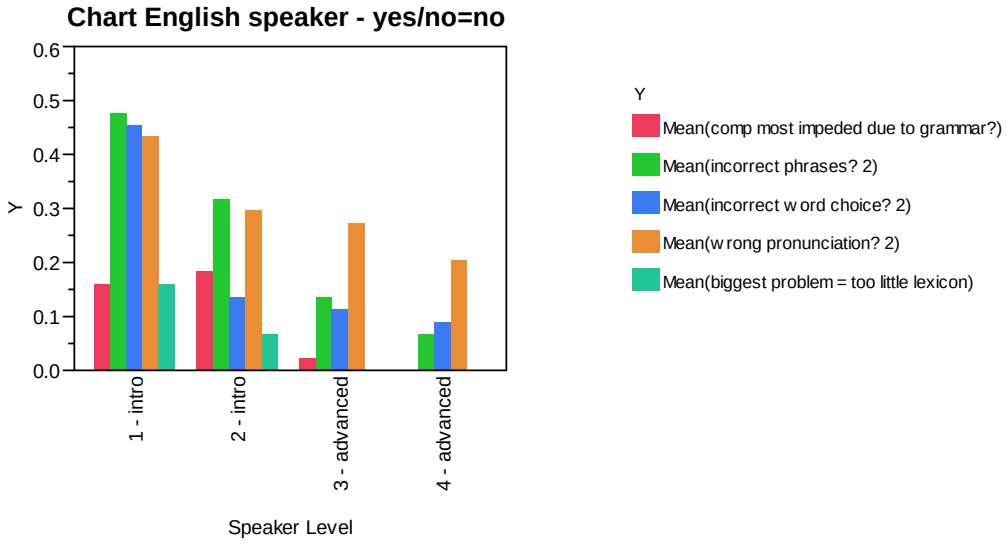
Chart Speaker Level 3 - advanced
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
Y
has not spoken to Americans
has spoken to Americans
has/has not spoken to Americans
Y
Mean(comp most impeded due to grammar?)
Mean(incorrect phrases? 2)
Mean(incorrect w ord choice? 2)
Mean(w rong pronunciation? 2)



Russians who do speak English rated incorrect word choice as the error that most severely hindered comprehension when listening to Introductory Level 1 and Advanced Level 4 speakers, while wrong pronunciation was the error that listeners in this group rated as having impeded their comprehension of Introductory Level 2 and Advanced Level 3 speakers.



Conversely, Russians who do not speak English rated incorrectly formed phrases as the main source of incomprehension of Introductory Level 1 and 2 speakers, while these listeners thought incorrect L-2 pronunciation most impeded their comprehension of Advanced Level 3 and 4 speakers.



An examination of the bar graphs comparing Russians who do and do not speak Russian illustrates that listeners in these two groups had the same difficulty understanding Advanced Level 3 speakers with wrong pronunciation. For all other speaker groups, however, different errors caused incomprehension for English-speaking Russians than for those who do not speak English.

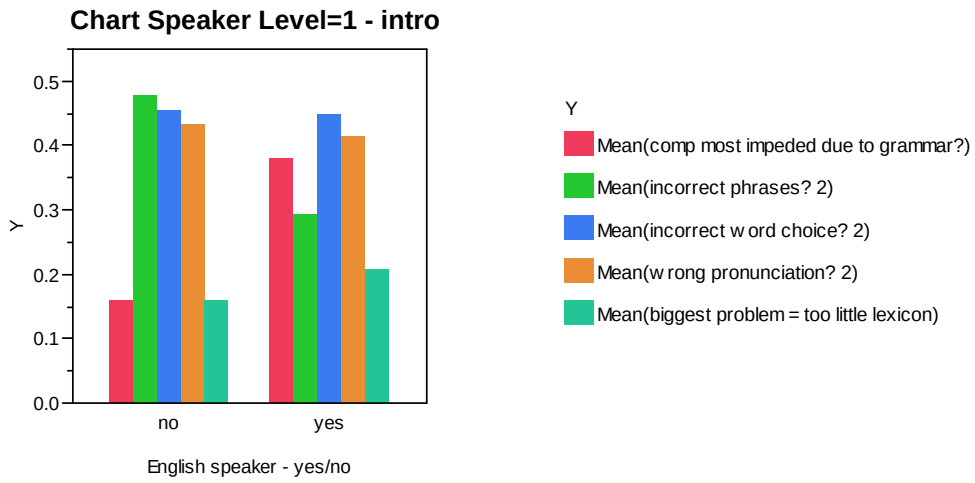


Chart Speaker Level=1 - intro
0.5
0.4
0.3
0.2
0.1
0.0
Y
no
yes
English speaker - yes/no
Y
Mean(comp most impeded due to grammar?)
Mean(incorrect phrases? 2)
Mean(incorrect w ord choice? 2)
Mean(w rong pronunciation? 2)
Mean(biggest problem = too little lexicon)

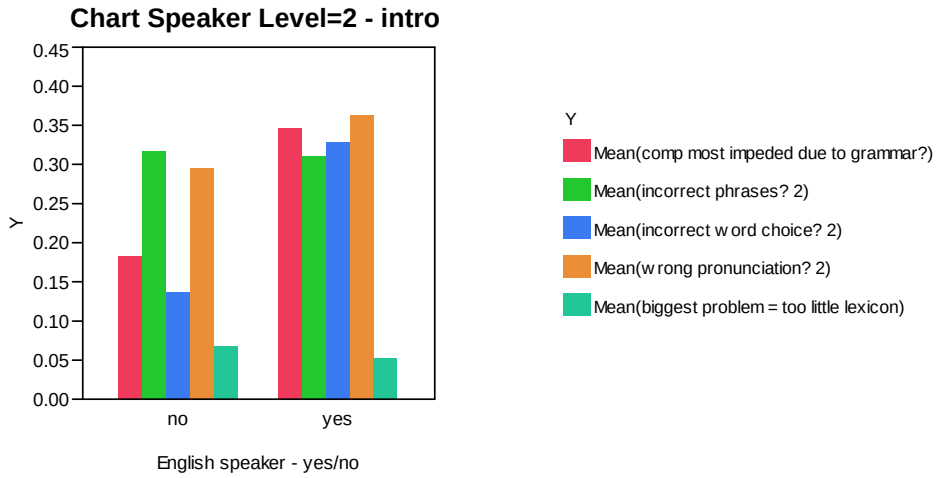


Chart Speaker Level=2 - intro
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
Y
no
yes
English speaker - yes/no
Y
Mean(comp most impeded due to grammar?)
Mean(incorrect phrases? 2)
Mean(incorrect w ord choice? 2)
Mean(w rong pronunciation? 2)
Mean(biggest problem = too little lexicon)

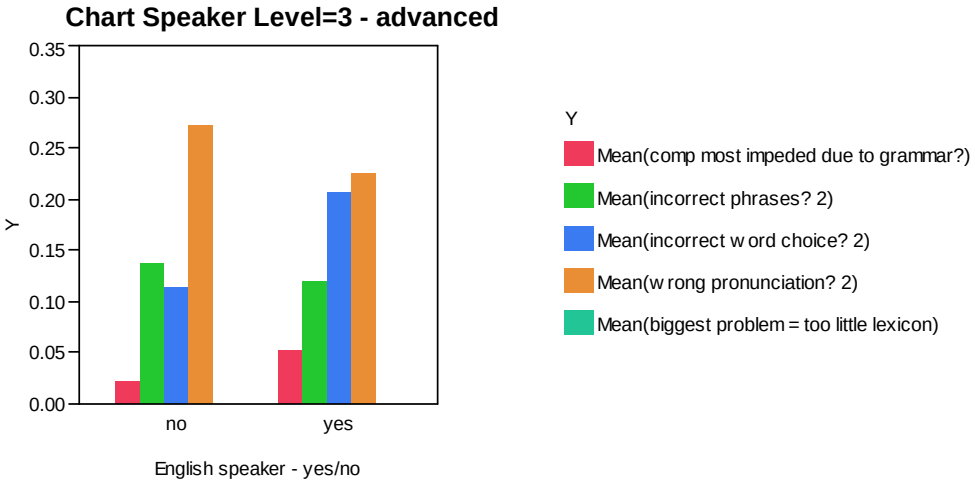


Chart Speaker Level=3 - advanced
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
Y
no
yes
English speaker - yes/no
Y
Mean(comp most impeded due to grammar?)
Mean(incorrect phrases? 2)
Mean(incorrect w ord choice? 2)
Mean(w rong pronunciation? 2)
Mean(biggest problem = too little lexicon)

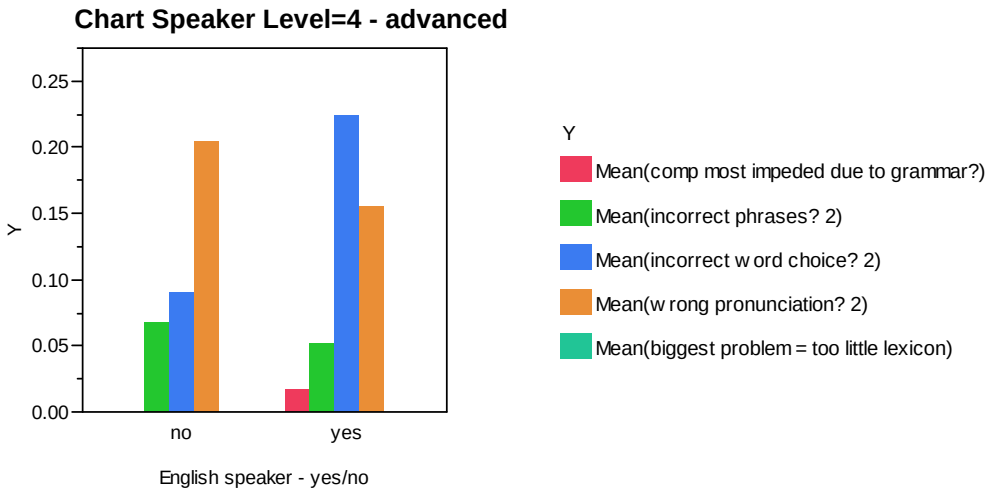
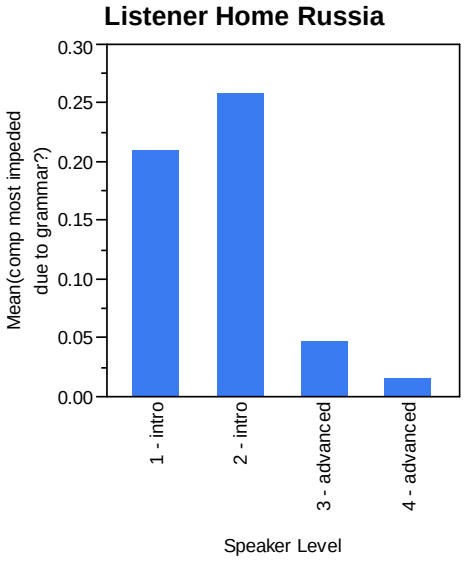


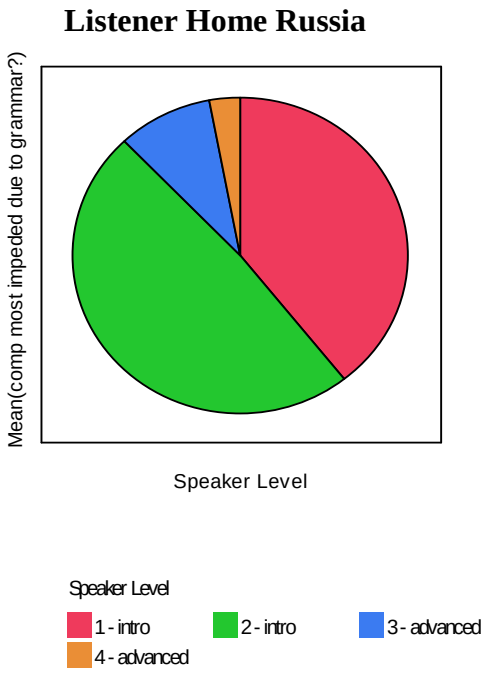
Chart Speaker Level=4 - advanced
0.25
0.20
0.15
0.10
0.05
0.00
Y
no
yes
English speaker - yes/no
Y
Mean(comp most impeded due to grammar?)
Mean(incorrect phrases? 2)
Mean(incorrect w ord choice? 2)
Mean(w rong pronunciation? 2)
Mean(biggest problem = too little lexicon)

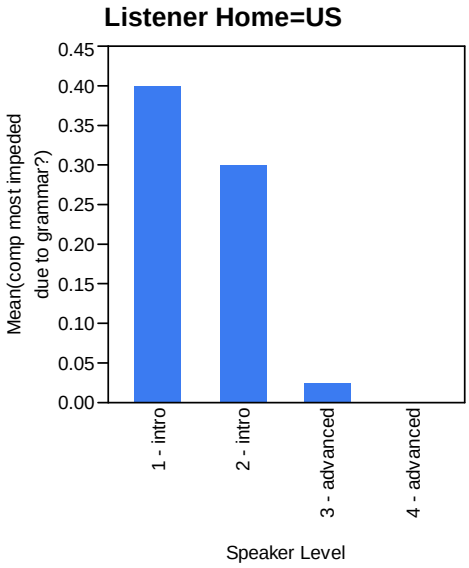
3.2.4 – Bar Graphs and Pie Charts

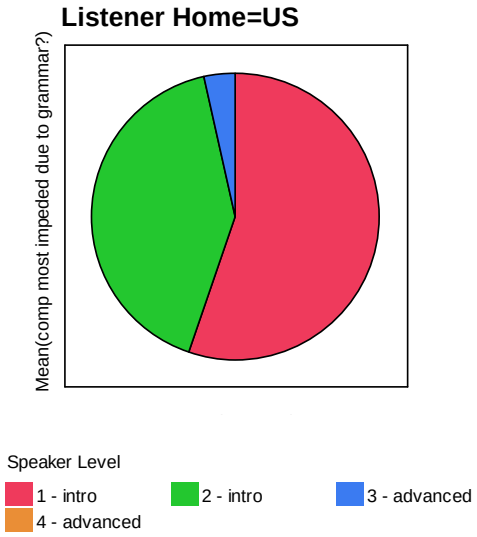
In the next section of my research I use bar graphs and pie charts to illustrate how each group of listeners reacted to the different types of errors they heard. The first error I examine is "comprehension most impeded due to grammar" and its affect on listeners from Russia and the US. I begin by looking at bar graphs and pie charts that compare listener ratings of errors within speaker levels and then examine ratings between the listener groups.

As the bar graphs illustrate, Russians in Russia had more difficulty comprehending Introductory Level 2 speakers who used incorrect grammar than did their counterparts, while Introductory Level 1 speakers who used incorrect grammar impeded comprehension most for Russians in the US.

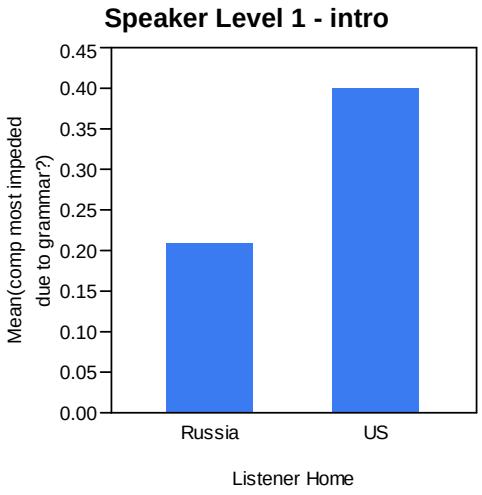


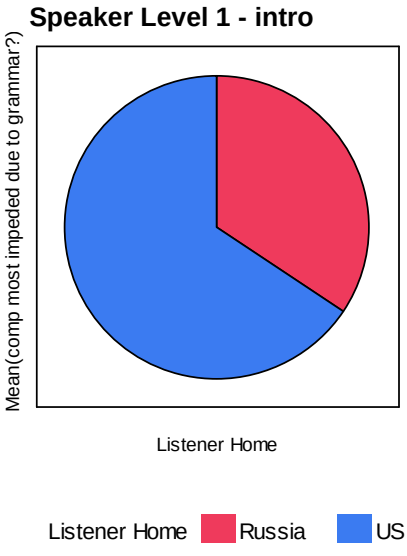


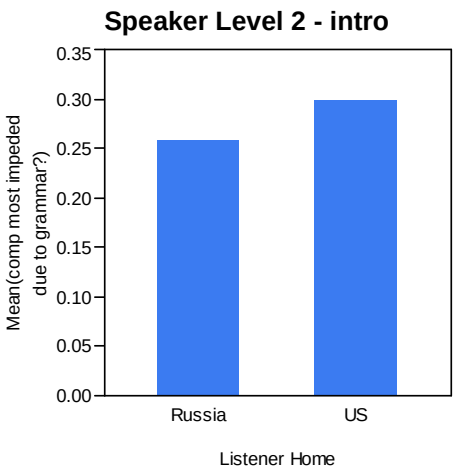


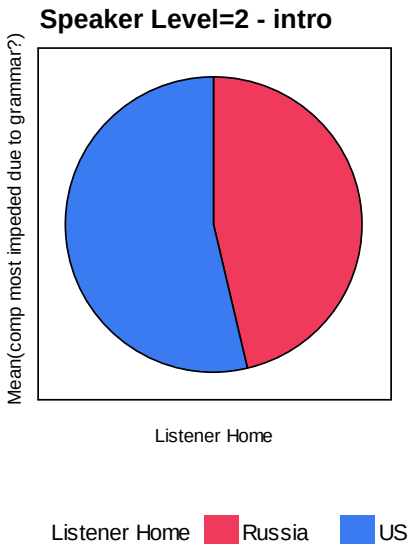


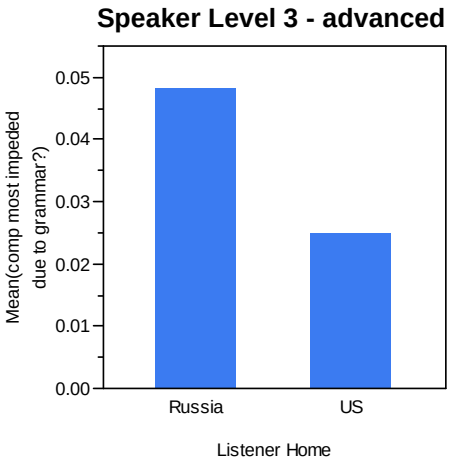
Based on the data below below, one sees that incorrect Introductory Level 1 and 2 grammar hampered comprehension for Russians in the US, while Russians in Russia had more difficulty comprehending Advanced Level 3 and 4 speakers who used incorrect grammar.

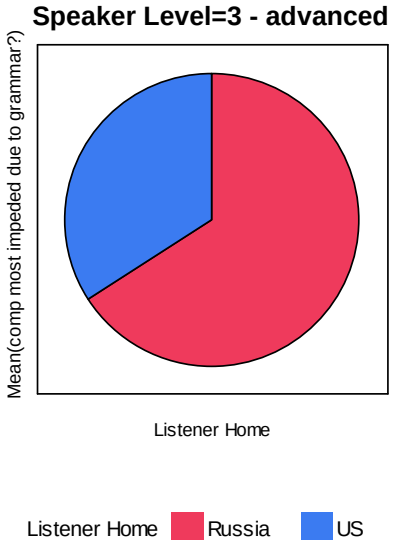


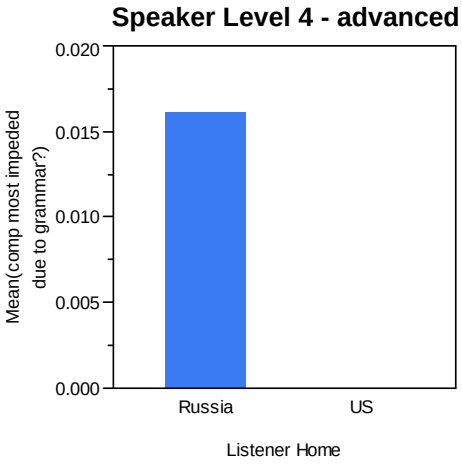


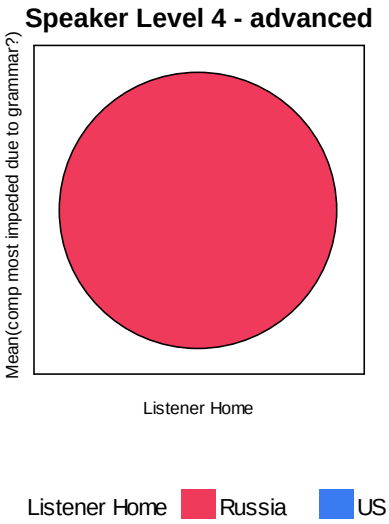

Speaker Level 2 - intro
Mean(comp most impeded due to grammar?)
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
Russia
US
Listener Home


Speaker Level=2 - intro
Mean(comp most impeded due to grammar?)
Listener Home
Listener Home
Russia
US

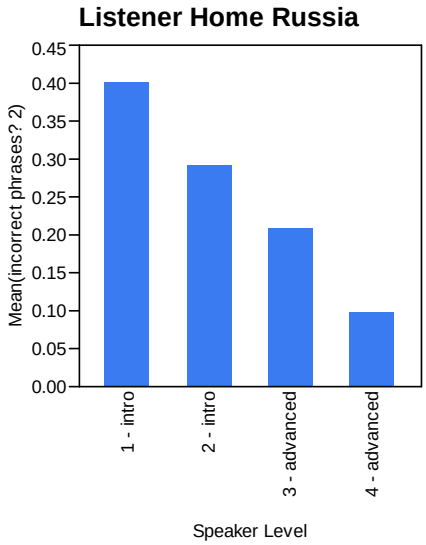

Speaker Level 3 - advanced
Mean(comp most impeded due to grammar?)
0.05
0.04
0.03
0.02
0.01
0.00
Russia
US
Listener Home

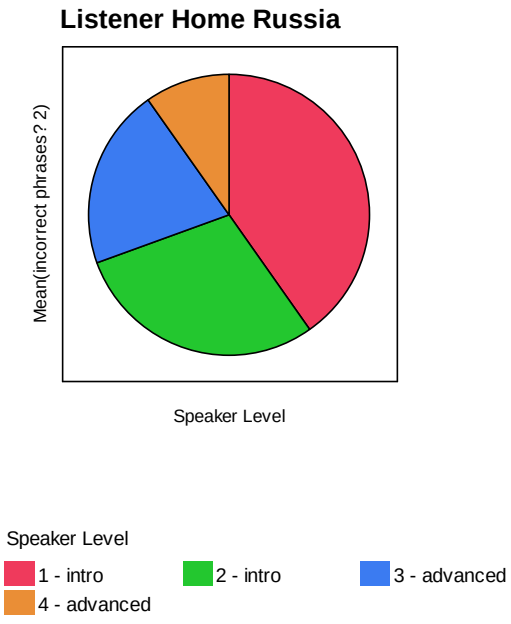

Speaker Level=3 - advanced
Mean(comp most impeded due to grammar?)
Listener Home
Listener Home
Russia
US

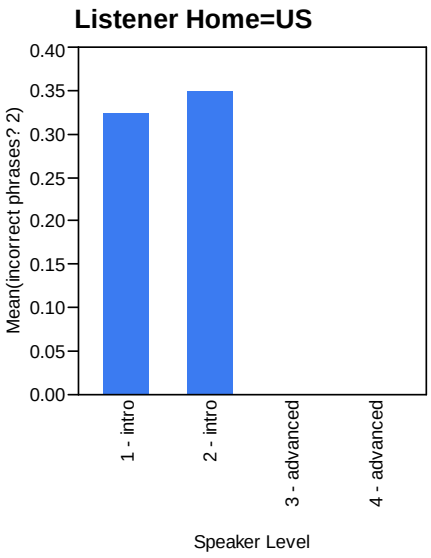


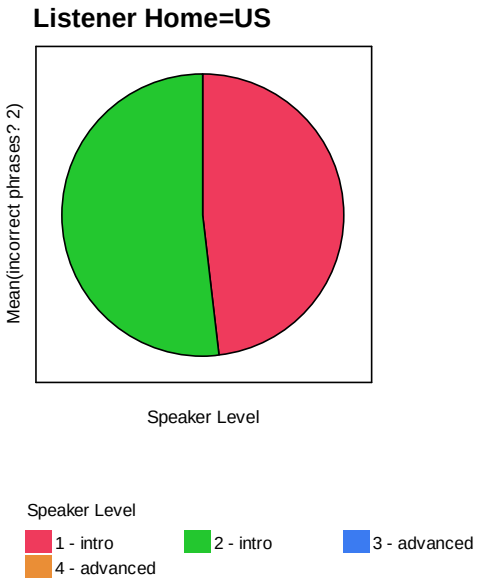


Regarding the second error of "incorrect phrases," Russians in Russia had the most difficulty comprehending Introductory Level 1 speakers who structured phrases incorrectly, while Russians in the US had difficulty comprehending Introductory Level 2 speakers who made this error.

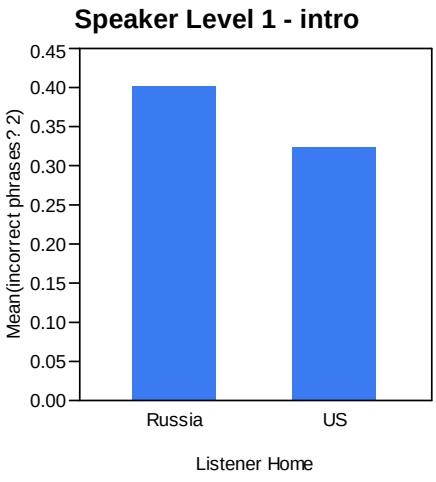


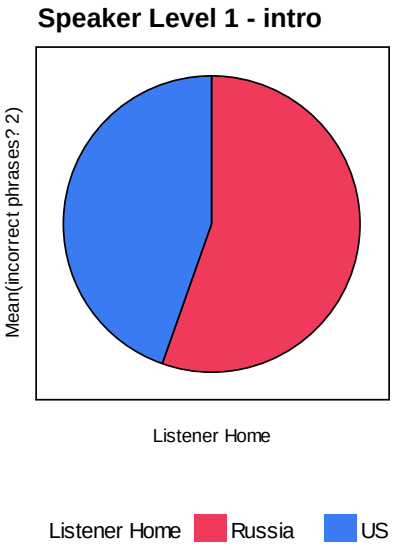


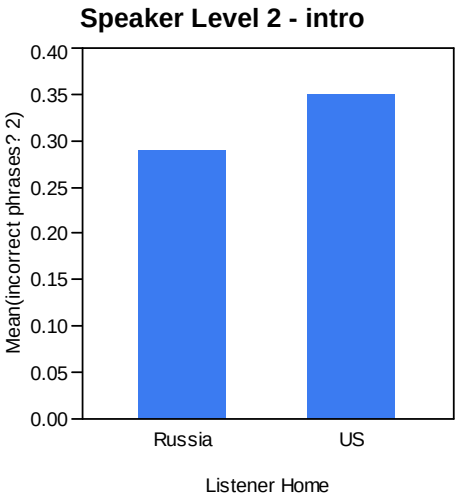


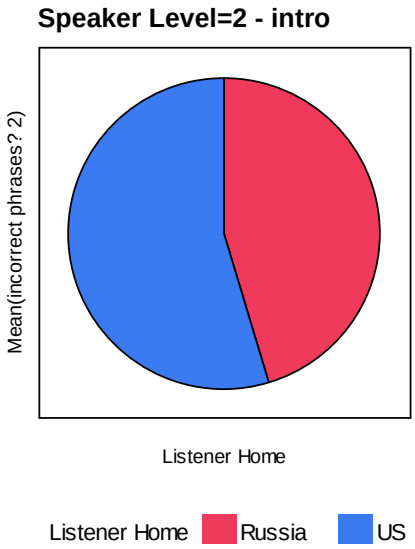


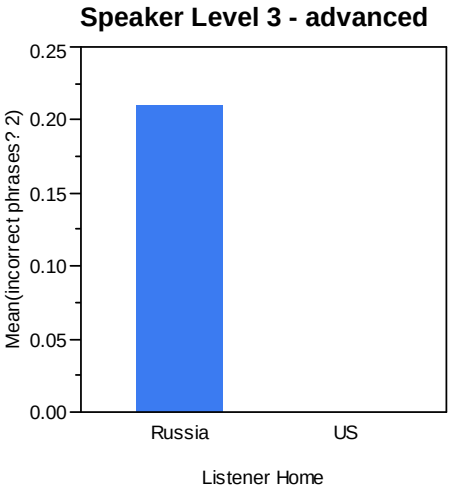
Russians in Russia rated "incorrectly used phrases" as having caused incomprehensibility among Introductory Level 1 and Advanced Level 3 and 4 speakers, while for Russians in the US this error impeded comprehensibility of only Introductory Level 2 speakers.

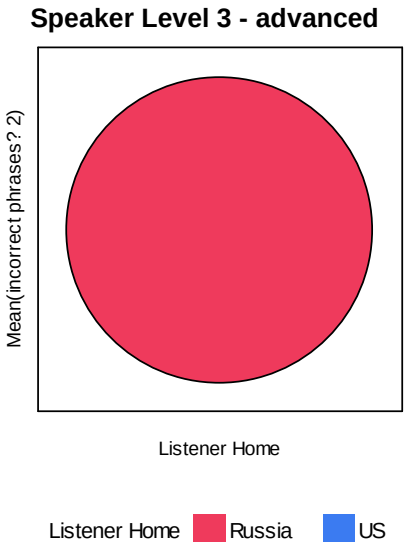


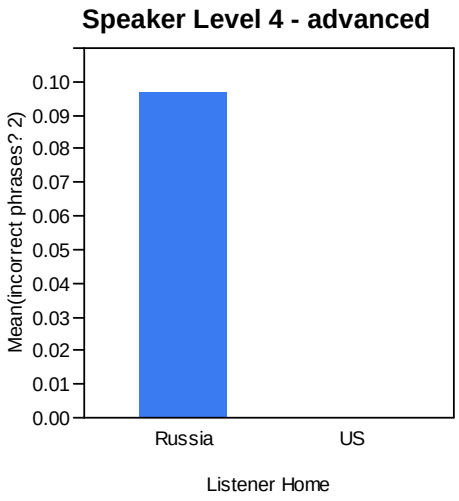


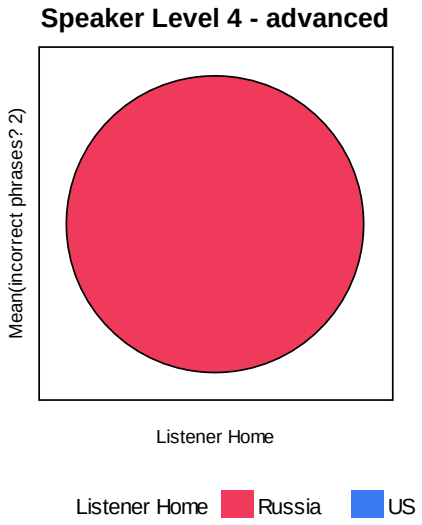

Speaker Level 2 - intro
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
Mean(incorrect phrases? 2)
Russia
US
Listener Home


Speaker Level=2 - intro
Mean(incorrect phrases? 2)
Listener Home
Listener Home
Russia
US

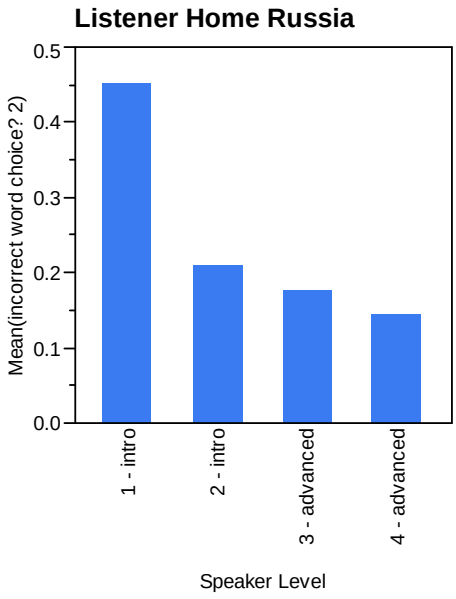

Speaker Level 3 - advanced
0.25
0.20
0.15
0.10
0.05
0.00
Mean(incorrect phrases? 2)
Russia
US
Listener Home

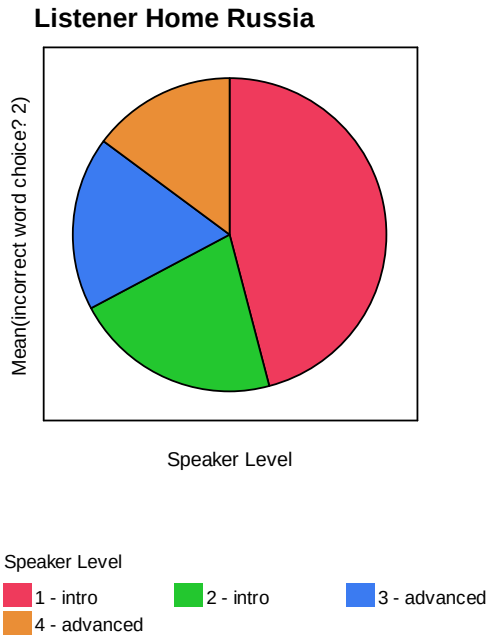

Speaker Level 3 - advanced
Mean(incorrect phrases? 2)
Listener Home
Listener Home
Russia
US

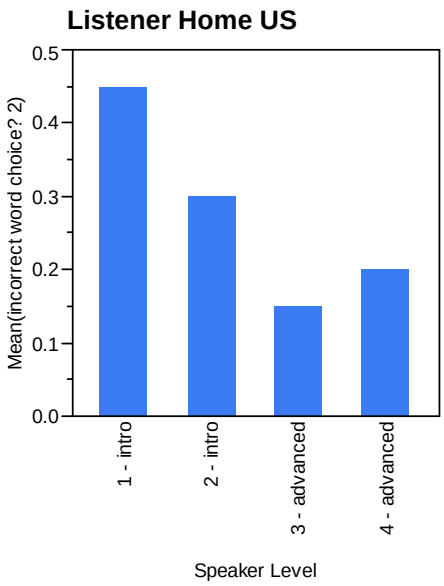


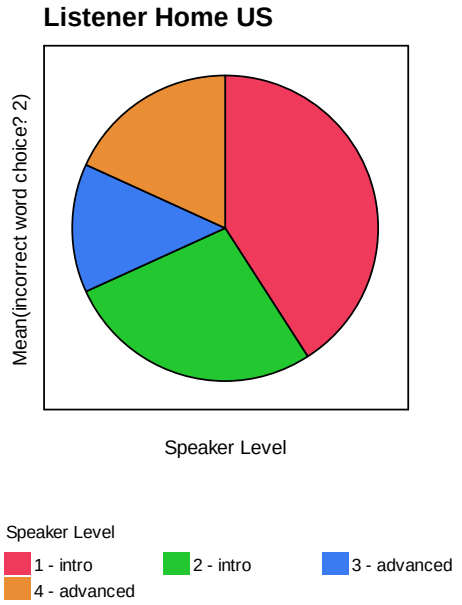


Russians in Russia and the US each had the greatest difficultly understanding Introductory Level 1 students who used incorrect Russian words.









Although Russians in Russia and the US had the same opinion about their ability to comprehend Introductory Level 1 speakers who used words incorrectly, listeners in the US had more difficulty comprehending Introductory Level 2 and Advanced Level 4 speakers who made word choice errors than did their counterparts. Russians in Russia, on the other hand, rated Advanced Level 3 speakers as more difficult to comprehend.

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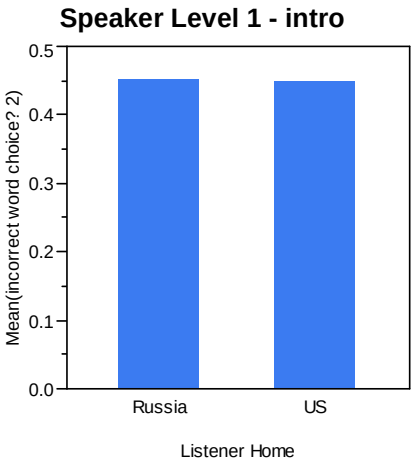
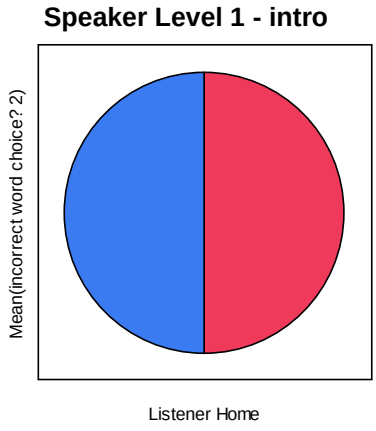
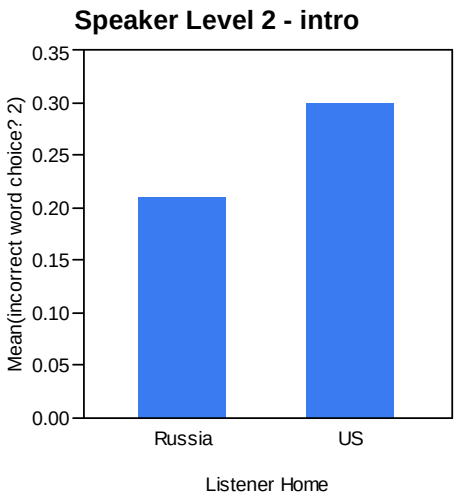
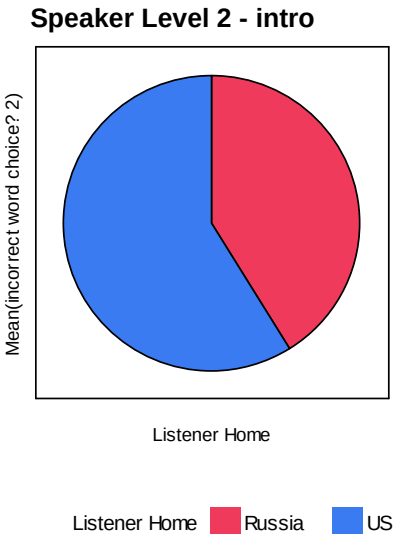
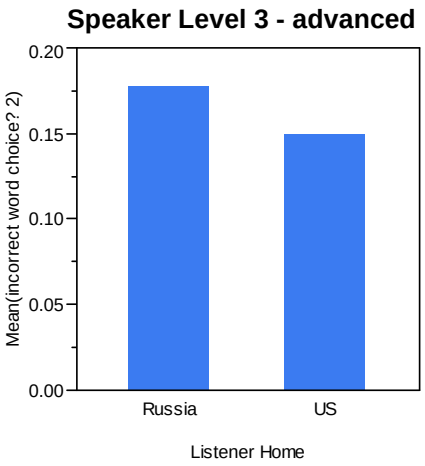
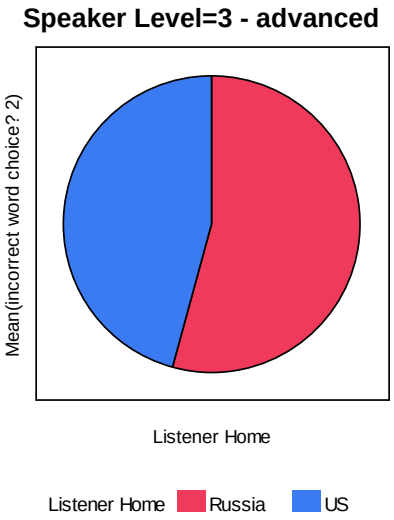


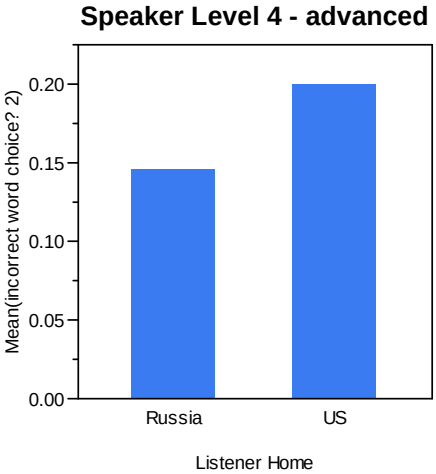


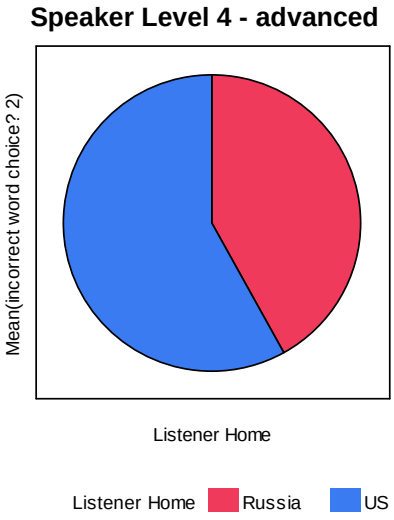

Speaker Level 2 - intro
Mean(incorrect word choice? 2)
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
Russia
US
Listener Home


Speaker Level 2 - intro
Mean(incorrect word choice? 2)
Listener Home
Listener Home
Russia
US

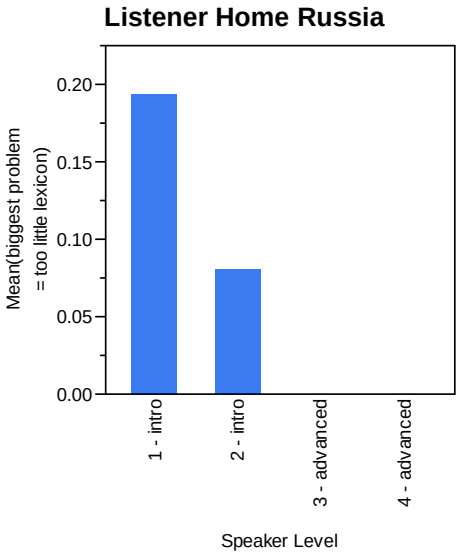

Speaker Level 3 - advanced
Mean(incorrect word choice? 2)
0.20
0.15
0.10
0.05
0.00
Russia
US
Listener Home

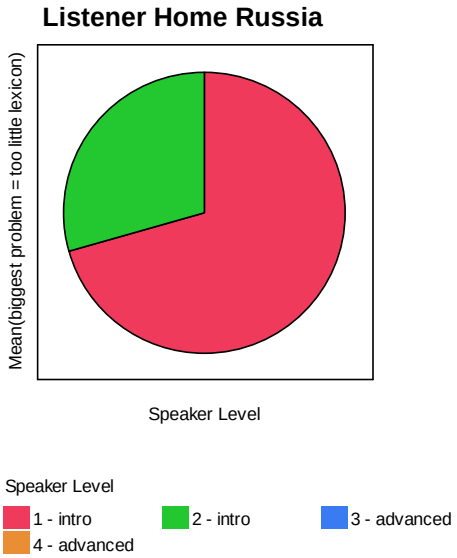

Speaker Level=3 - advanced
Mean(incorrect word choice? 2)
Listener Home
Listener Home
Russia
US

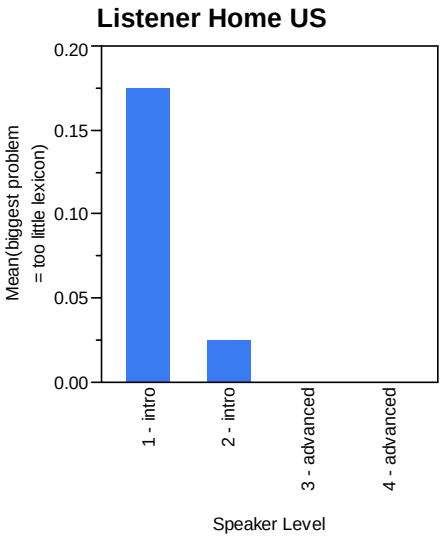

Speaker Level 4 - advanced
Mean(incorrect word choice? 2)
0.20
0.15
0.10
0.05
0.00
Russia
US
Listener Home

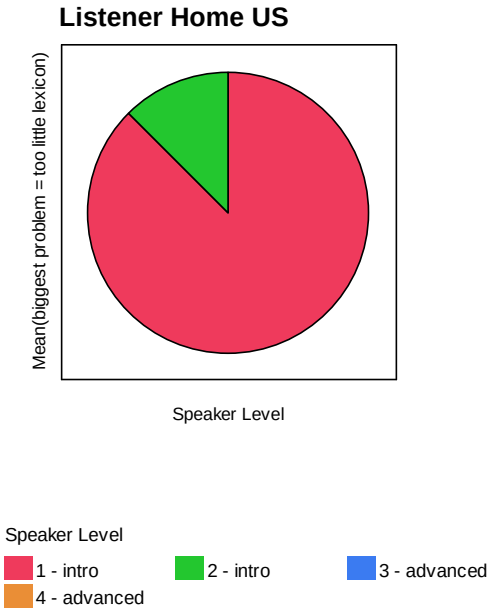

Speaker Level 4 - advanced
Mean(incorrect word choice? 2)
Listener Home
Listener Home
Russia
US

"Too little lexicon" caused the most L-1 incomprehension of Introductory Level 1 speakers for both Russians in Russia and in the US.

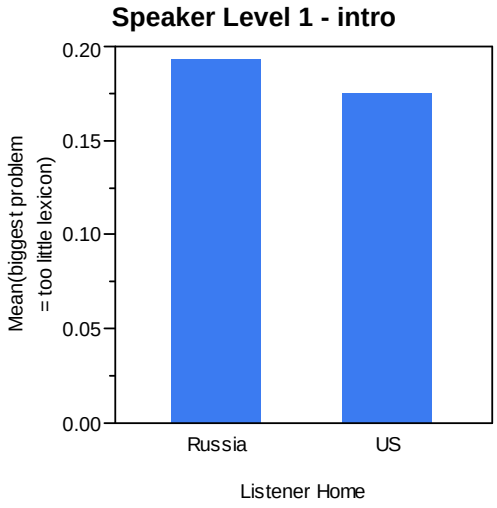


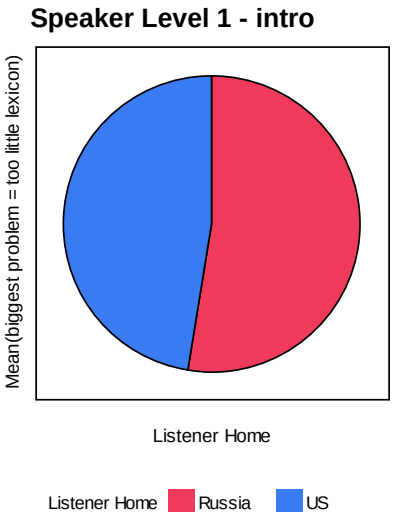


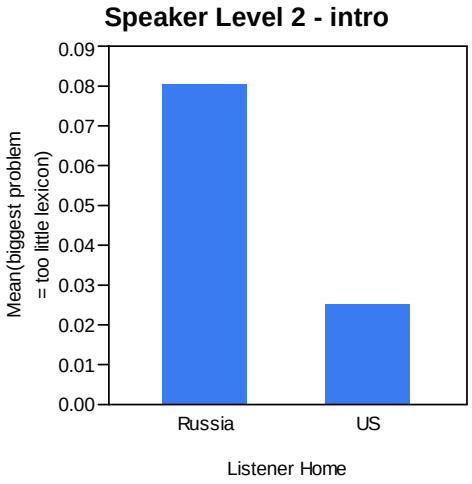


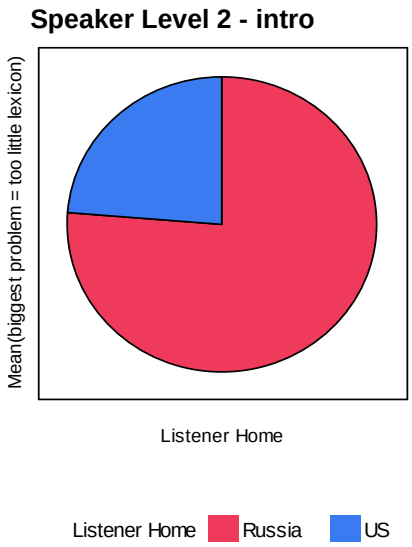


Although Introductory Level 1 and 2 speakers with too little L-2 lexicon impeded comprehension for both Russians in Russia and the US, Russians in Russia had more difficulty than their counterparts understanding speakers who exhibited this weakness.

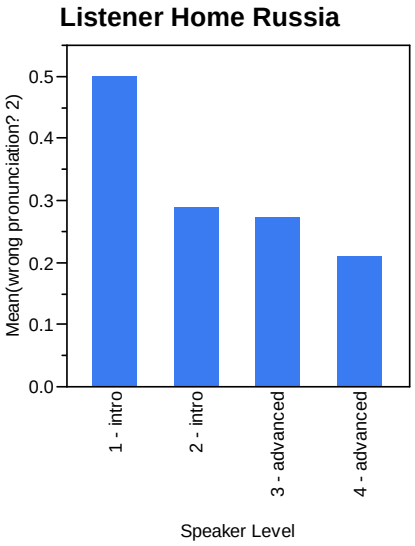


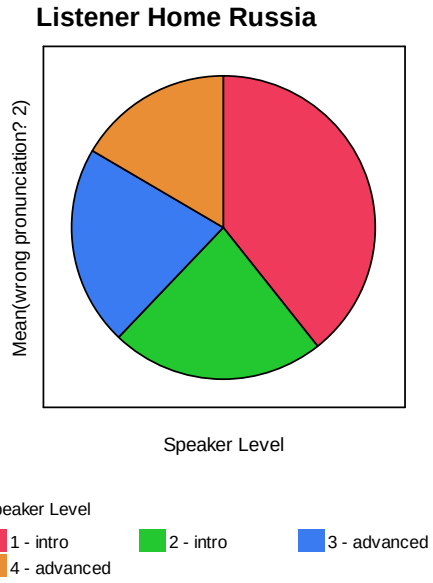


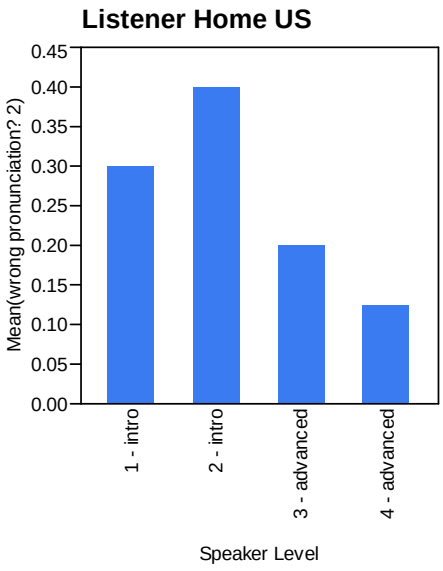


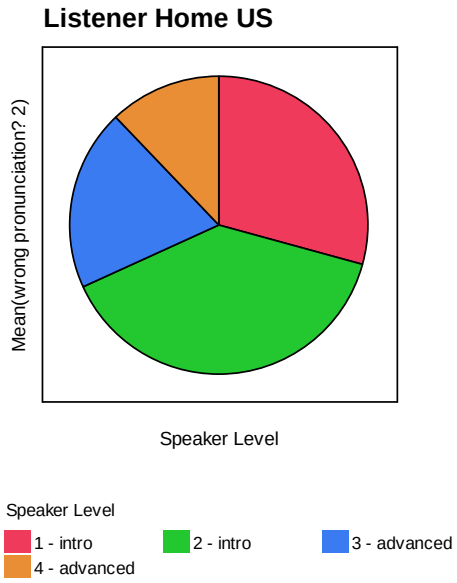


Introductory Level 1 speakers who used incorrect pronunciation hampered comprehension for Russians in Russia, while Russians in the US had the most difficulty comprehending Introductory Level 2 speakers who spoke with wrong pronunciation.

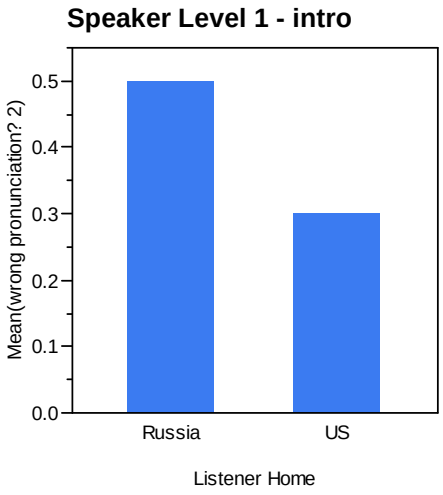


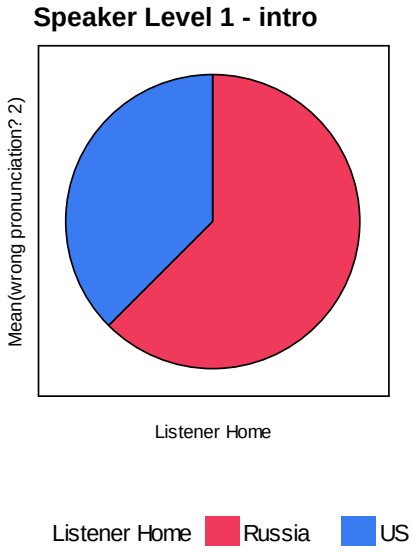


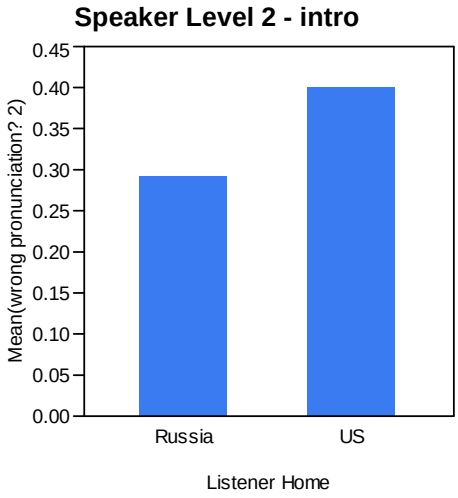


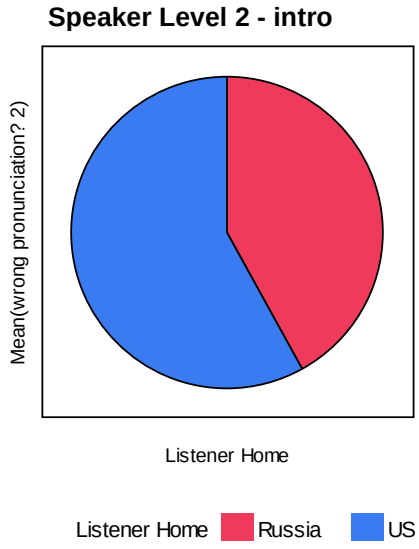


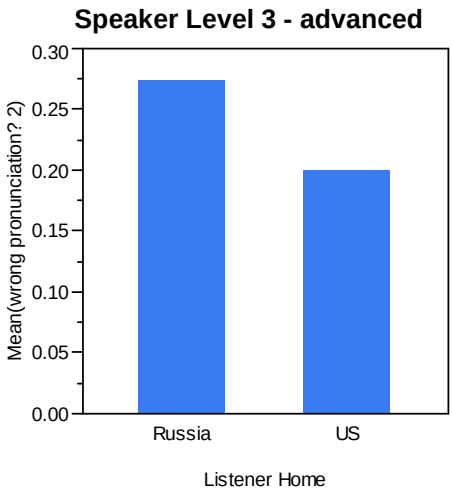
As the data below indicate, Introductory Level 1 speakers and Advanced Level 3 and 4 speakers who used incorrect L-2 pronunciation hampered the comprehension of Russians in Russia. However, incorrect pronunciation among Introductory Level 2 speakers resulted in more incomprehension for Russians in the US than for their counterparts.

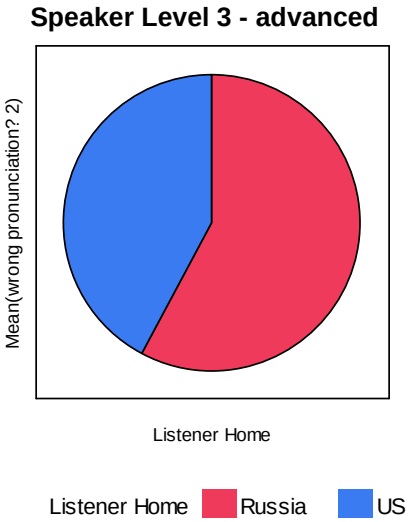


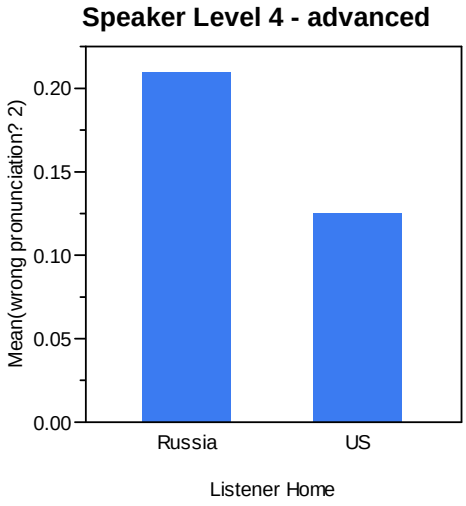


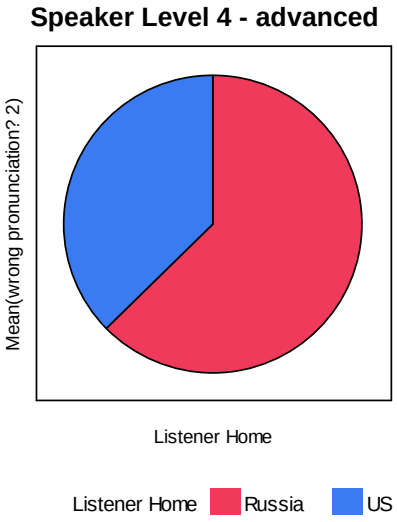






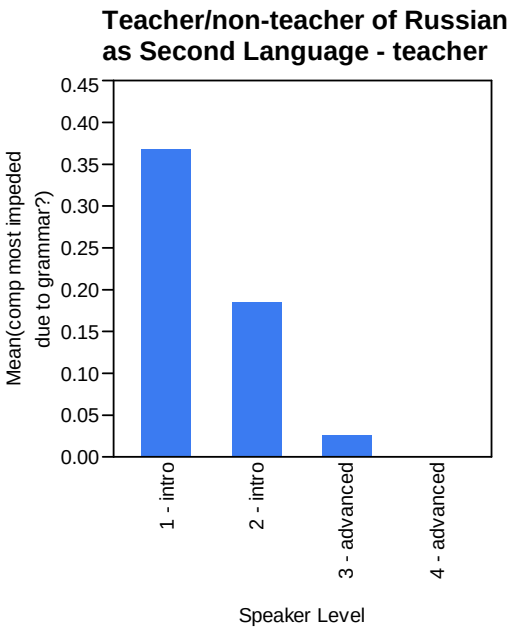


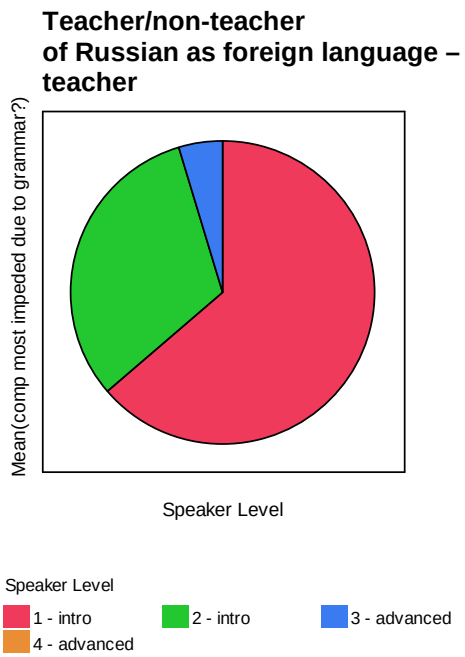


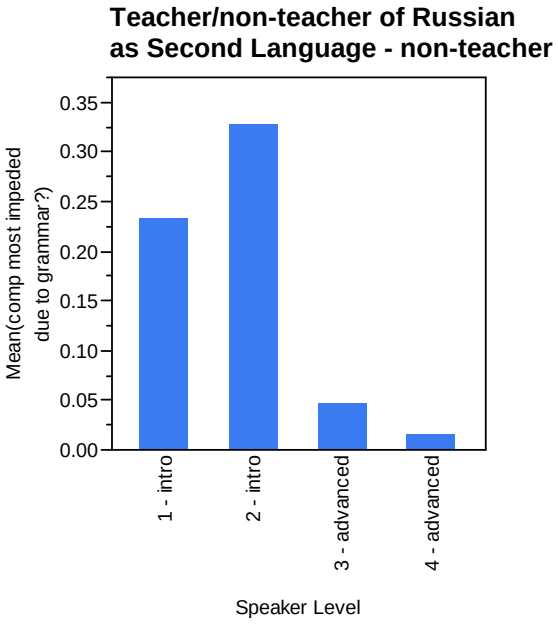


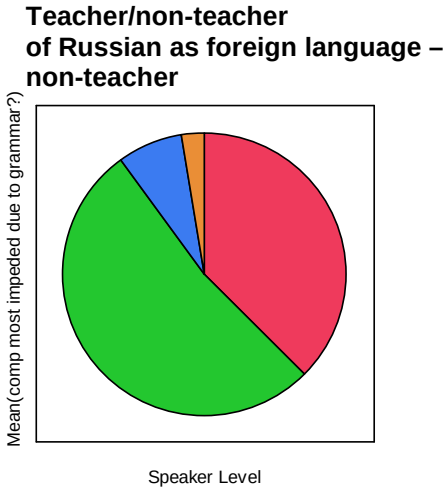
I now turn to analysis of the data provided by teachers and non-teachers of Russian as a Second Language to learn which speaker errors caused the most incomprehensibility for listeners in this group. I begin by exploring grammar errors made by speakers of different proficiency levels.

Teachers had the most difficulty understanding Introductory Level 1 speakers who used incorrect grammar, while non-teachers rated Introductory Level 2 speakers with grammar errors as the least comprehensible.

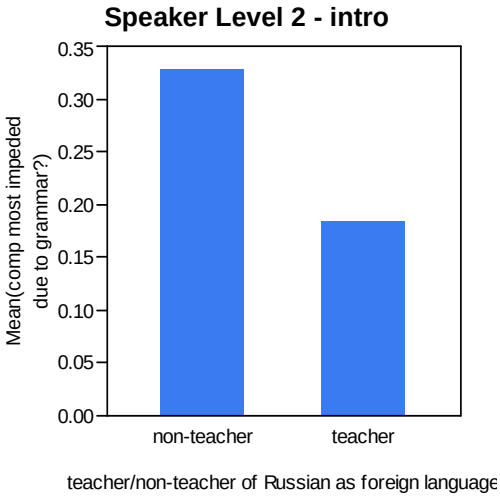

Teacher/non-teacher of Russian as Second Language - teacher
Mean(comp most impeded due to grammar?)
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
1 - intro
2 - intro
3 - advanced
4 - advanced
Speaker Level

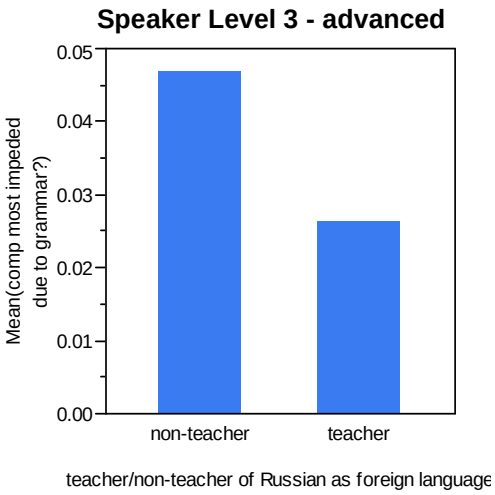

Teacher/non-teacher of Russian as foreign language – teacher
Mean(comp most impeded due to grammar?)
Speaker Level
Speaker Level
1 - intro
2 - intro
3 - advanced
4 - advanced


Teacher/non-teacher of Russian as Second Language - non-teacher
Mean(comp most impeded due to grammar?)
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
1 - intro
2 - intro
3 - advanced
4 - advanced
Speaker Level

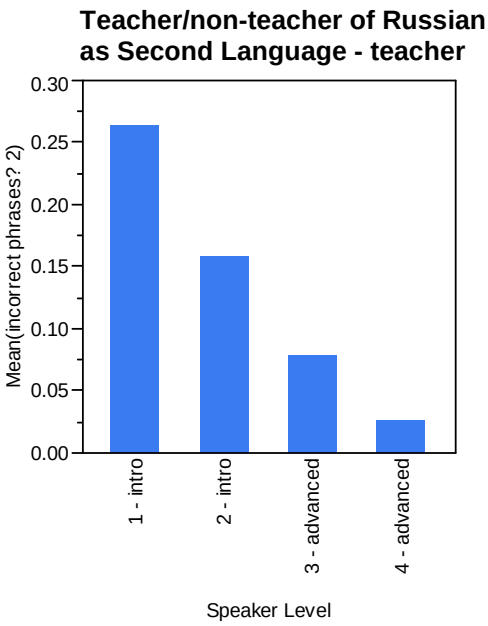

Teacher/non-teacher of Russian as foreign language – non-teacher
Mean(comp most impeded due to grammar?)
Speaker Level

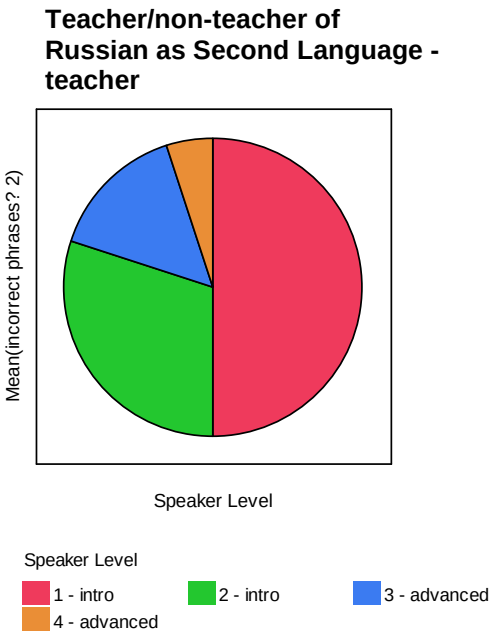
Teachers had more difficulty understanding Introductory Level 1 speakers who used incorrect grammar, while non-teachers had more difficulty comprehending L-2 speakers of all levels with incorrect grammar.

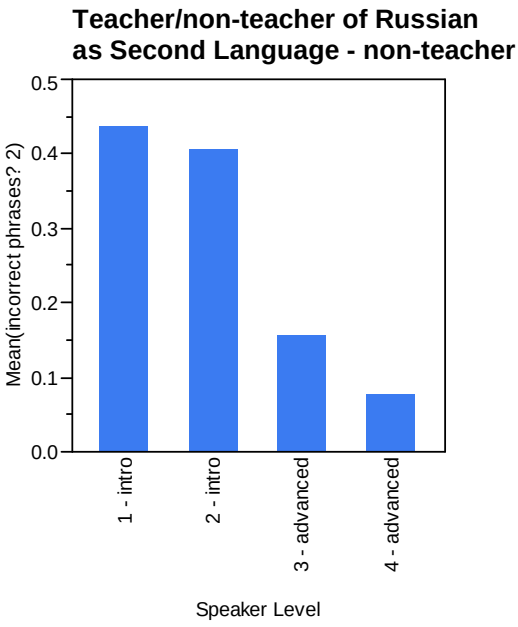


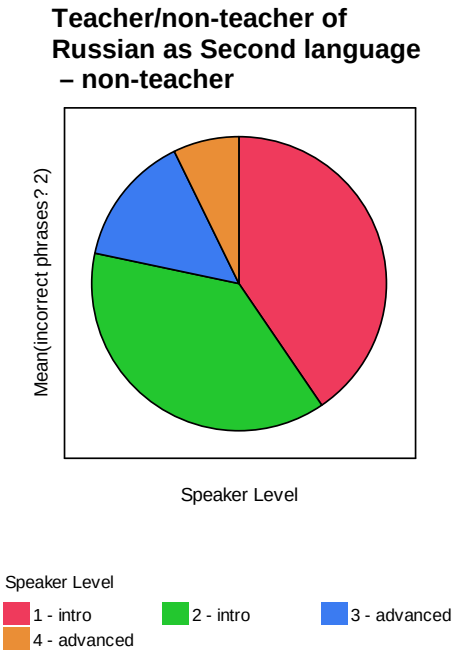


Both teachers and non-teachers had the greatest difficulty comprehending Introductory Level 1 speakers who used incorrectly structured L-2 phrases.









Non-teachers had more difficulty comprehending the incorrectly formed phrases used by L-2 speakers of all proficiency levels than did teachers.

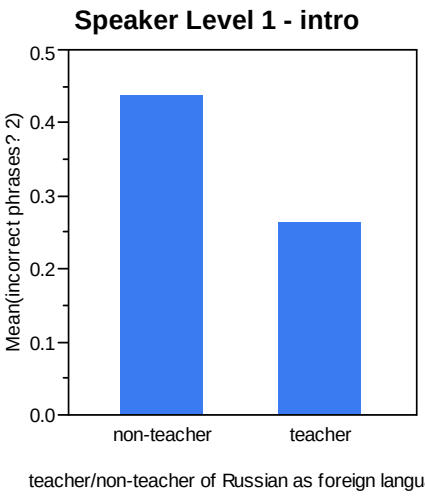
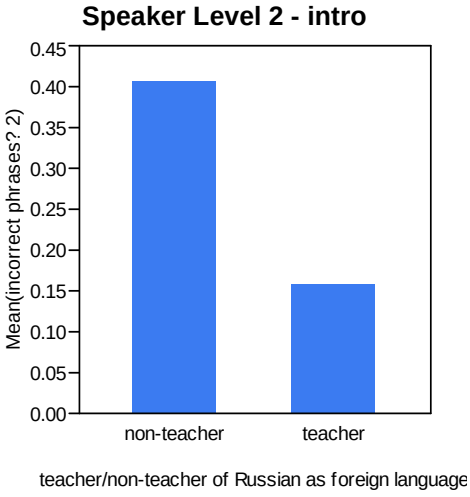

Speaker Level 1 - intro
Mean(incorrect phrases? 2)
0.5
0.4
0.3
0.2
0.1
0.0
non-teacher
teacher
teacher/non-teacher of Russian as foreign language

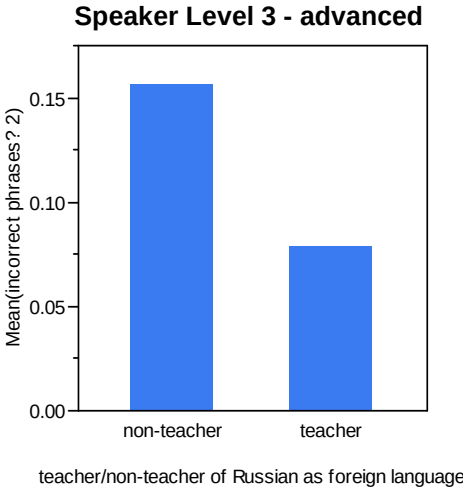

Chart Speaker Level 1 - intro
Mean(incorrect phrases? 2)
teacher/non-teacher of Russian as foreign language

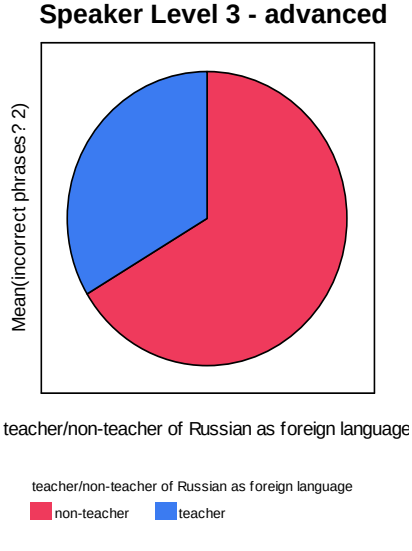
teacher/non-teacher of Russian as foreign language
non-teacher
teacher


Speaker Level 2 - intro
Mean(incorrect phrases? 2)
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
non-teacher
teacher
teacher/non-teacher of Russian as foreign language

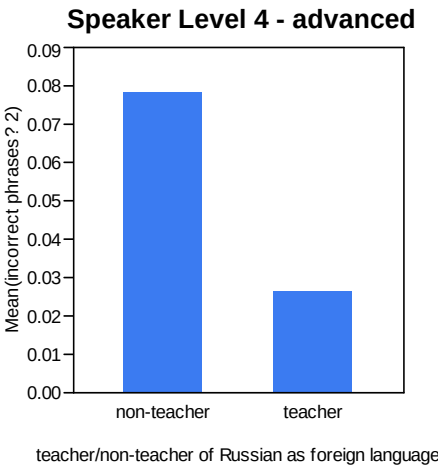

Speaker Level 2 - intro
Mean(incorrect phrases? 2)
teacher/non-teacher of Russian as foreign language

teacher/non-teacher of Russian as foreign language
non-teacher
teacher

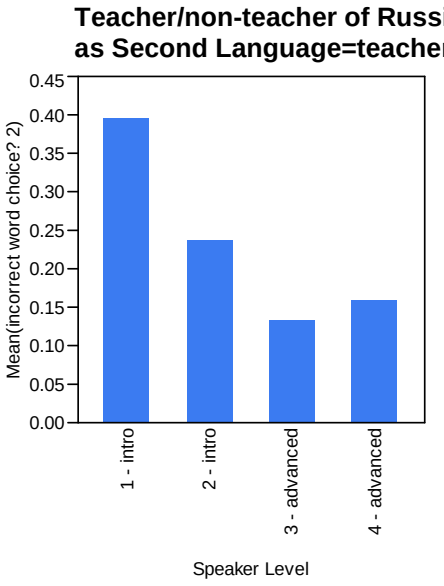

Speaker Level 3 - advanced
Mean(incorrect phrases? 2)
0.15
0.10
0.05
0.00
non-teacher
teacher
teacher/non-teacher of Russian as foreign language

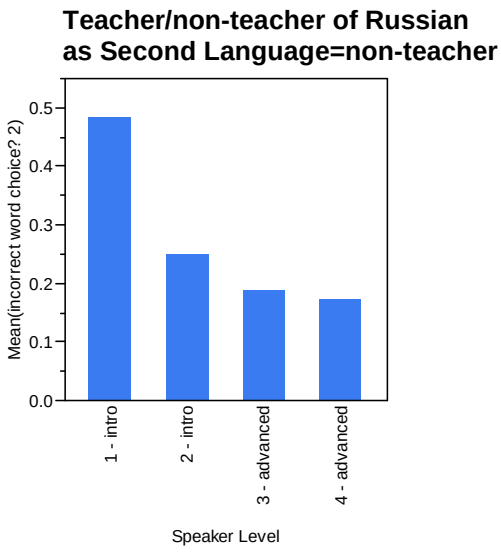

Speaker Level 3 - advanced
Mean(incorrect phrases? 2)
teacher/non-teacher of Russian as foreign language

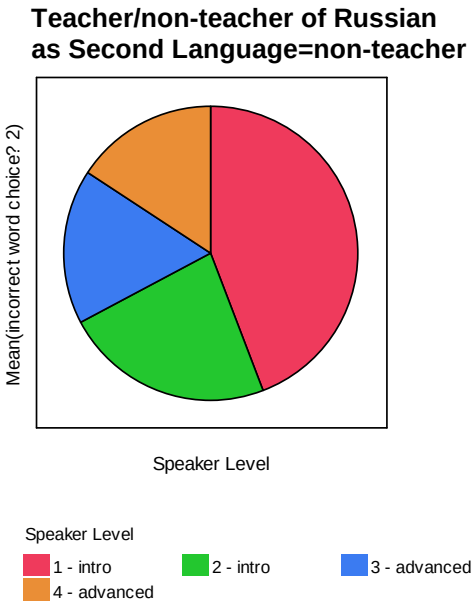
teacher/non-teacher of Russian as foreign language
non-teacher
teacher



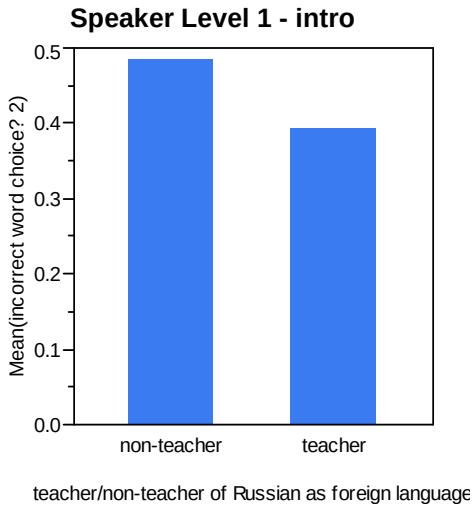
The incorrect use of words by L-2 speakers was an error that led to the highest degree of incomprehensibility of Introductory Level 1 speakers for both teachers and non-teachers of Russian as a Second Language.

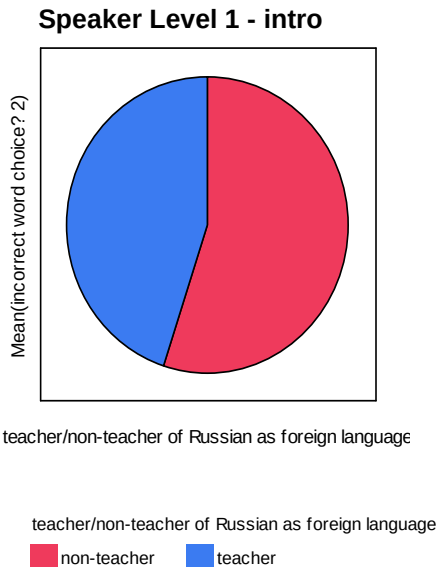


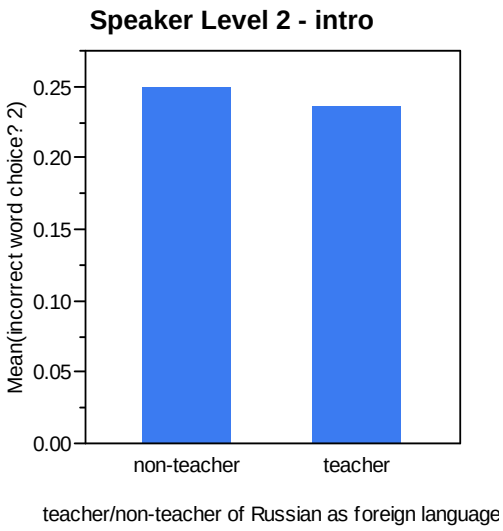




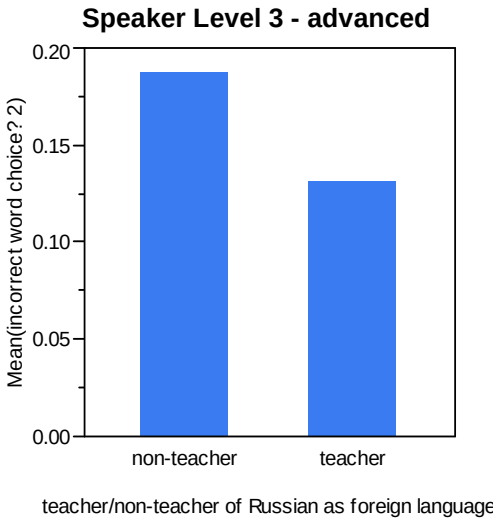
When comparing the ratings given by teachers and non-teachers to L-2 speakers who used words incorrectly one sees that non-teachers had more difficulty understanding speakers of all proficiency levels who made word choice errors than did their counterparts.



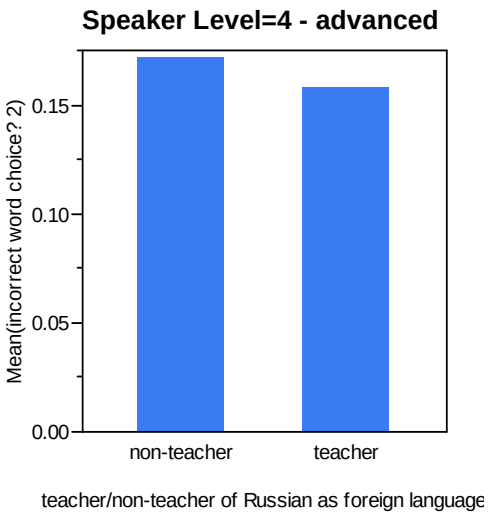



Speaker Level 2 - intro
Mean(incorrect word choice? 2)
0.25
0.20
0.15
0.10
0.05
0.00
non-teacher
teacher
teacher/non-teacher of Russian as foreign language

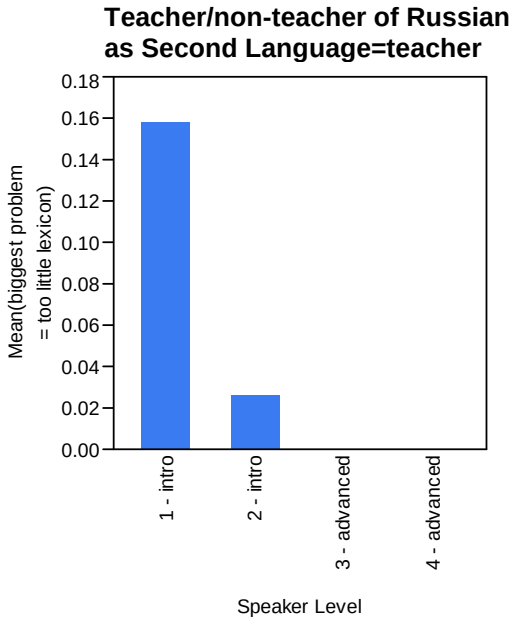

Speaker Level 2 - intro
Mean(incorrect word choice? 2)
teacher/non-teacher of Russian as foreign language
teacher/non-teacher of Russian as foreign language
non-teacher
teacher

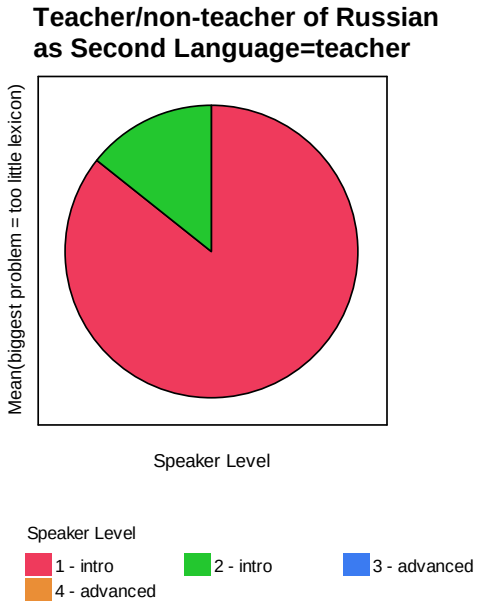

Speaker Level 3 - advanced
Mean(incorrect word choice? 2)
0.20
0.15
0.10
0.05
0.00
non-teacher
teacher
teacher/non-teacher of Russian as foreign language

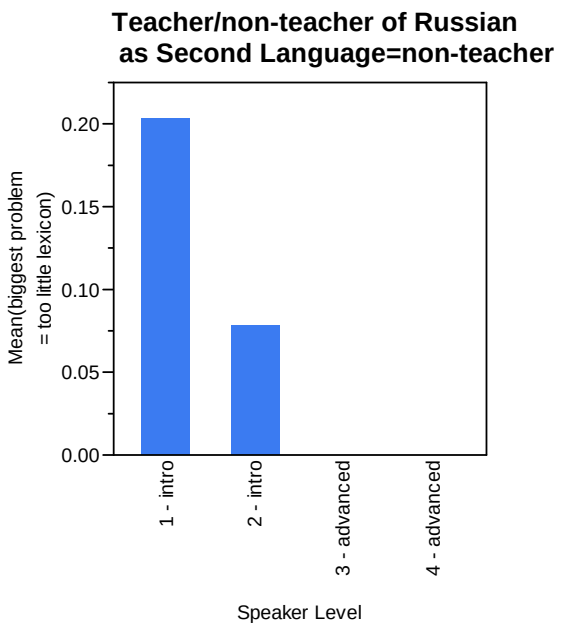

Speaker Level 3 - advanced
Mean(incorrect word choice? 2)
teacher/non-teacher of Russian as foreign language
teacher/non-teacher of Russian as foreign language
non-teacher
teacher



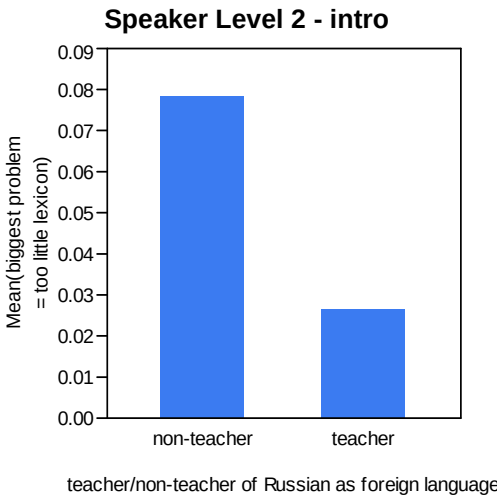
Both teachers and non-teachers alike considered too little lexicon as a source of incomprehension among introductory-level speakers. In particular, both listener groups thought that Introductory Level 1 speakers made more errors due to lack of lexicon than did Introductory Level 2 speakers.

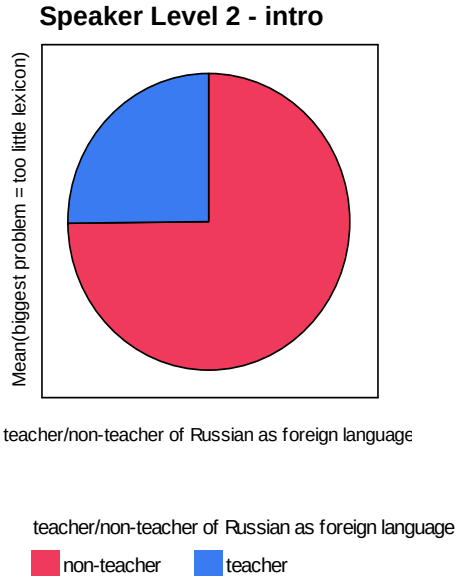




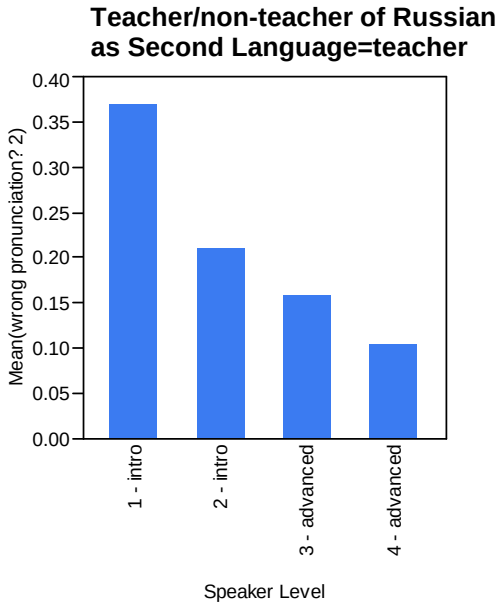


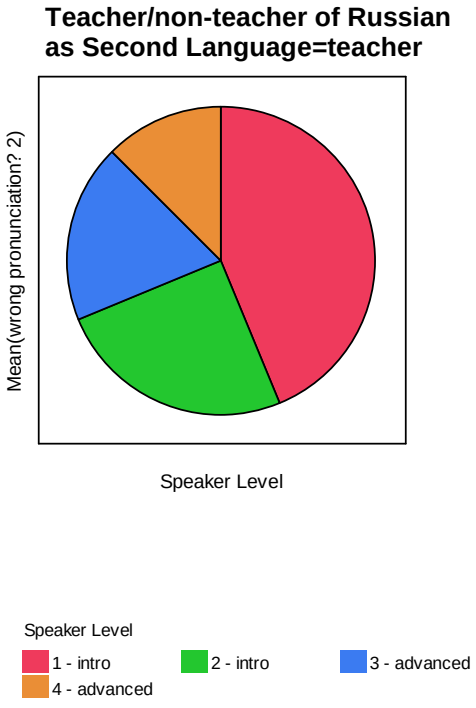
When comparing ratings given by teachers and non-teachers of incomprehension due to too little lexicon one sees that more non-teachers had more difficulty comprehending Introductory Level 1 and 2 L-2 speech than did teachers.

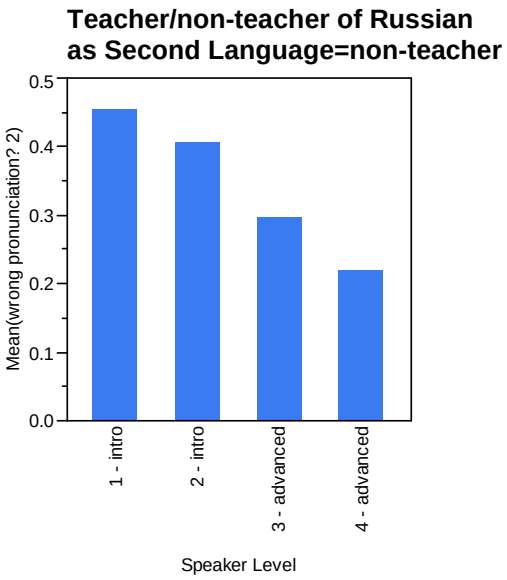


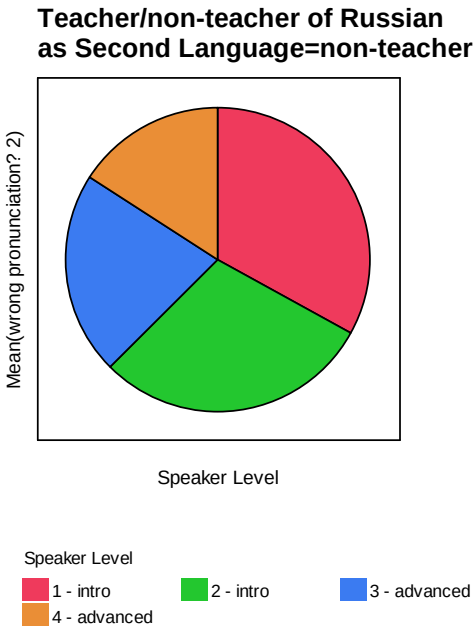


Regarding the assessment made by teachers of their ability to comprehend L-2 speech due to incorrect pronunciation, teachers and non-teachers alike had the most difficulty understanding Introductory Level 1 speakers who pronounced Russian words

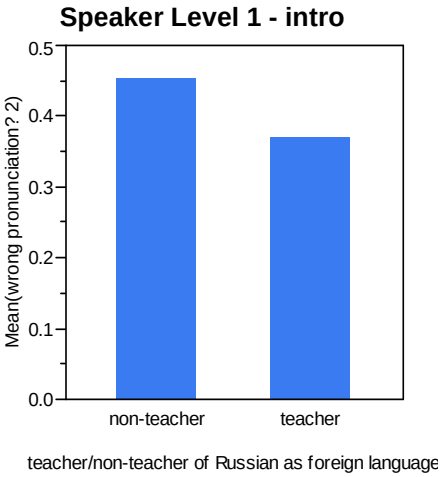


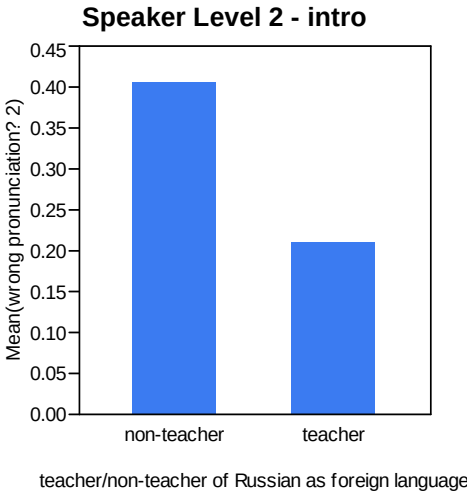


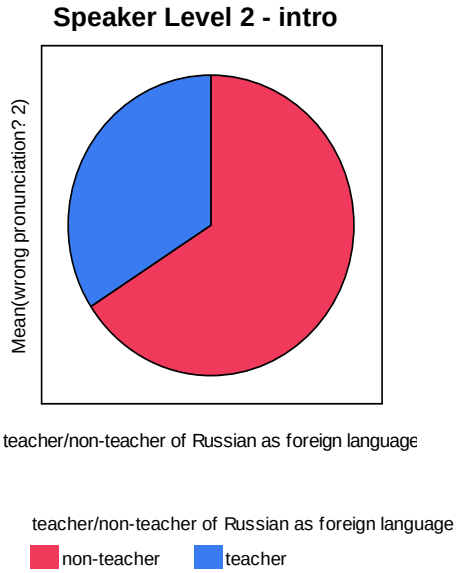


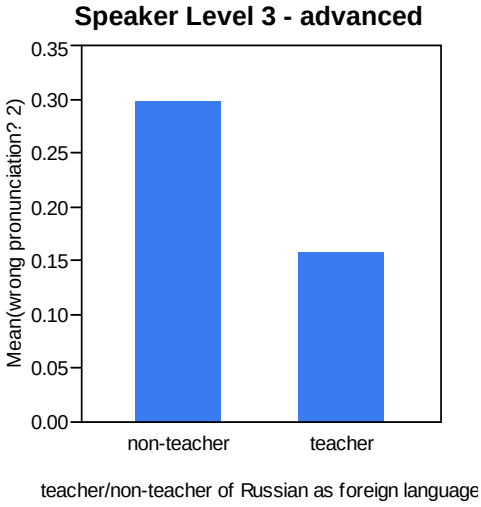


Incorrect pronunciation by L-2 speakers of all proficiency levels caused greater incomprehension for non-teachers of Russian as a Second Language than it did for teachers.

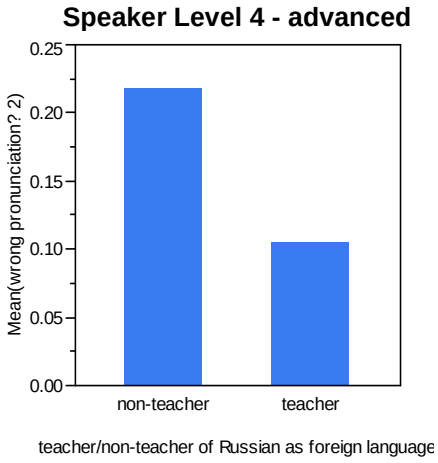



Speaker Level 2 - intro
Mean(wrong pronunciation? 2)
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
non-teacher
teacher
teacher/non-teacher of Russian as foreign language


Speaker Level 2 - intro
Mean(wrong pronunciation? 2)
teacher/non-teacher of Russian as foreign language
teacher/non-teacher of Russian as foreign language
non-teacher
teacher

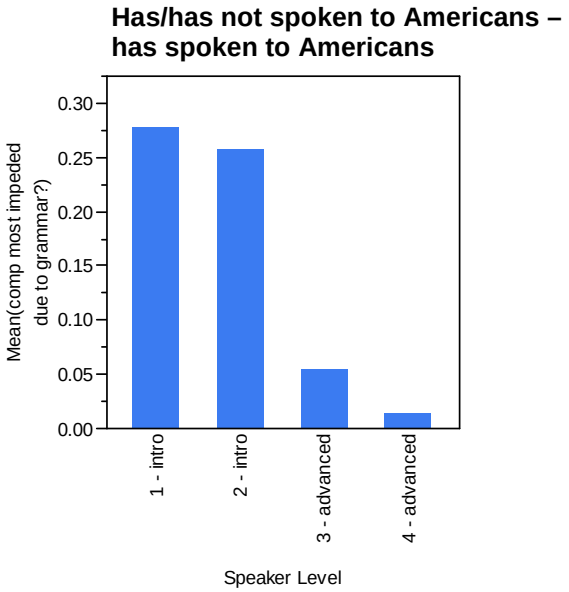

Speaker Level 3 - advanced
Mean(wrong pronunciation? 2)
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
non-teacher
teacher
teacher/non-teacher of Russian as foreign language

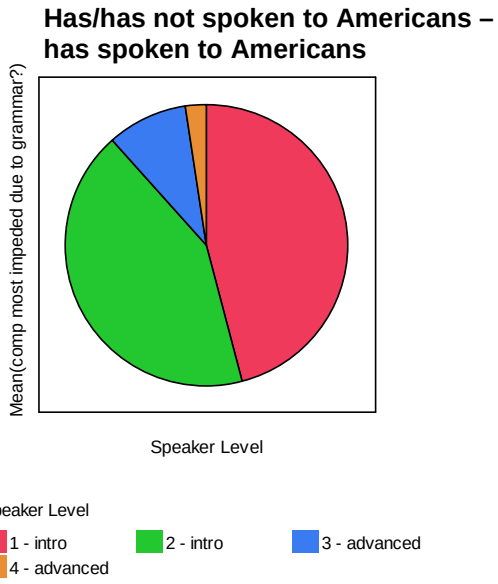

Speaker Level 3 - advanced
Mean(wrong pronunciation? 2)
teacher/non-teacher of Russian as foreign language
teacher/non-teacher of Russian as foreign language
non-teacher
teacher

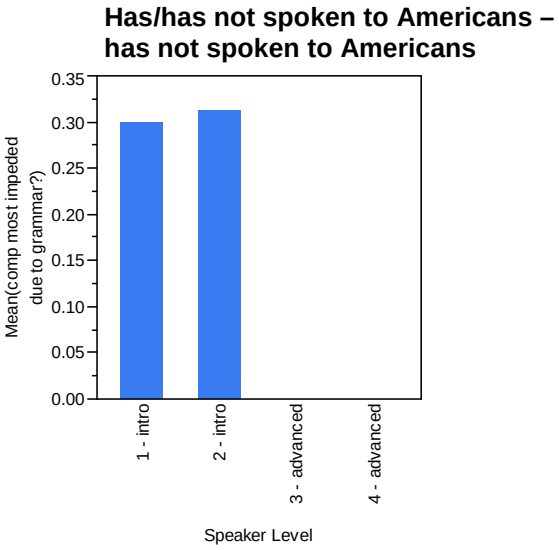


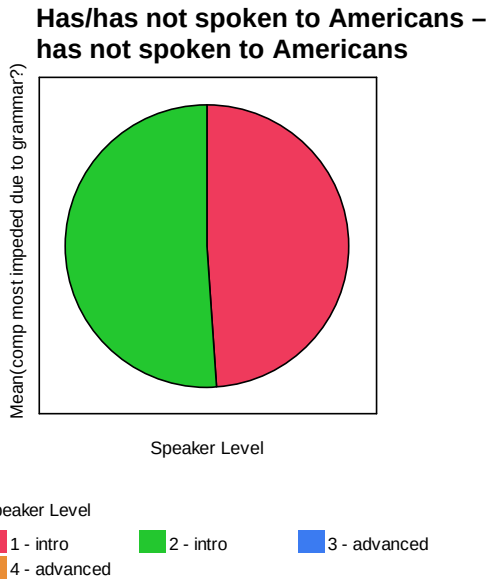
I now analyze data provided by Russians who have and have not had prior contact with Americans. I begin by examining the ratings given by listeners in both groups for whom comprehension was impeded due to incorrect use of Russian grammar by L-2 speakers.

Russians who have had prior contact with Americans had the most difficulty comprehending Introductory Level 1 speakers who used Russian grammar incorrectly, while Russians who have not spoken previously with Americans thought that Introductory Level 2 speakers who used grammar incorrectly were the most difficult to comprehend.

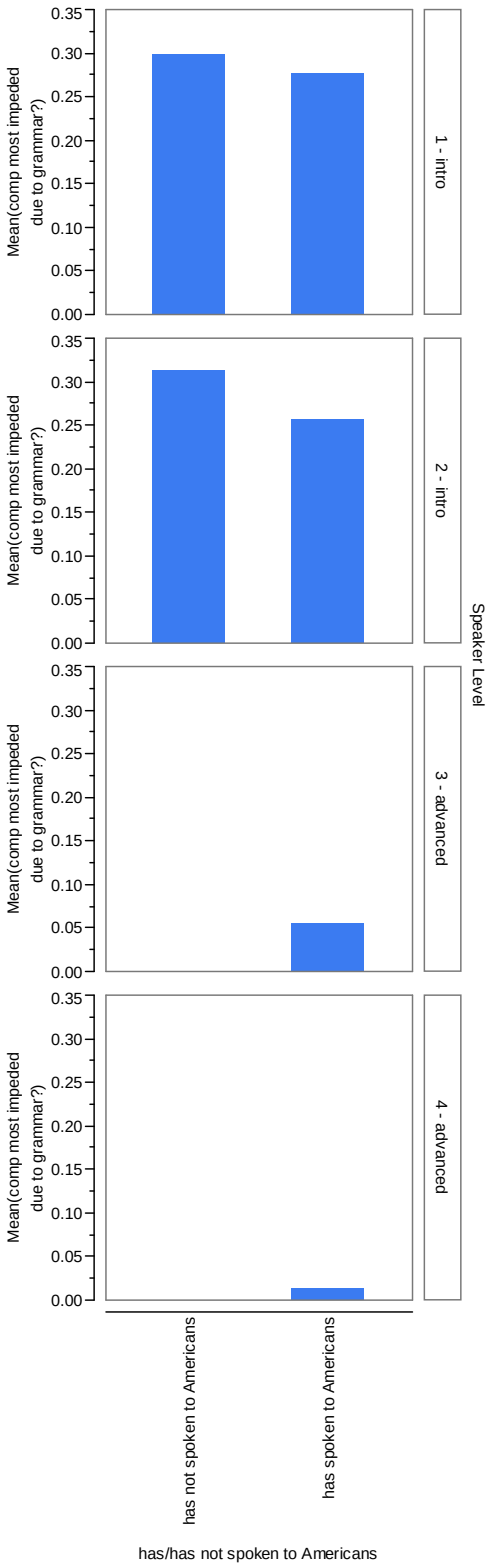


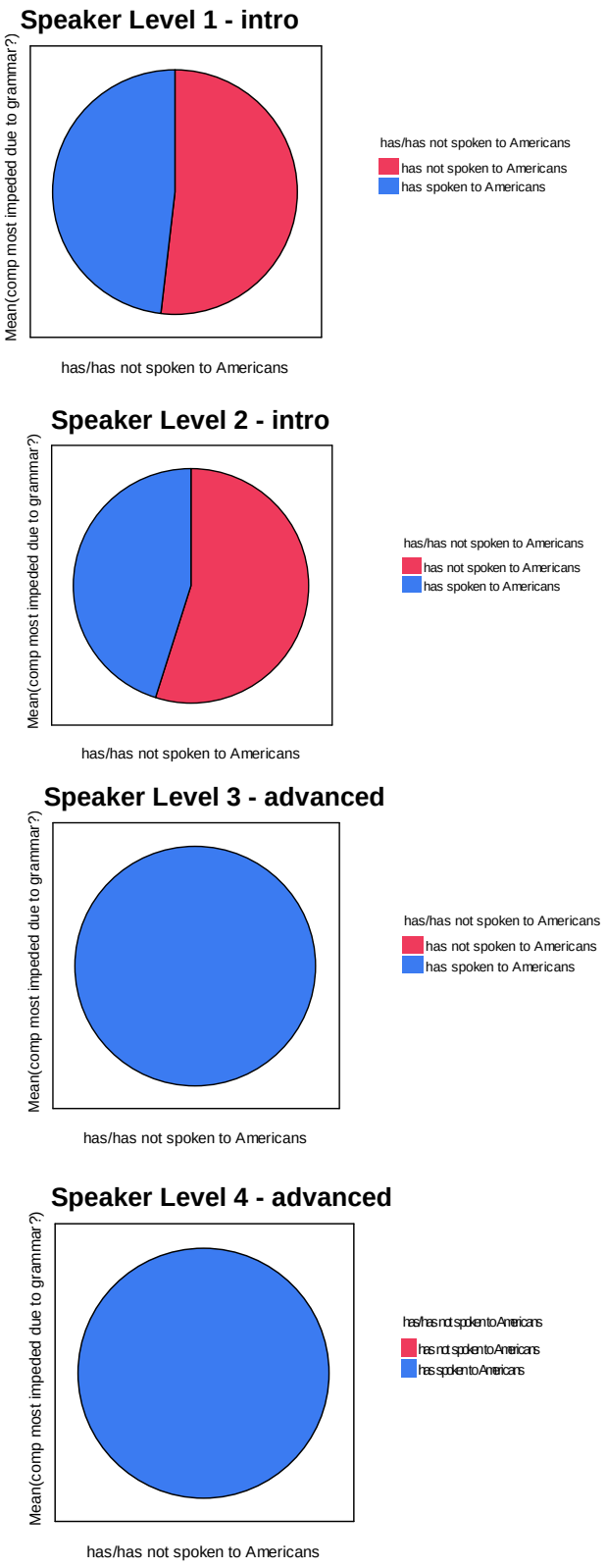




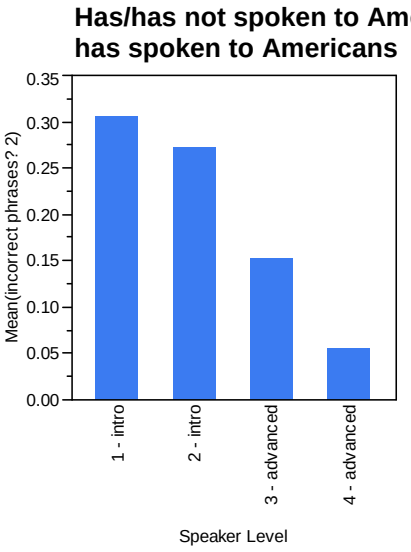


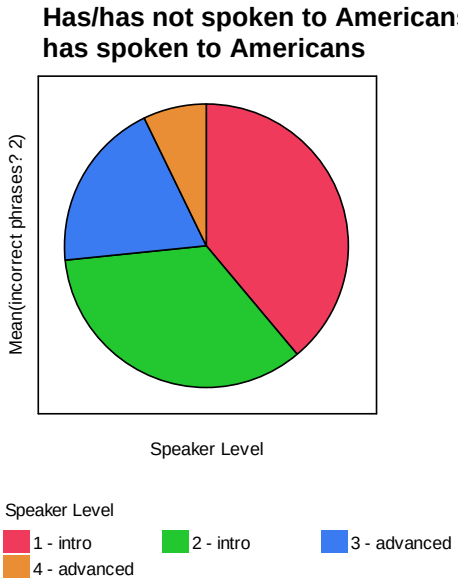
By comparing the data provided by Russians who have and have not had prior contact with Americans and L-2 grammar errors one sees that the former had the greatest difficulty comprehending grammar errors made by advanced-level learners. Alternatively, Russians who not had prior contact with Americans found it more difficult to comprehend errors made by introductory-level learners.

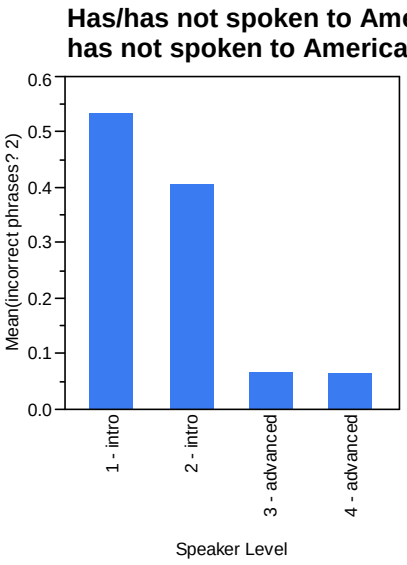

Mean(comp most impeded due to grammar?)
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
1 - intro
2 - intro
3 - advanced
4 - advanced
Speaker Level
has not spoken to Americans
has spoken to Americans
has/has not spoken to Americans

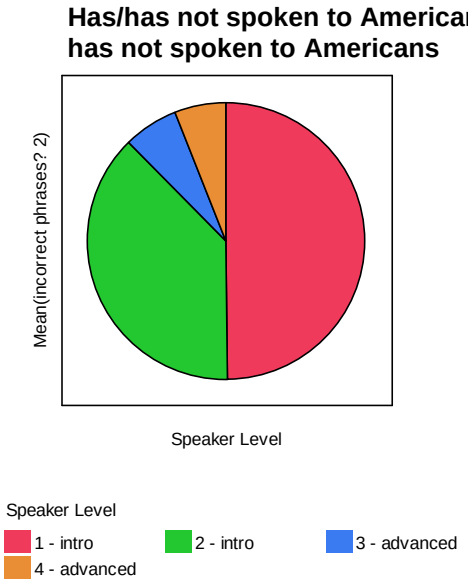

Speaker Level 1 - intro
Speaker Level 2 - intro
Speaker Level 3 - advanced
Speaker Level 4 - advanced
Mean(comp most impeded due to grammar?)
has/has not spoken to Americans
has not spoken to Americans
has spoken to Americans

Listeners who have and have not previously spoken to Americans had equal difficulty comprehending Introductory Level 1 listeners who used incorrectly formed Russian phrases.

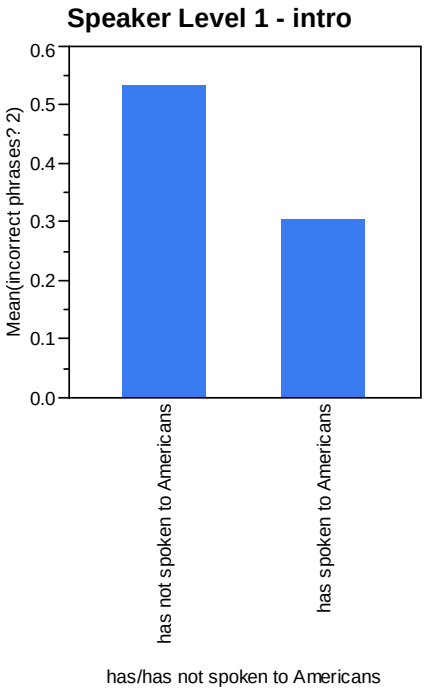


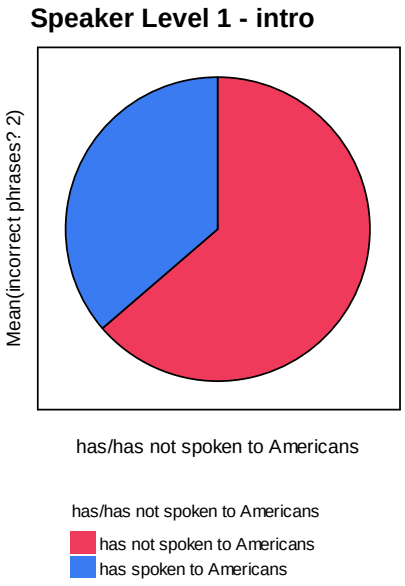


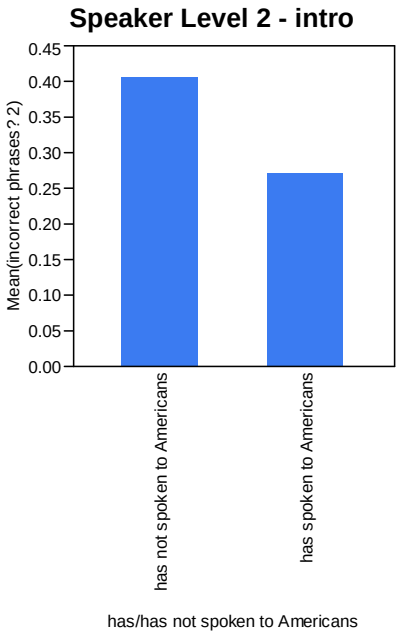


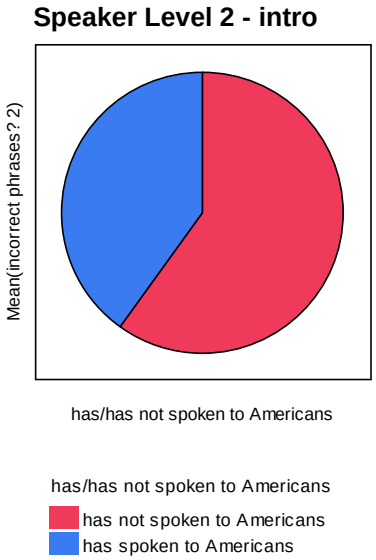


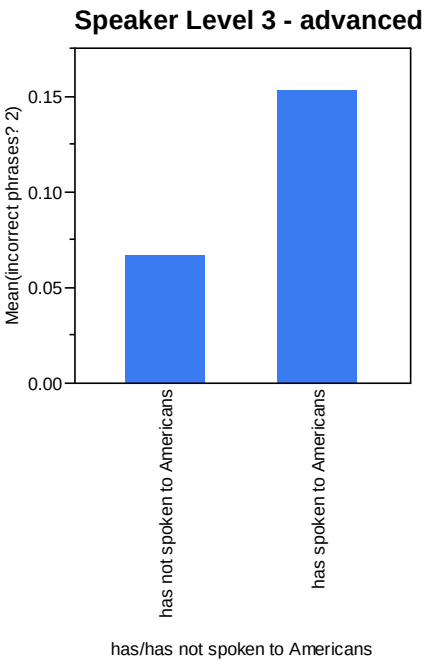
L-1 listener comprehension of L-2 speakers who used incorrectly formed Russian phrases varied depending on listener category. Russians who have had prior contact with Americans, for example, had greater difficulty comprehending incorrectly formed phrases produced by Advanced Level 3 learners, while Russians who have not spoken previously with Americans found introductory-level speakers and Advanced Level 4 speakers with phrasal errors harder to comprehend.

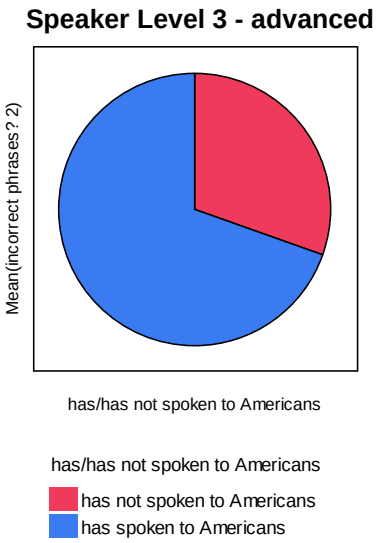


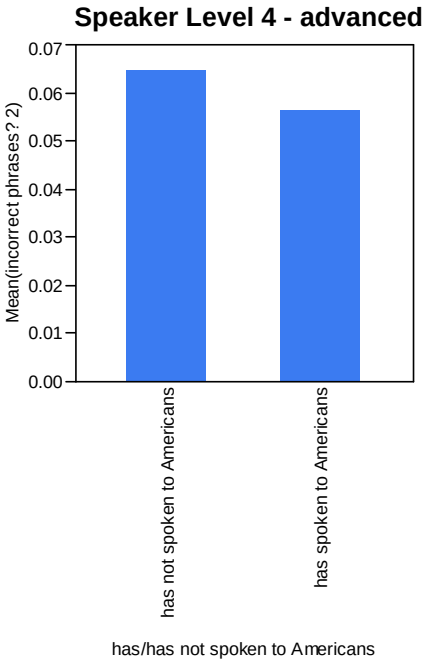


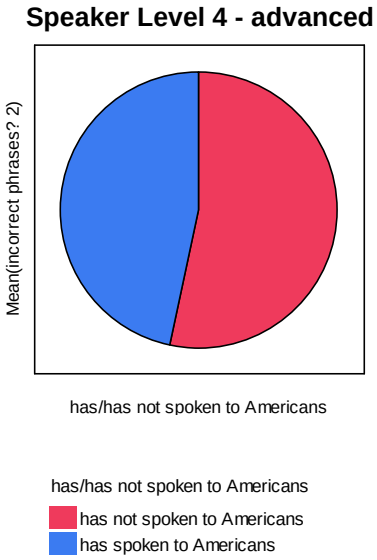




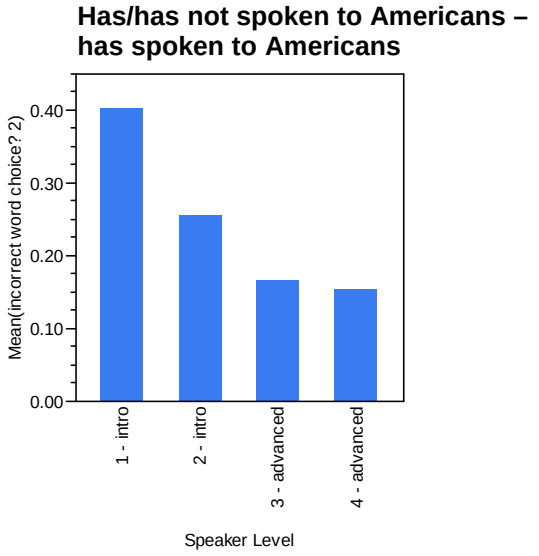

Speaker Level 3 - advanced
Mean(incorrect phrases? 2)
0.15
0.10
0.05
0.00
has not spoken to Americans
has spoken to Americans
has/has not spoken to Americans

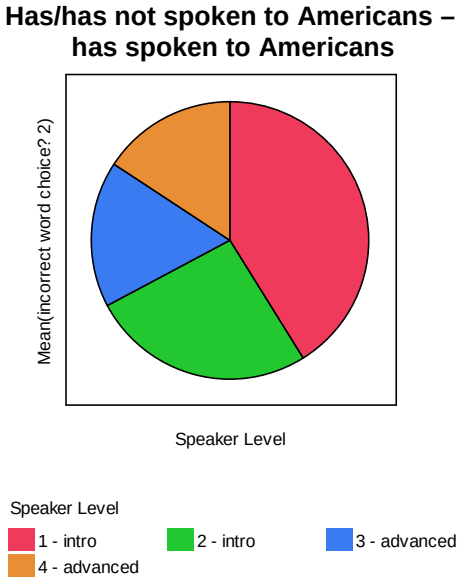

Speaker Level 3 - advanced
Mean(incorrect phrases? 2)
has/has not spoken to Americans
has/has not spoken to Americans
has not spoken to Americans
has spoken to Americans

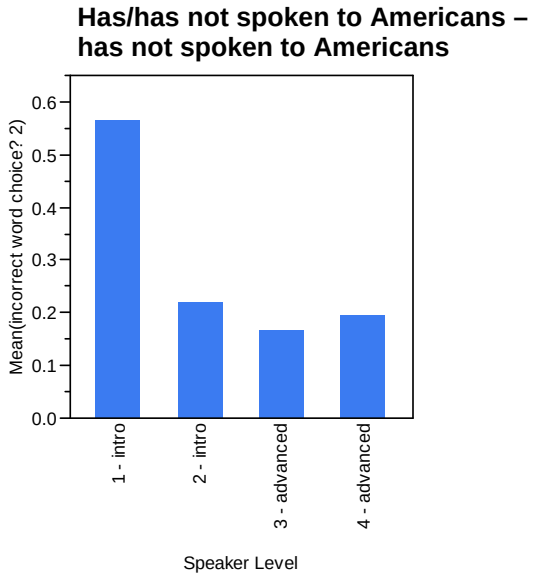

Speaker Level 4 - advanced
Mean(incorrect phrases? 2)
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0.00
has not spoken to Americans
has spoken to Americans
has/has not spoken to Americans

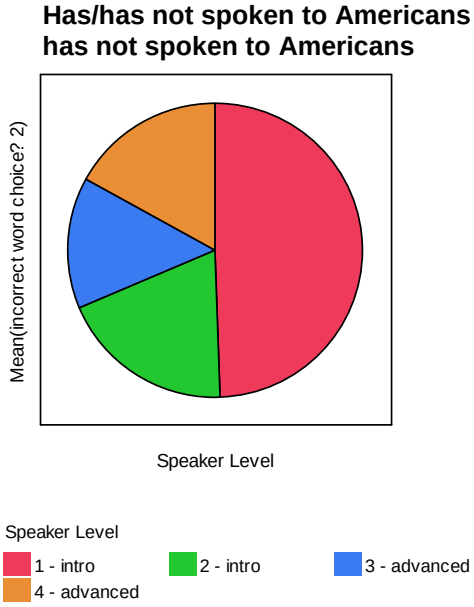

Speaker Level 4 - advanced
Mean(incorrect phrases? 2)
has/has not spoken to Americans
has/has not spoken to Americans
has not spoken to Americans
has spoken to Americans

Incorrect word choice by Introductory Level 1 speakers caused the greatest amount of incomprehension among for Russians who have and have not had prior contact with Americans.

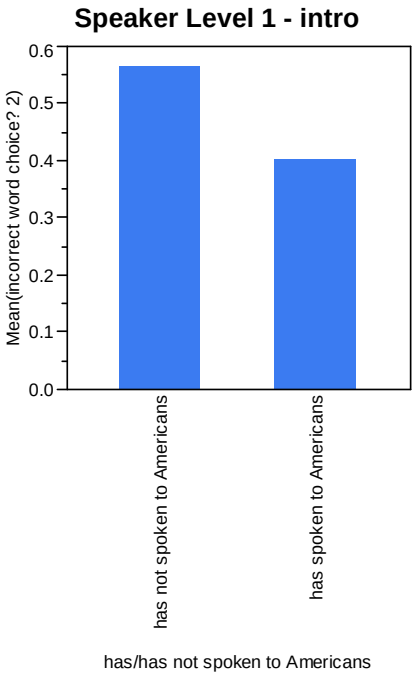


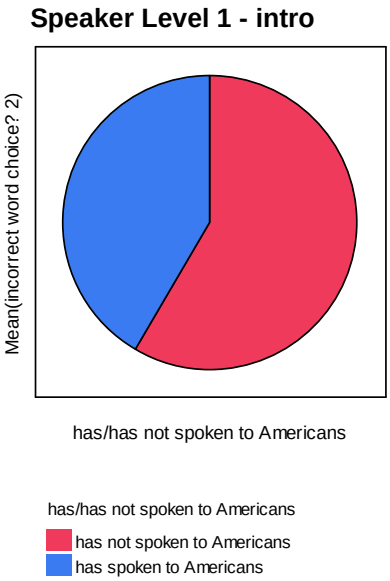


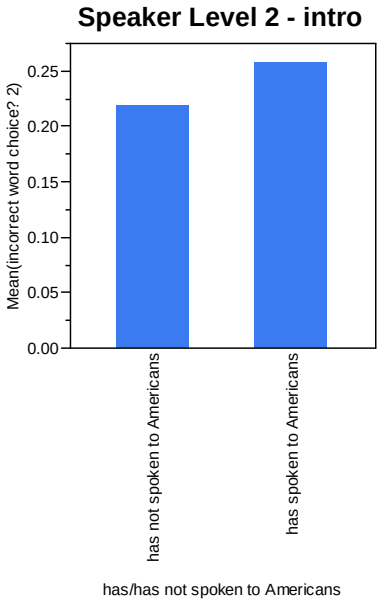


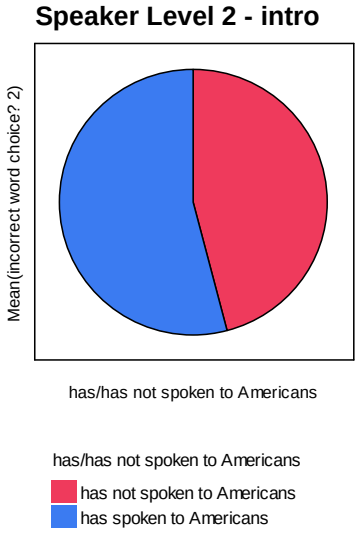


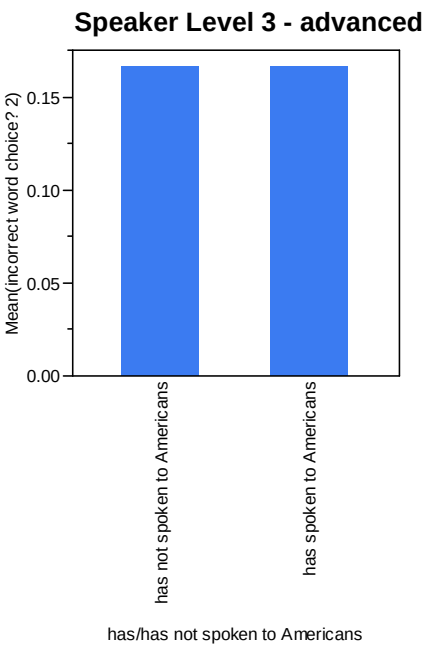
For Russians who have had prior contact with Americans incorrect word choice hampered their comprehension the most when listening to Introductory Level 2 speakers. Conversely, for Russians who have not spoken previously with Americans word choice errors hindered their comprehension of Introductory Level 1 and Advanced Level 4 speakers. Both groups of listeners had equal difficulty comprehending Advanced Level 3 speakers who made L-2 word choice errors.

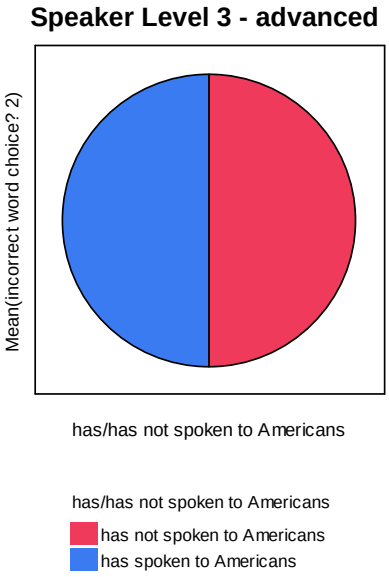


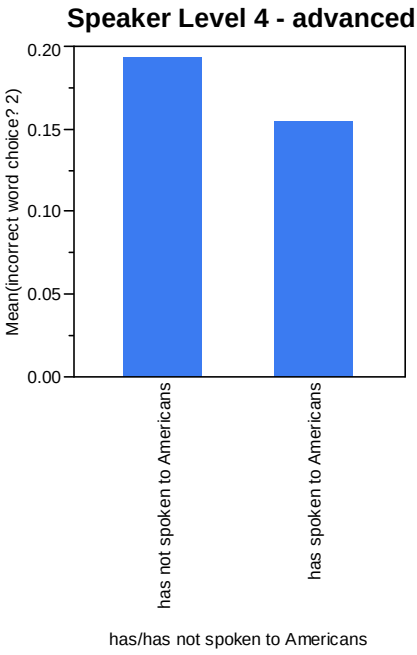


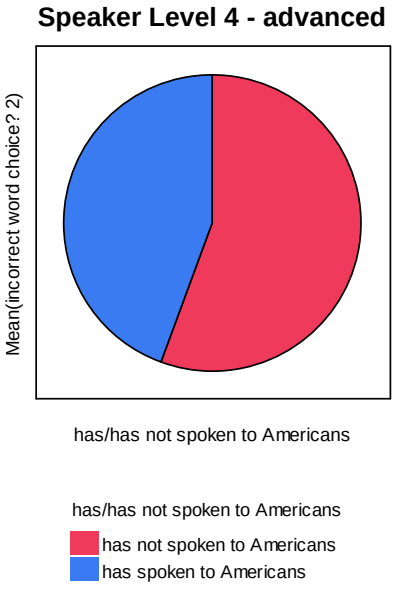




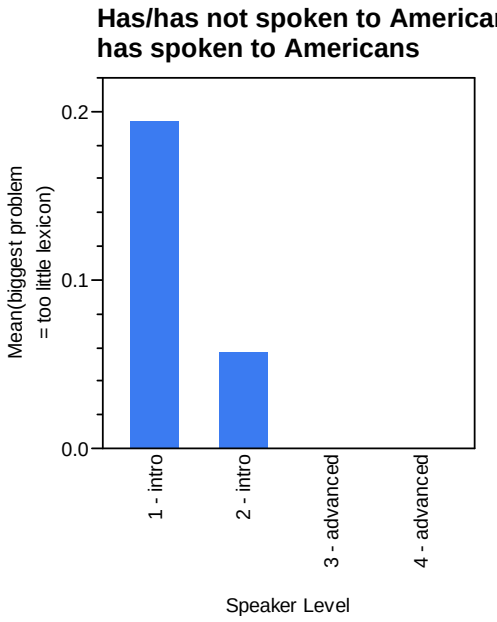

Speaker Level 3 - advanced
Mean(incorrect word choice? 2)
0.15
0.10
0.05
0.00
has not spoken to Americans
has spoken to Americans
has/has not spoken to Americans

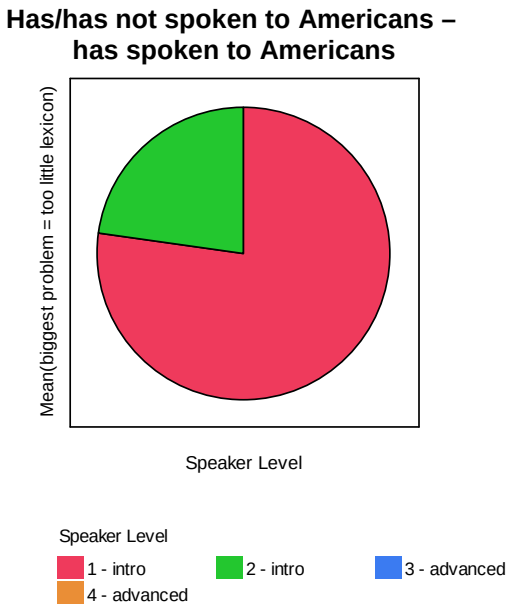

Speaker Level 3 - advanced
Mean(incorrect word choice? 2)
has/has not spoken to Americans
has/has not spoken to Americans
has not spoken to Americans
has spoken to Americans

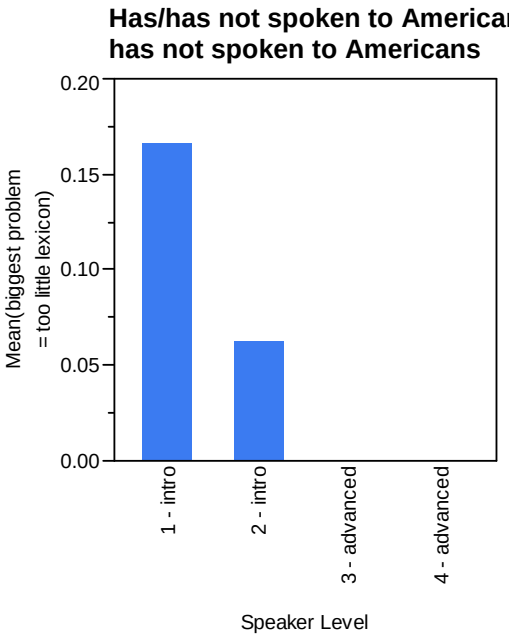

Speaker Level 4 - advanced
Mean(incorrect word choice? 2)
0.20
0.15
0.10
0.05
0.00
has not spoken to Americans
has spoken to Americans
has/has not spoken to Americans

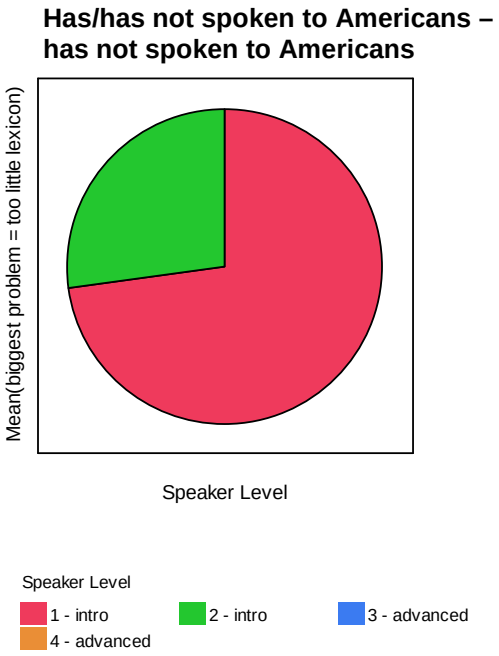

Speaker Level 4 - advanced
Mean(incorrect word choice? 2)
has/has not spoken to Americans
has/has not spoken to Americans
has not spoken to Americans
has spoken to Americans

Errors caused by too little lexicon resulted in incomprehension for Russian listeners of only Introductory Level 1 and 2 speakers. In addition, both Russians who have and have not spoken previously to Americans had the greatest difficulty comprehending the speech of Introductory Level 1 learners who were lacking sufficient Russian lexicon.

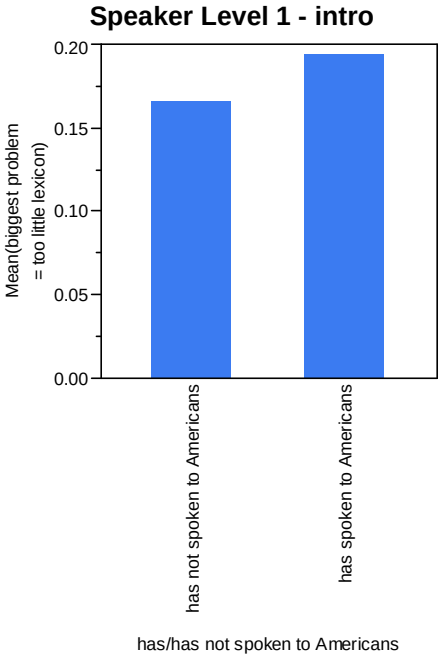


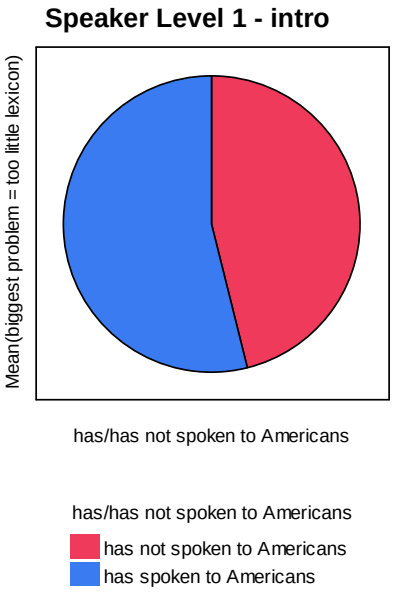


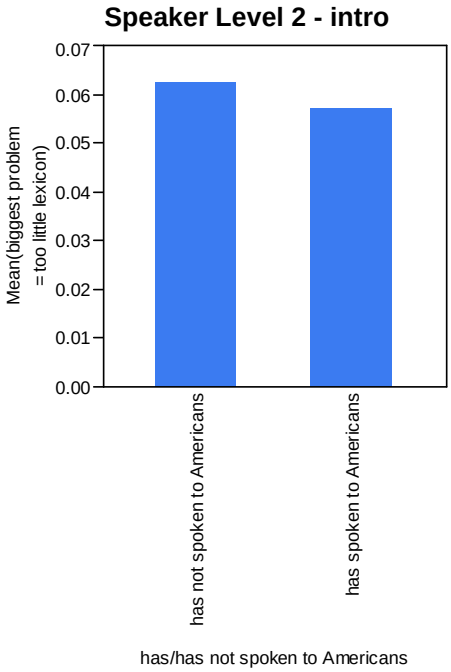


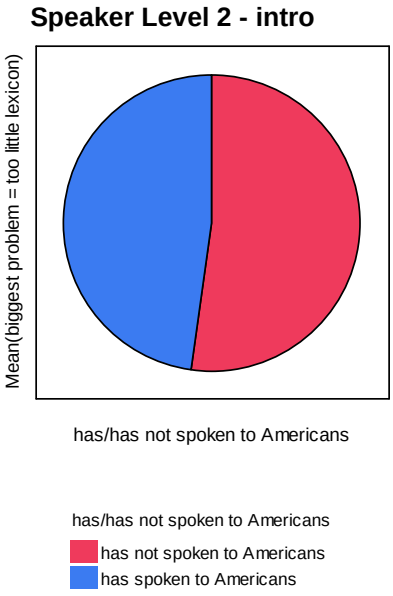


Russians who have had prior contact with Americans had more difficulty comprehending Introductory Level 1 speakers who used incorrect lexicon than did their counterparts. However, the opposite was true for Russians who have not had prior contact with Americans – those listeners found that lack of sufficient Russian lexicon hindered their comprehension of Introductory Level 2 speakers.

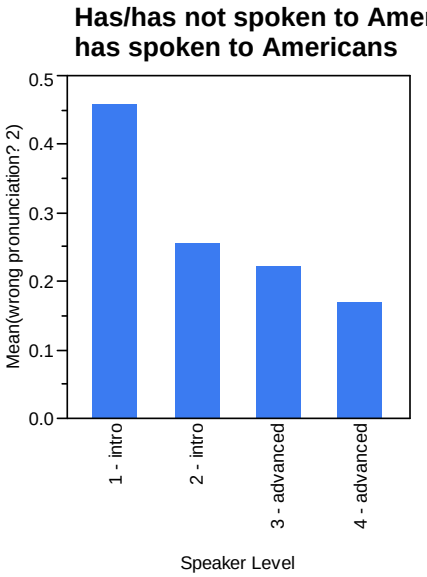


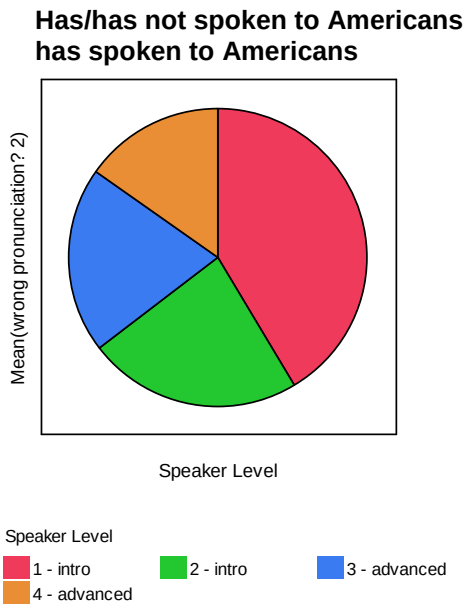


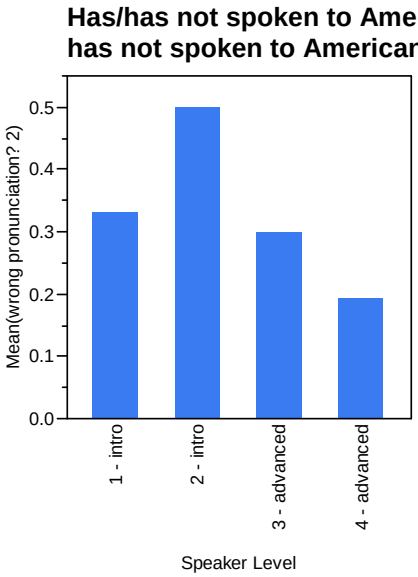


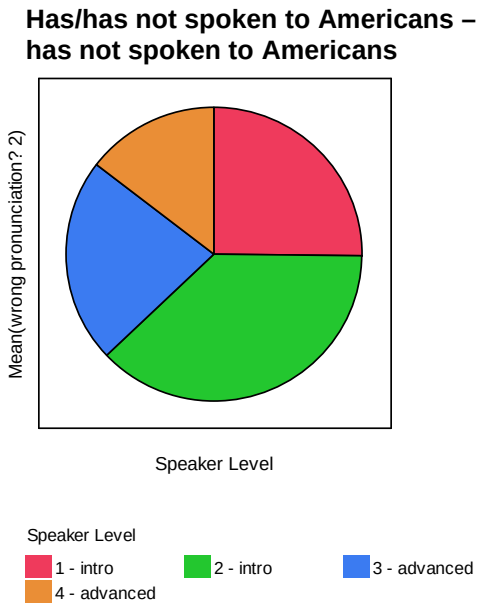


Wrong pronunciation by Introductory Level 1 speakers impeded comprehension the most for Russians who have spoken previously with Americans, while Russians who have not had prior contact with Americans had the greatest difficulty understanding Introductory Level 2 speakers who spoke with incorrect Russian pronunciation.

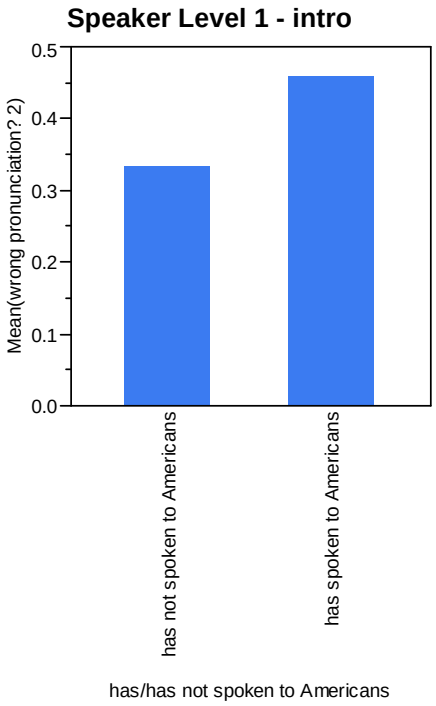


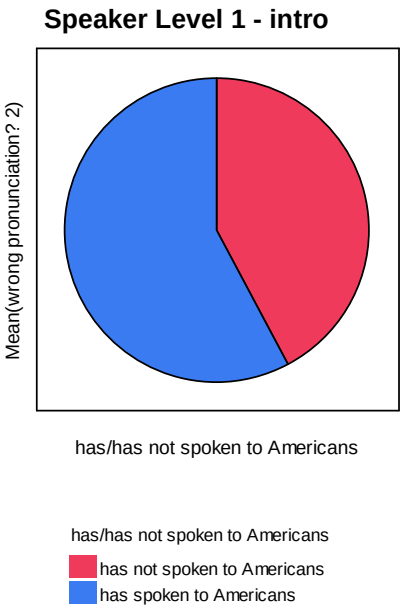


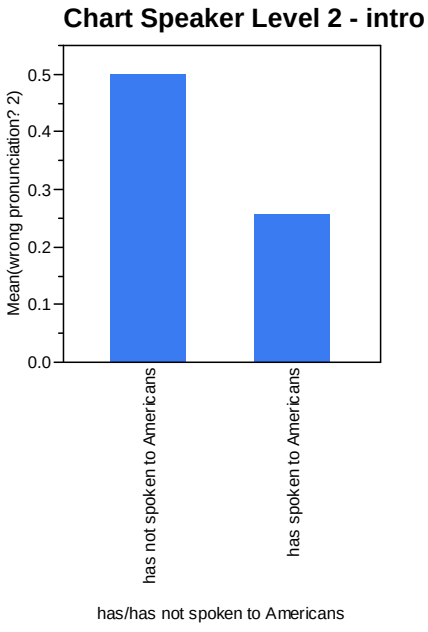


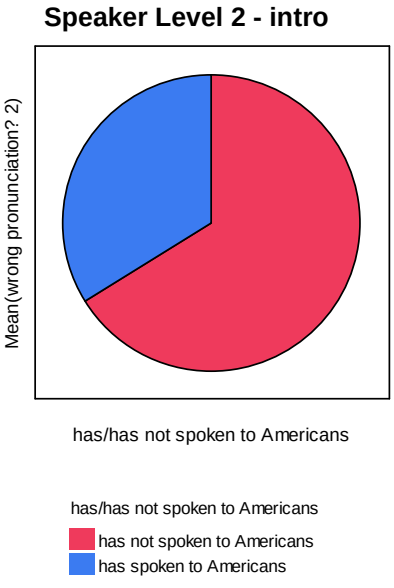


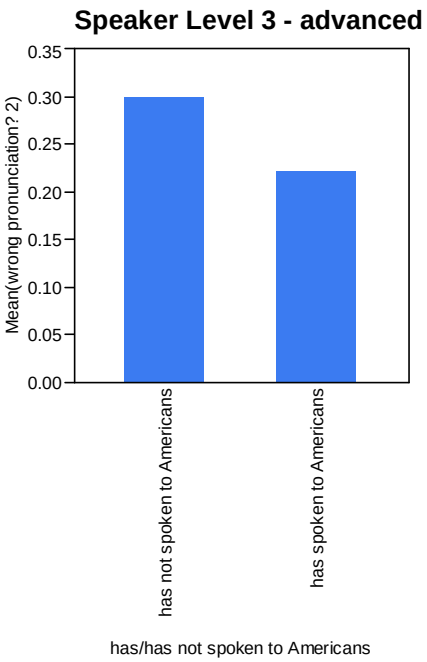
When comparing the reactions of listeners to pronunciation errors made by speakers of different proficiency levels one sees that Russians who have had prior contact with Americans had the most difficulty comprehending Introductory Level 1 speakers with incorrect Russian pronunciation. Russians who have not previously spoken with Americans, however, rated pronunciation errors by Introductory Level 2 and Advanced Level 3 and 4 speakers as having impeded their comprehension the most.

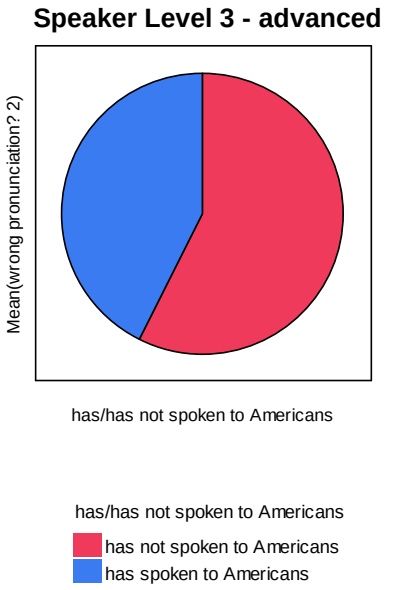


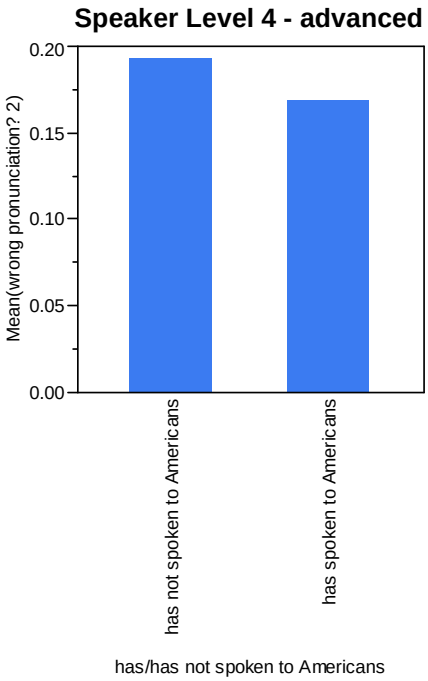


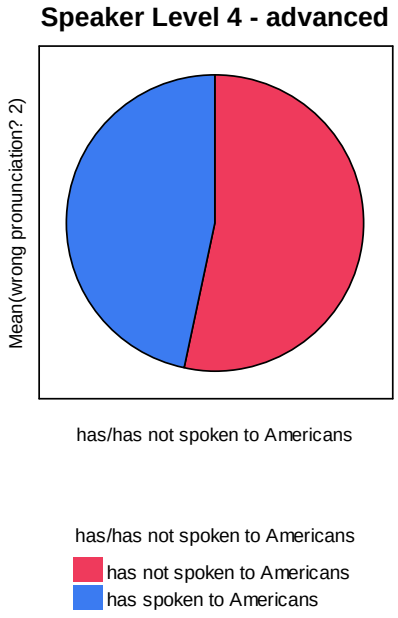





Speaker Level 3 - advanced
Mean(wrong pronunciation? 2)
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
has not spoken to Americans
has spoken to Americans
has/has not spoken to Americans

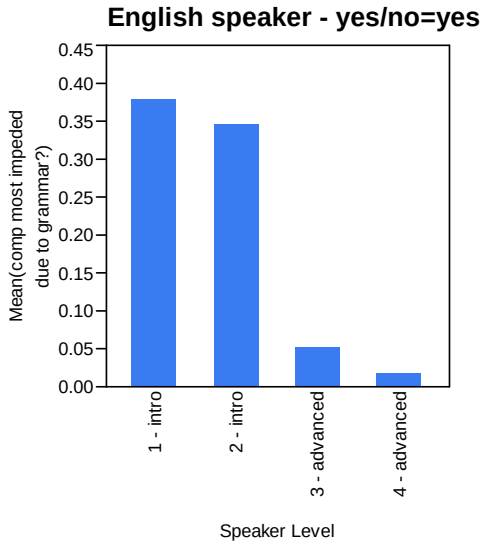

Speaker Level 3 - advanced
Mean(wrong pronunciation? 2)
has/has not spoken to Americans
has/has not spoken to Americans
has not spoken to Americans
has spoken to Americans

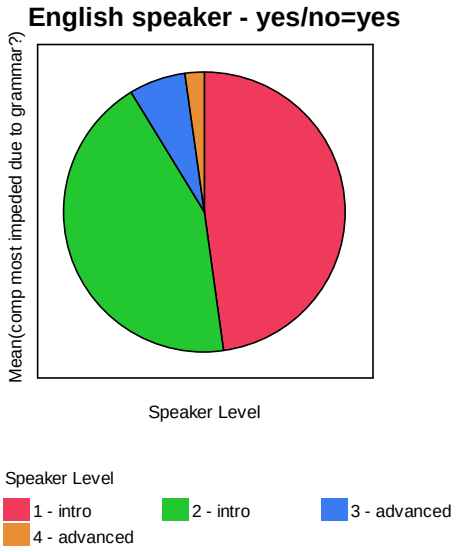

Speaker Level 4 - advanced
Mean(wrong pronunciation? 2)
0.20
0.15
0.10
0.05
0.00
has not spoken to Americans
has spoken to Americans
has/has not spoken to Americans

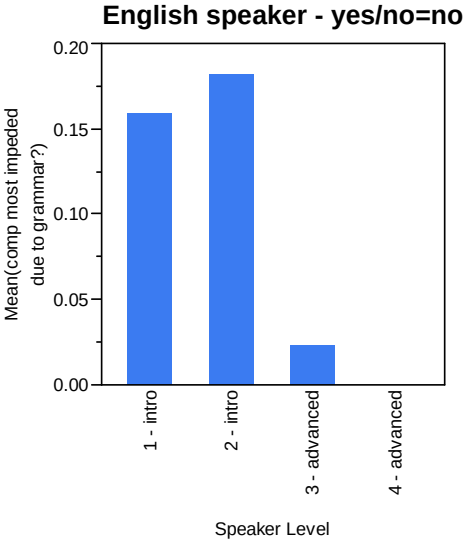

Speaker Level 4 - advanced
Mean(wrong pronunciation? 2)
has/has not spoken to Americans
has/has not spoken to Americans
has not spoken to Americans
has spoken to Americans

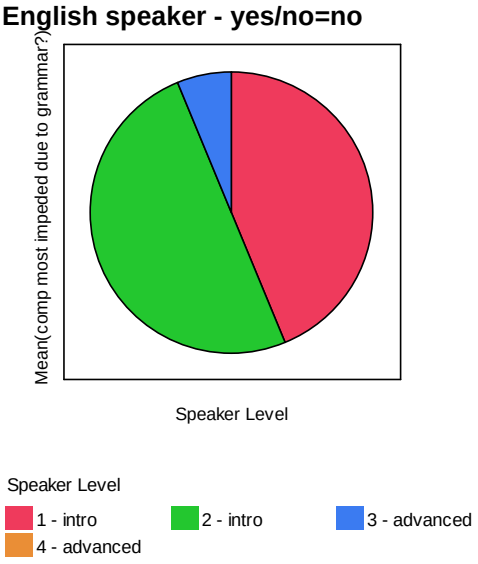
Finally, I examine which of the five errors in question made by the L-2 speakers impeded comprehension for Russians who do and do not speak English. I first consider how the two listener groups rated non-native Russian speakers who made grammar errors.

Russians who speak English had the most difficulty understanding Introductory Level 1 speakers who used incorrect grammar, while non-English-speaking Russians rated Introductory Level 2 speakers who made grammar errors as the most difficult to comprehend.

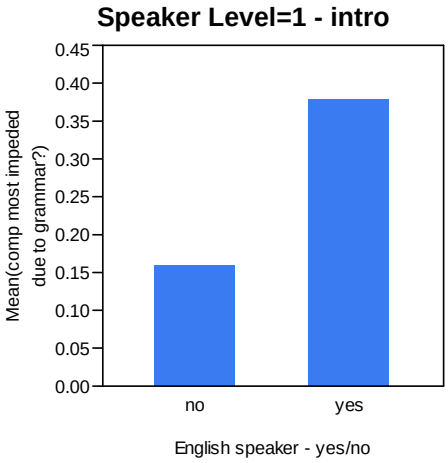


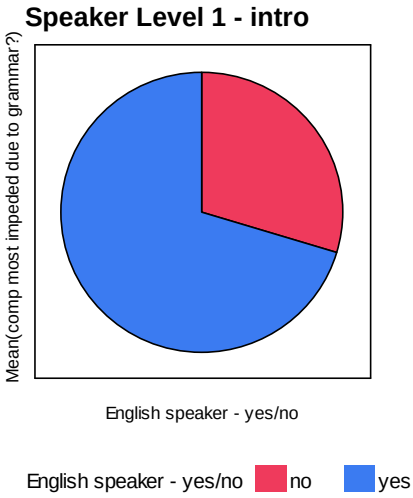


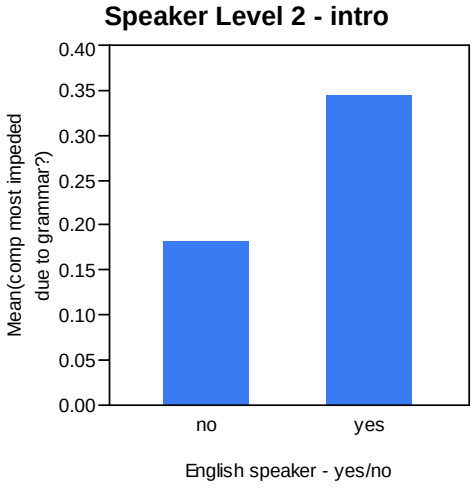


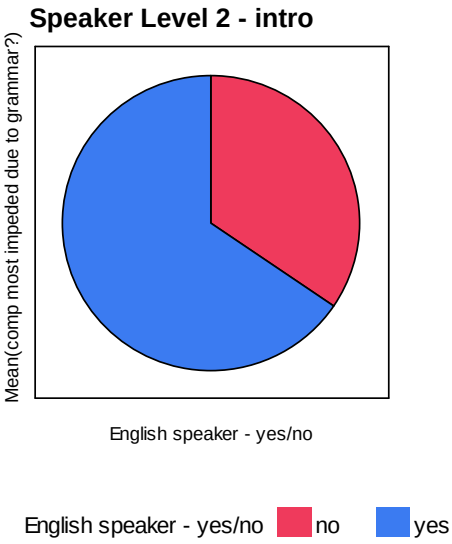


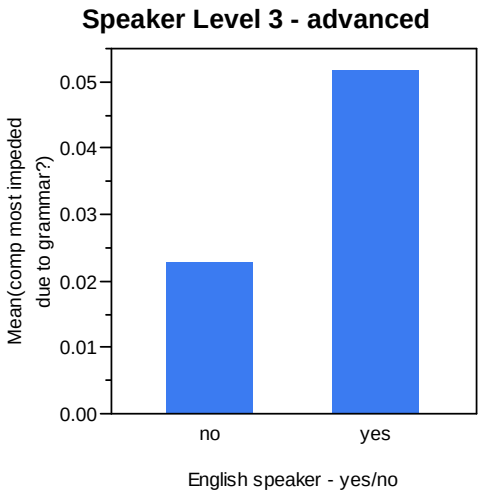
Russians who speak English had greater difficulty comprehending speakers of all proficiency levels who committed grammar errors than did their non-English-speaking counterparts.

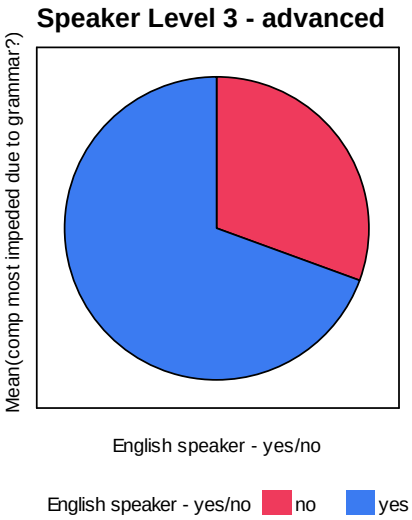


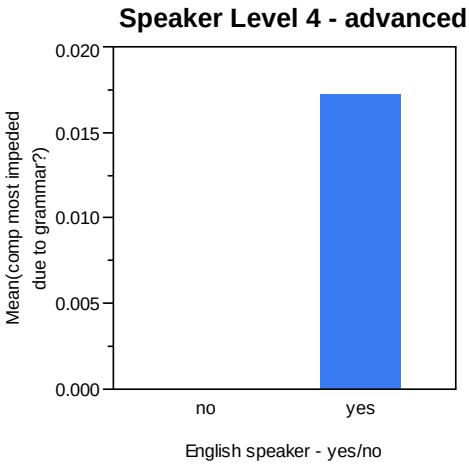


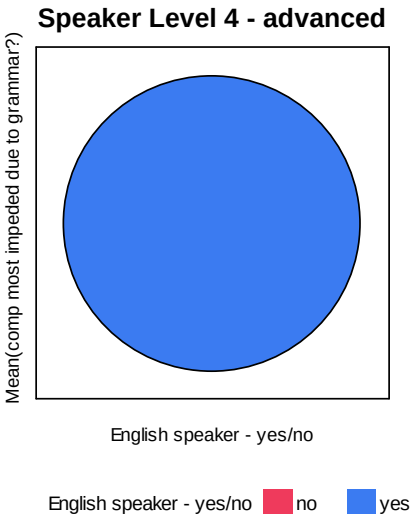




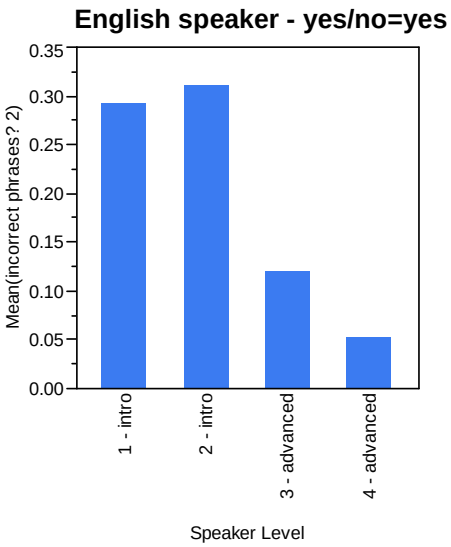


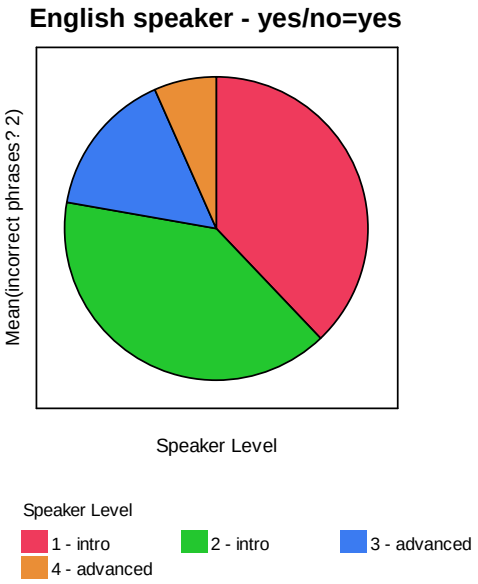


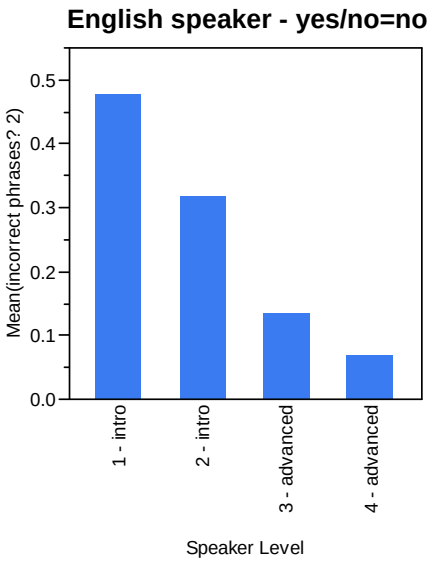


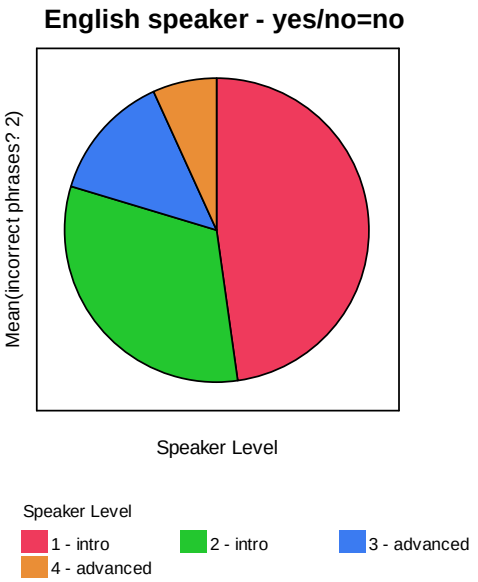


Incorrectly formed phrases produced by Introductory Level 2 speakers hindered comprehension for Russians who speak English. Conversely, Russians who do not speak English had greater difficulty understanding Introductory Level 1 speakers who used incorrectly formed phrases.



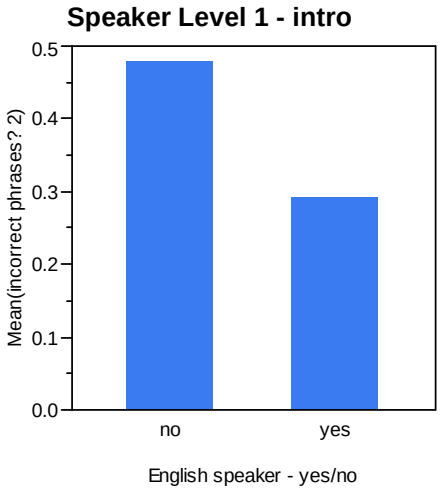


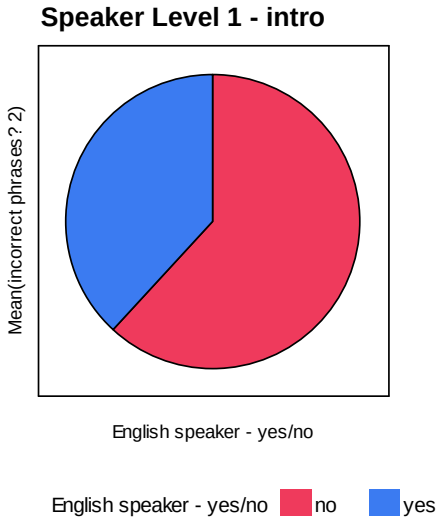


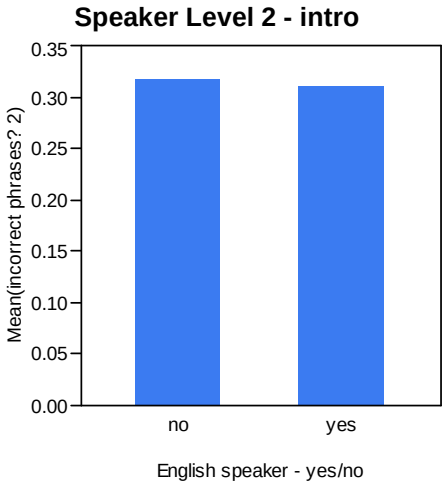


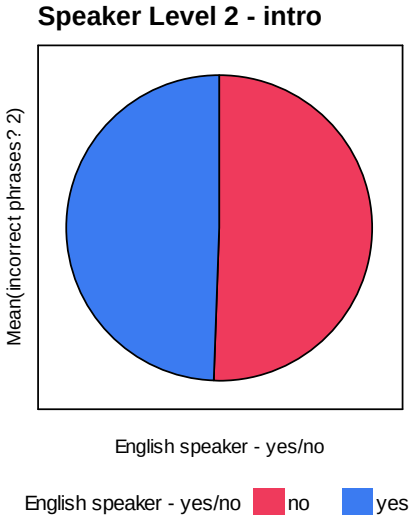
Russian listeners who do not speak English had more difficulty comprehending Introductory Level 1 and Advanced Level 3 and 4 speakers who used incorrectly formed phrases than did their English-speaking counterparts. However, both groups of listeners had equal difficulty understanding Introductory Level 2 speakers who made phrasal

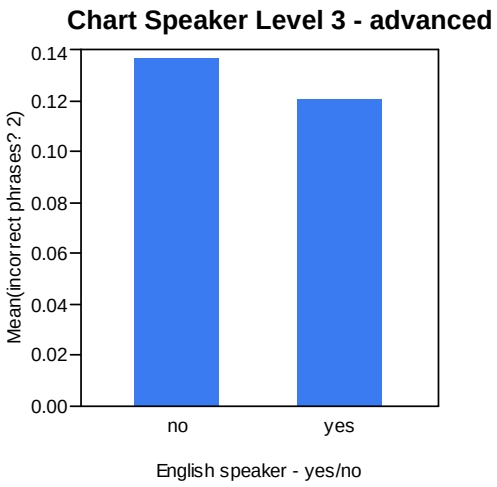
errors.

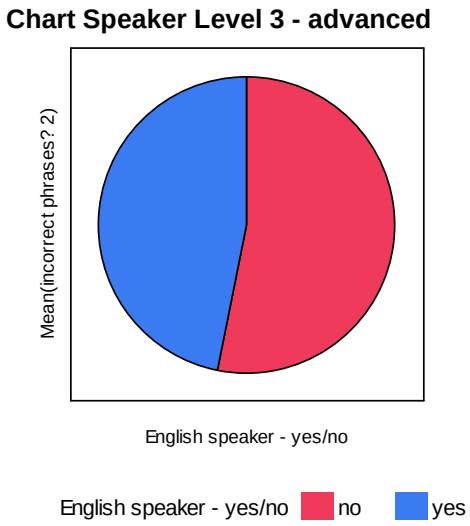

Speaker Level 1 - intro
Mean(incorrect phrases? 2)
0.5
0.4
0.3
0.2
0.1
0.0
no
yes
English speaker - yes/no

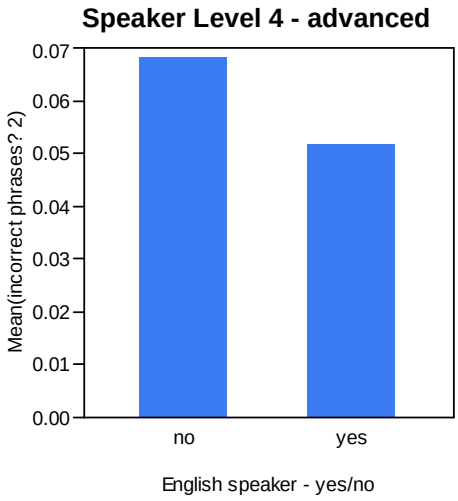

Speaker Level 1 - intro
Mean(incorrect phrases? 2)
English speaker - yes/no
English speaker - yes/no
no
yes

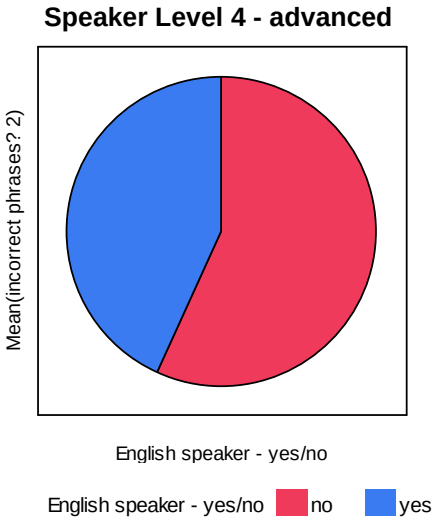

Speaker Level 2 - intro
Mean(incorrect phrases? 2)
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
no
yes
English speaker - yes/no


Speaker Level 2 - intro
Mean(incorrect phrases? 2)
English speaker - yes/no
English speaker - yes/no
no
yes

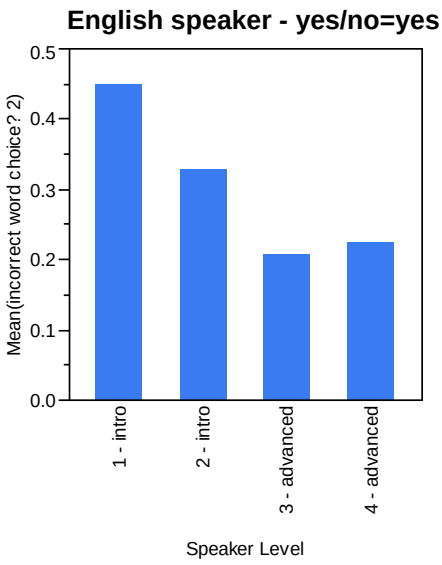


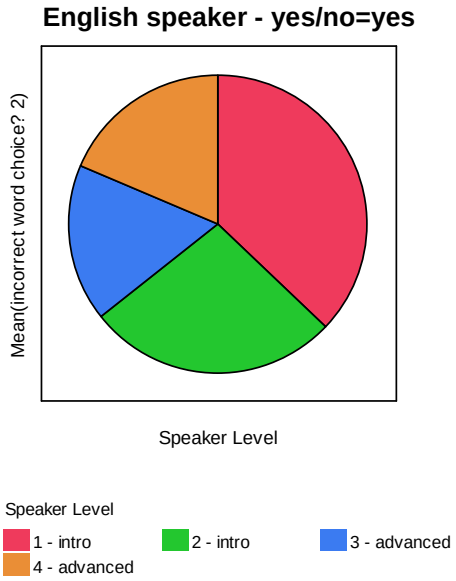


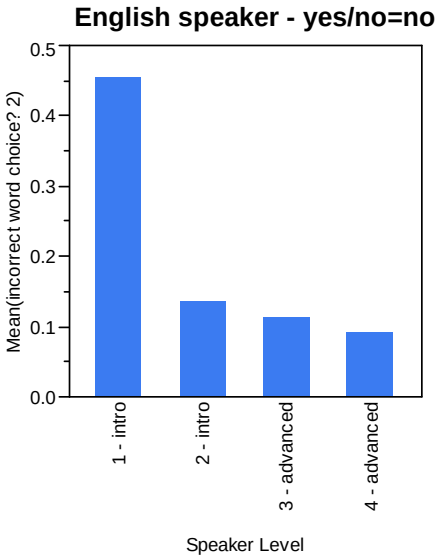


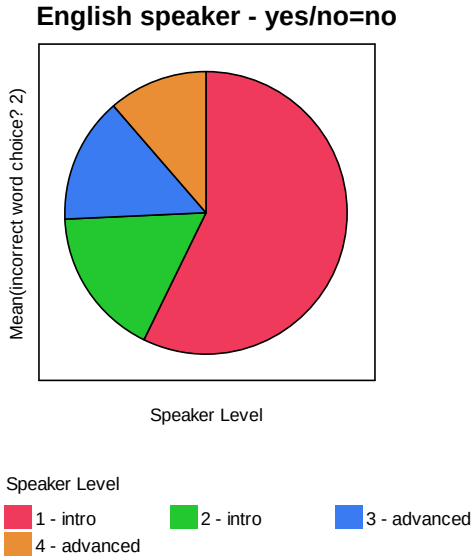


English-speaking and non-English-speaking Russians each had the most difficulty comprehending Introductory Level 1 speakers who made word choice errors when speaking Russian.

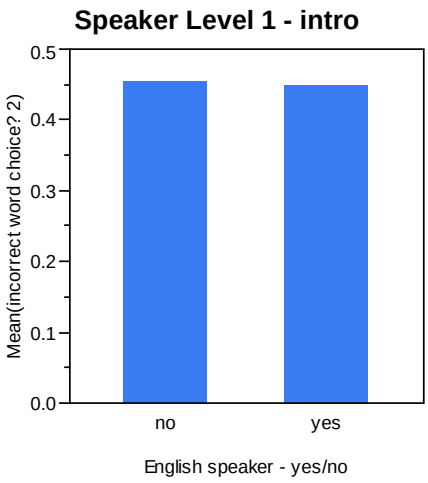


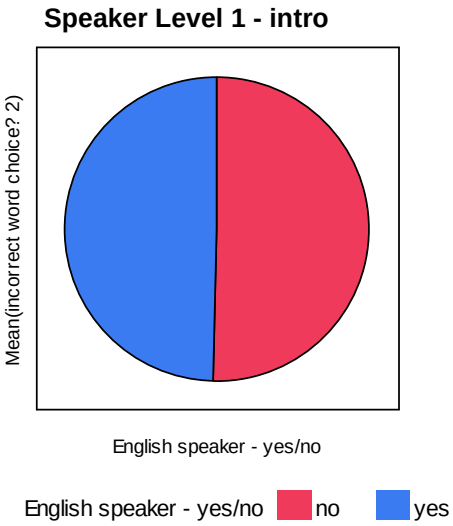


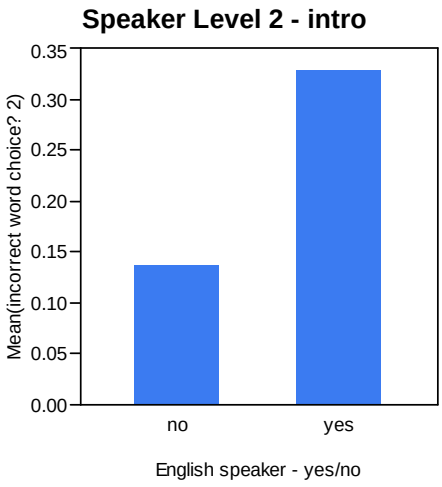


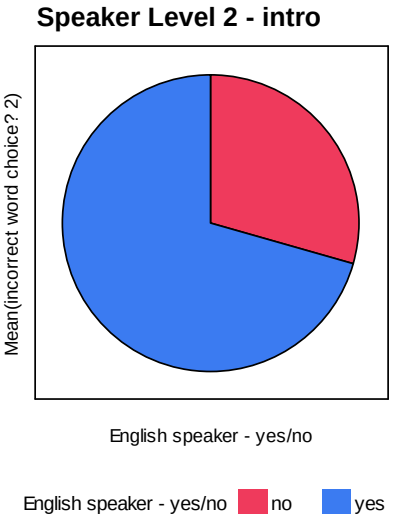


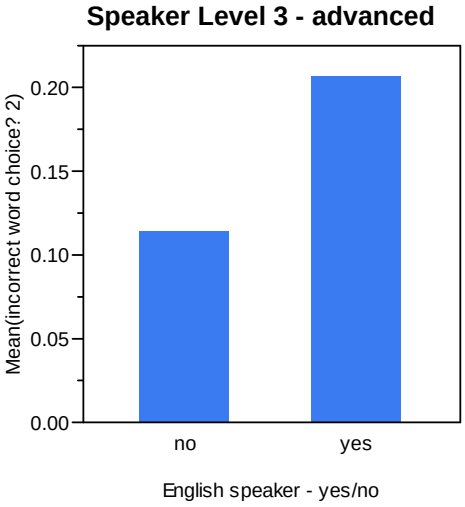
Although Russians who speak English and their non-English-speaking counterparts had the same amount of difficulty comprehending Introductory Level 1 speakers who used Russian words incorrectly, English-speaking Russians rated word choice errors as having more severely impeded heir comprehension of L-2 learners of all other proficiency levels.

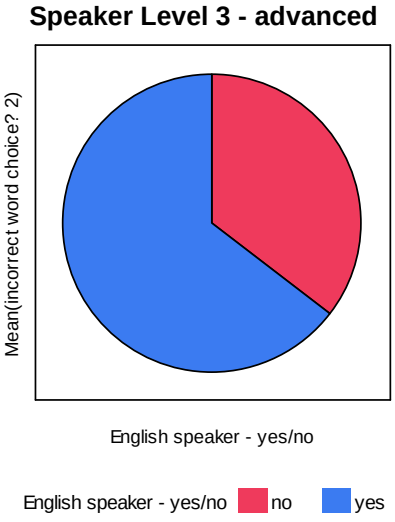

Speaker Level 1 - intro
Mean(incorrect word choice? 2)
0.5
0.4
0.3
0.2
0.1
0.0
no
yes
English speaker - yes/no

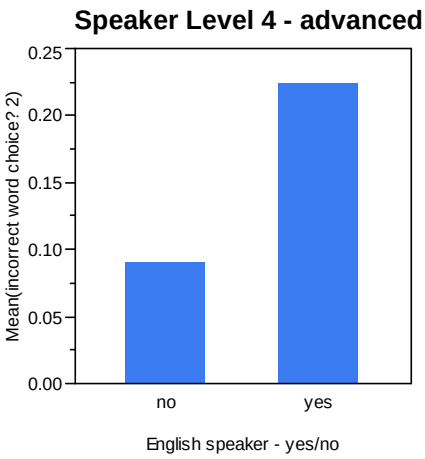

Speaker Level 1 - intro
Mean(incorrect word choice? 2)
English speaker - yes/no
English speaker - yes/no
no
yes

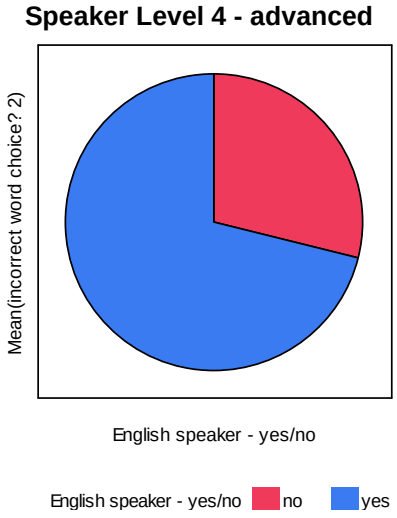

Speaker Level 2 - intro
Mean(incorrect word choice? 2)
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
no
yes
English speaker - yes/no


Speaker Level 2 - intro
Mean(incorrect word choice? 2)
English speaker - yes/no
English speaker - yes/no
no
yes

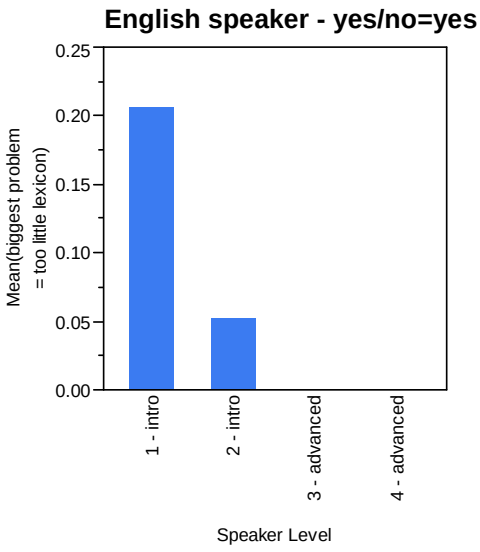

Speaker Level 3 - advanced
Mean(incorrect word choice? 2)
0.20
0.15
0.10
0.05
0.00
no
yes
English speaker - yes/no

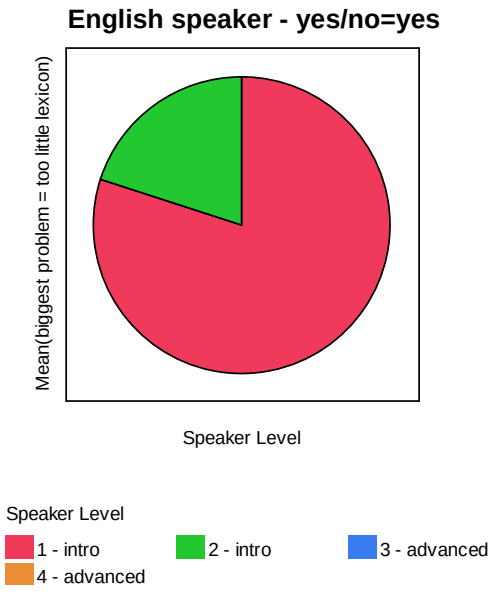

Speaker Level 3 - advanced
Mean(incorrect word choice? 2)
English speaker - yes/no
English speaker - yes/no
no
yes

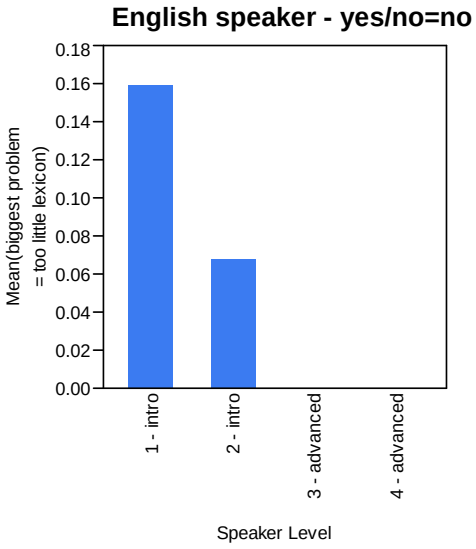


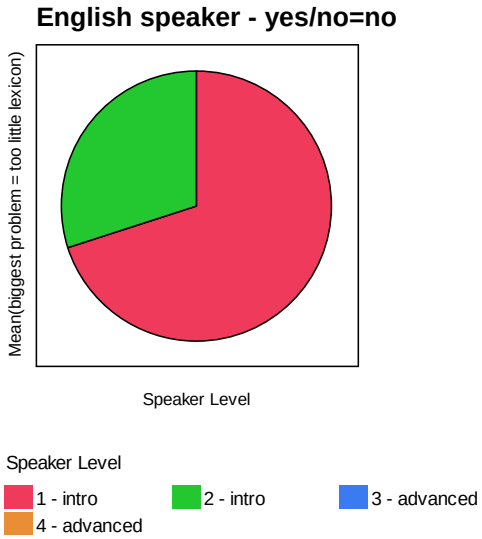


Both English-speaking and non-English-speaking Russians rated too little lexicon as problematic among Introductory Level 1 and 2 speakers. Moreover, both groups thought that their ability to comprehend these speakers was hampered the most due to a lack of sufficient lexicon among Introductory Level 1 speakers.

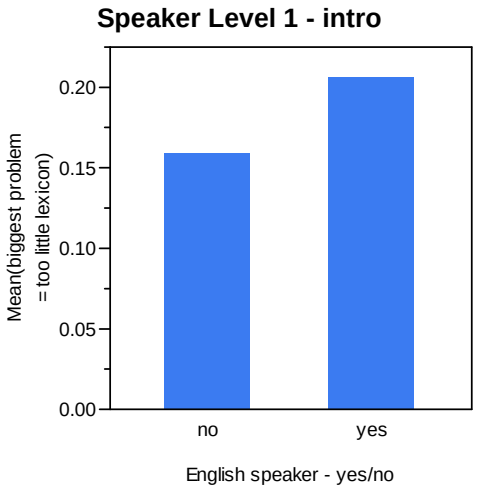


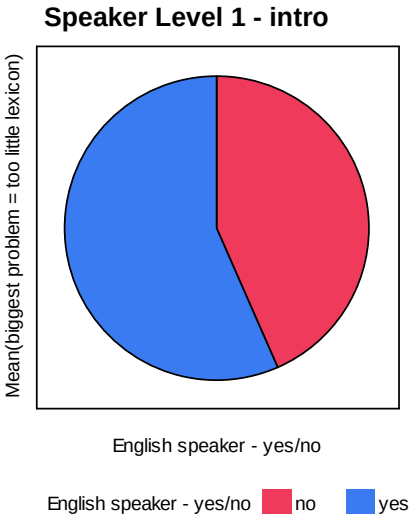


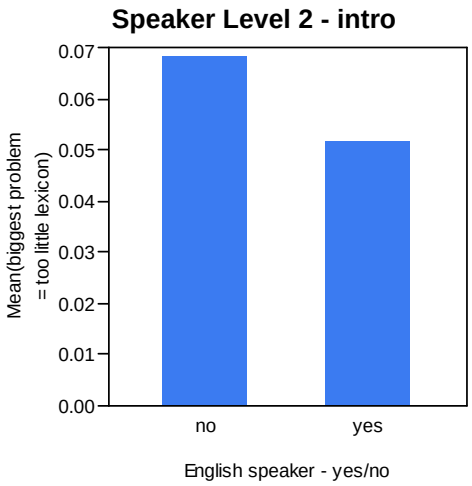


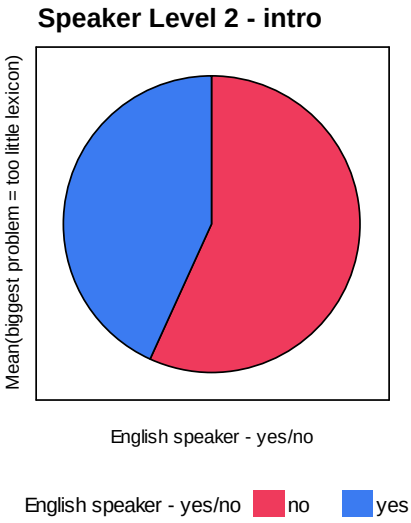


Russians who speak English had the most difficulty comprehending Introductory Level 1 speakers whose speech lacked sufficient Russian lexicon, while Russians who do not speak English thought comprehension was hampered the most by Introductory Level 2 learners whose speech lacked sufficient lexicon.

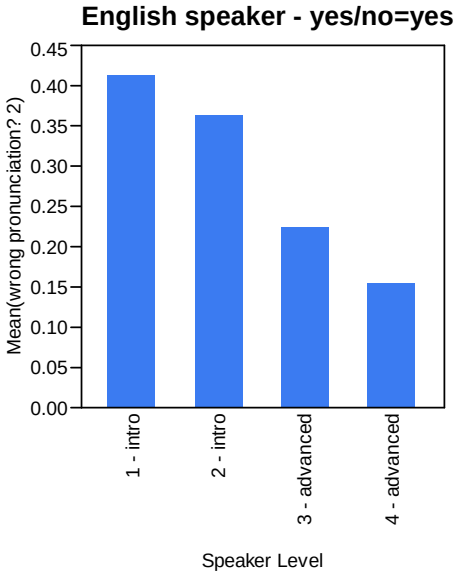


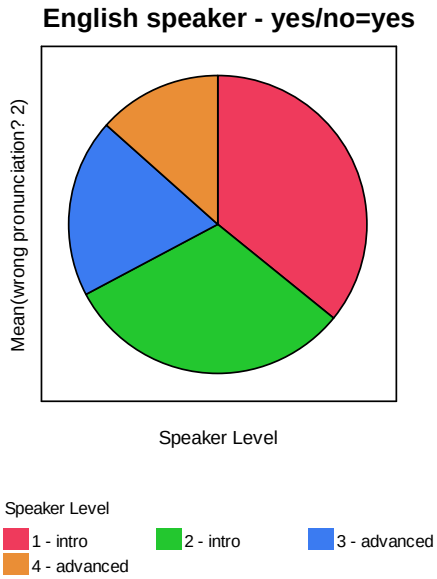


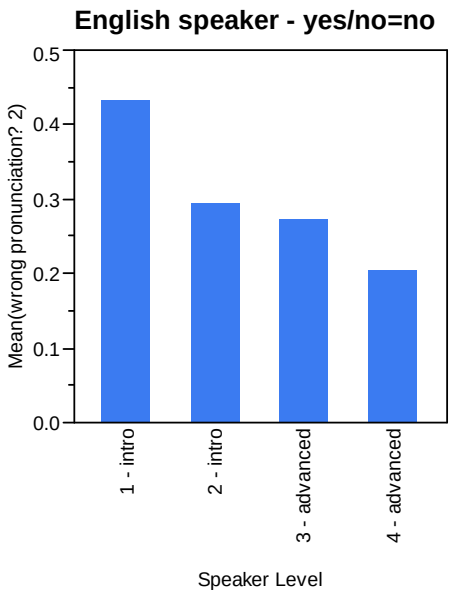


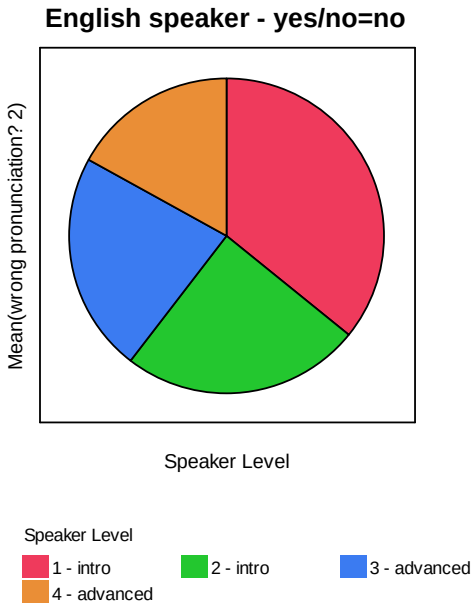


Both English-speaking and non-English-speaking Russians thought that Introductory Level 1 speakers with incorrect pronunciation were more difficult to comprehend than speakers of all other proficiency levels.

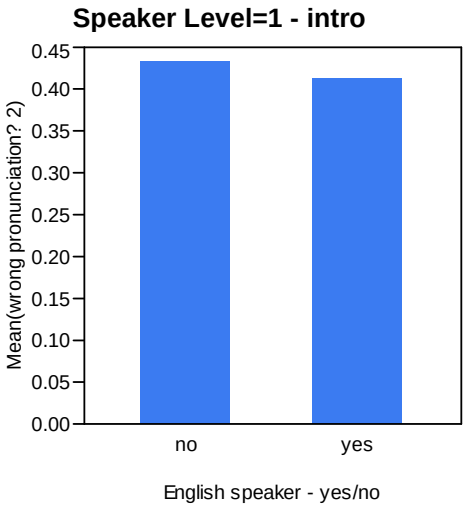


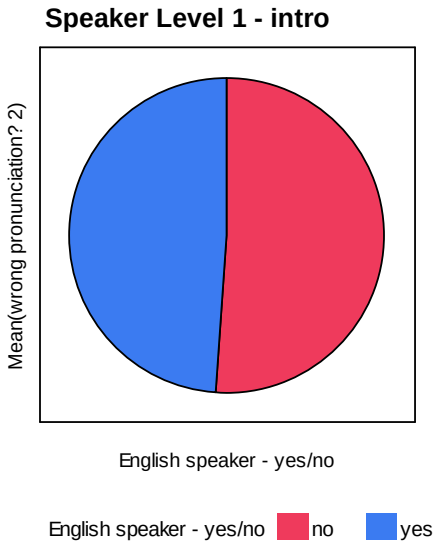


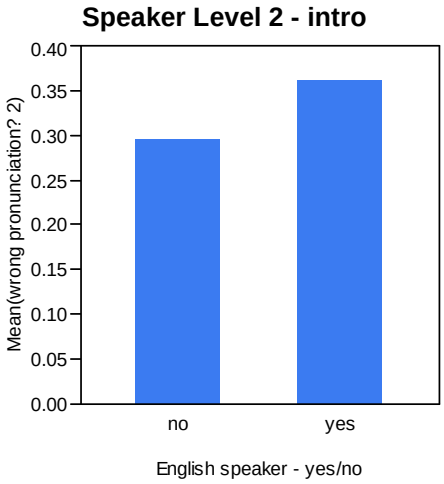




When comparing English-speaking and non-English-speaking Russians listeners in the former group comprehended Introductory Level 2 speakers who made pronunciation errors with greater difficulty than did their counterparts. Conversely, Russians who do not speak English had more difficulty understanding speakers of all other proficiency levels whose speech contained errors in Russian pronunciation.






Speaker Level 2 - intro
Mean(wrong pronunciation? 2)
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
no
yes
English speaker - yes/no

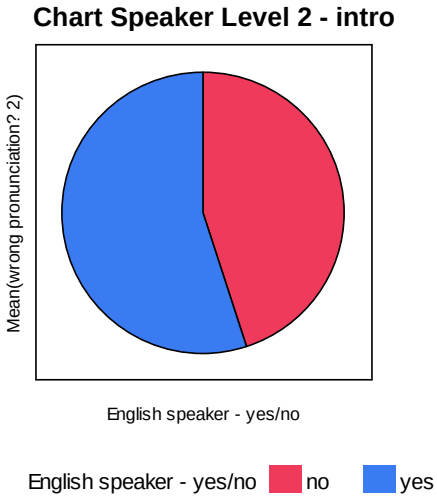
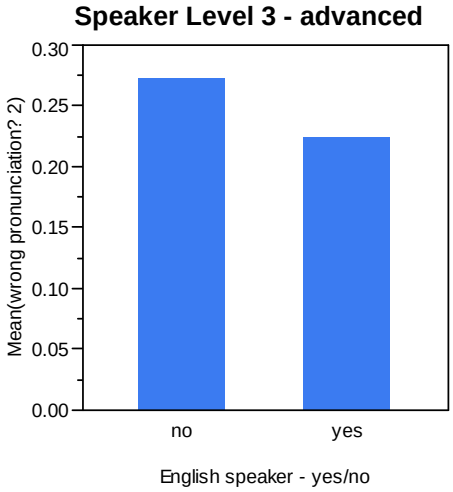


Chart Speaker Level 2 - intro
Mean(wrong pronunciation? 2)
English speaker - yes/no
English speaker - yes/no
no
yes


Speaker Level 3 - advanced
Mean(wrong pronunciation? 2)
0.30
0.25
0.20
0.15
0.10
0.05
0.00
no
yes
English speaker - yes/no

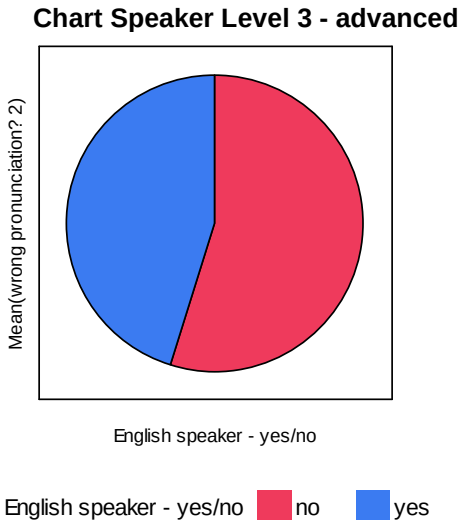


Chart Speaker Level 3 - advanced
Mean(wrong pronunciation? 2)
English speaker - yes/no
English speaker - yes/no
no
yes

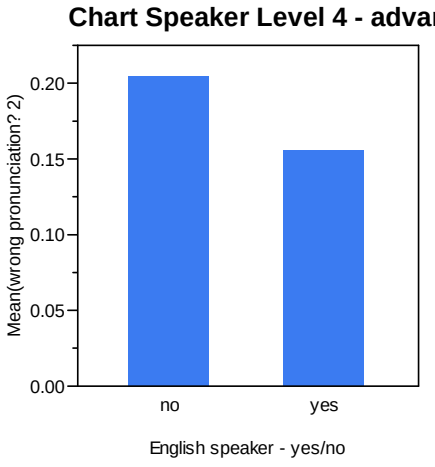
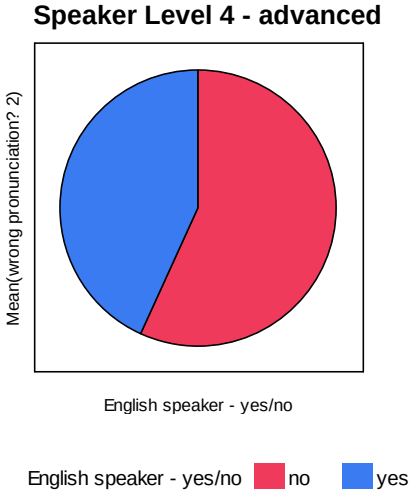


Chart Speaker Level 4 - advanced
Mean(wrong pronunciation? 2)
0.20
0.15
0.10
0.05
0.00
no
yes
English speaker - yes/no


Speaker Level 4 - advanced
Mean(wrong pronunciation? 2)
English speaker - yes/no
English speaker - yes/no
no
yes

Chapter 4

RESULTS AND CONCLUSIONS

4.0 Discussion of Statistical Analyses

Results from the first section of this research study revealed that native Russian-speaking listeners rated "'hard' pronunciation of 'l' and other consonants" as the most serious error in the "sounds" category among L-2 speakers of all levels. However, in the "words" category two errors were deemed the most serious but differed by speaker level. Namely, "word stress" was rated as the most serious error for Introductory Level 1 and 2 and Advanced Level 3 speakers, while among Advanced Level 4 speakers L-1 listeners were most disturbed when they heard speakers make pauses in words. Listeners rated "intonation" as the most frequent and serious error in the "speech" category among non-non-native speakers. When comparing scores in the "sounds," "words" and "speech" categories, one sees that "'hard' pronunciation of 'l' and other consonants" is still rated as the "most serious" error for all speaker levels.

In addition, findings from this study reveal that errors in "speech" were most frequent for Introductory Level 1 speakers, while Introductory Level 2 speakers had the highest number of errors in "words." Among Advanced Level 3 speakers, errors in "sounds" scores were deemed as problematic, while Advanced Level 4 speakers did not make a high number of errors in any of the three categories.

My research also sought to learn which form of non-normative speech different L-1 groups rated as the most salient for each speaker level. The findings show that all listener groups rated "'hard' pronunciation of 'l' and other consonants" as the most salient error among L-2 speakers of all levels.

Results varied, however, regarding the saliency of errors in other categories. For instance, the highest-ranking errors in the "Words" category for speakers of different levels were: stress, pronunciation of words in segments, pauses in words and repetition of first syllable. "Stress" was noted as the most salient error among Introductory Level 1, 2 and Advanced Level 3 speakers by non-teachers of Russian as a Second Language, Russians who speak English, Russians who have not had contact with Americans and Russians who live in the US. Teachers of Russian as a Second Language, Russians who have had contact with Americans, Russians who do not speak English and Russians living in Russian rated "stress" as the most salient error for Introductory Level 2 and Advanced Level 3 speakers.

Listeners also determined that many L-2 speakers were guilty of pronouncing words in segments. In particular, Russians who do not speak English marked "pronunciation of words in segments" as a high-ranking error among Introductory Level 1 and Advanced Level 4 speakers. However, teachers of Russian as a Second Language, Russians who have had contact with Americans and Russians in Russia judged this error as serious only among Introductory Level 1 speakers.

Although L-1 listeners such as teachers of Russian as a Second Language, Russians who do and do not speak English, Russians who have not had contact with Americans and Russians in the US rated "pauses in words" as a highly salient error, they determined it had only been made by Level 4 speakers.

When examining ratings of "repetition of first syllable" one sees that it, like "pauses in words" and "repetition of first syllable" was only considered a serious error among Advanced Level 4 speakers. Listeners who gave it this ranking were: Russians in

Russia, non-teachers of Russian as a Second Language, Russians who have had contact with Americans and Russians who do not speak English.

Without question, the "speech" error that was rated "most serious" by listeners in each group was "intonation." Russians who have had contact with Americans, Russians in Russia and teachers of Russian as a Second Language determined that L-2 speakers of all levels had produced intonation incorrectly. Russians who do not speak English and non-teachers of Russian as a Second Language considered "intonation" as a high-ranking error among Introductory Level 1, 2 and Advanced Level 3 speakers, while Russians in the US and Russians who do speak English judged it as serious among Introductory Level 2 and Advanced Level 3 speakers. Russians who have not had contact with Americans rated "intonation" as a serious error among Introductory Level 1 and Advanced Level 3 speakers.

"Speech rate" was another error in the "speech" category Russian listeners determined was highly salient. Based on the data results, non-normative speech rate forms were heard frequently among Introductory Level 1 and Advanced Level 4 speakers. Teachers of Russian as a Second Language ranked the incorrect speech rate of Introductory Level 1 speakers as "serious," while non-teachers of Russian and Russians who have not had contact with Americans gave a "serious" ranking to Advanced Level 4 speakers who spoke with an incorrect speech rate. However, Russians who speak English and Russians in the US thought that "speech rate," when produced incorrectly, was a high-ranking error among both Introductory Level 1 and Advanced Level 4 speakers.

The final non-normative linguistic form noted by Russians who have not had contact with Americans and Russians who do not speak English was "lack of emotional

expression," with the former having ranked this error as "serious" for Introductory Level 2 speakers, and the latter for Advanced Level 4 speakers.

The data also provide interesting evidence to show which category of non-standard forms listeners rated as most prevalent among each speaker group. Russians from Russia and the US, teachers and non-teachers of Russian as a Second Language, Russians who have and have not had prior contact with Americans, and Russians who speak English all ranked speech errors as the most predominant among Level 1 speakers. However, Russians who do not speak English thought that Level 1 speakers produced the greatest number of errors in sounds.

Russians from Russia and the US, teachers and non-teachers of Russian as a Second Language, Russians who have and have not had prior contact with Americans, and Russians who do and do not speak English all concluded that Level 2 speakers made the most L-2 word errors.

Although teachers of Russian as a Second Language and Russians who have had prior contact with Americans thought that no Level 3 speakers had committed errors above the average problem score level, all other listeners in the above-mentioned groups judged Advanced Level 3 speakers as having made the most errors in Russian sounds.

Respondents in all of the four listener groups determined that Level 4 speakers did not make any errors that were above the average problem score level.

By considering the control group results, one notices that L-1 listeners rated "akan'e" as having most negatively impacted their intelligibility of L-1 speech in the "sounds" category. These listeners were also frustrated by native speaker use of "pauses in words" in the "words" category, as well as by "lack of emotional expression" in the

"speech" category. Native Russian listeners determined that L-1 "lack of emotional expression" complicated their intelligibility the most when all errors were analyzed together. A comparison of the standardized scores of the "sounds," "words" and "speech" categories of non-natives and L-1 control group speakers shows that L-1 listeners rated all scores of the control group positively, with control group participants having received the highest scores in the "sounds" category.

In the second section respondents were first asked to write down specific examples when the L-2 speech they had heard was incomprehensible and whether incomprehensibility was caused by incorrect grammar, incorrectly formed phrases, incorrect word choice, incorrect pronunciation or lack of lexicon. If they answered “yes” to this question they then noted which above-mentioned aspect(s) had interfered the most with their comprehension and why they thought so.

In response to the first question incorrect use of Russian grammar by Level 1 and 2 speakers resulted in incomprehension for L-1 speakers. Specifically, respondents noted that they had difficulty understanding Level 1 speakers who used incorrect grammatical endings on verbs and nouns, while the incorrect use of verbs of motion by Level 2 speakers resulted in incomprehension for some listeners.

There were many instances when L-2 speech was unclear for native Russian speakers due to incorrectly formed phrases, which were produced by speakers of various proficiency levels. For example, a Level 1 speaker said, «Моя сестра работает как профессор» [My sister works like a professor], which made several L-1 listeners wonder if the sister was only pretending to work like a professor because of the use of the word «как» [like] in the sentence. Many listeners also had difficulty understanding a Level 2 speaker’s phrase «Колорадо красиво сделать всё это» [Colorado is a beautiful place to do all that] because respondents were left wondering to what «всё» [all that] was specifically referring. Another Level 2 speaker produced the sentence «Мама медсестра в банке, а папа работает в Америке» [Mom’s a nurse in a bank and Dad works in America], which confused several L-1 speakers and made them wonder why the speaker set up such an atypical contrast.

Advanced-level speakers also made word-choice mistakes that interfered with native-speaker comprehension. One Level 3 speaker said, for instance, «Она воспринимала кислоту, т.е. наркотики» [She perceived acid, that is, drugs]. However, even though the speaker clarified himself by adding «т.е. наркотики» [that is to say, drugs], many listeners were still left feeling confused by use of the word «кислота» [acid]. Interestingly, several individuals remarked that they were *more* confused after the speaker's "clarification" than if he had not said this word at all. Another Level 3 speaker stated «Мои родители всё-таки живут в...» [Nevertheless, my parents live in …], which puzzled many L-1 listeners, as they did not hear a contrast that warranted the use of «всё-таки» [nevertheless] in this sentence. The phrase «По профессии моя жена работает дома» [My wife has a degree to work at home], produced by a superior-level speaker, also caused many listeners to wonder how the speaker's wife could receive such a degree to be employed at home.

Several phrases produced by L-2 contained double-meanings, which also resulted in L-1 listener comprehension. A Level 1 speaker said «Моя сестра профессор маленьких детей» [My sister is a professor of little children]. 15 listeners had difficulty understanding whether the speaker's phrase meant that her sister is an elementary school teacher or a tutor. The same speaker also stated «Папа маленький человек» [Dad is a little guy], which caused six listeners to wonder if the speaker was referring to her father's height or status at work. A Level 4 speaker said the phrase «Мой брат любит бегать много» [My brother likes to run a lot], which caused L-1 listeners to wonder whether the brother is a runner or is always rushing somewhere. Yet another source of confusion was a speaker's use of «автобусная станция» [bus stop], which confused

listeners as «станция» [stop] is primarily used when speaking about metro stops. Thus, listeners were unsure whether the speaker was referring to «остановка» [bus stop] or «автовокзал» [bus station].

By incorrectly using Russian prepositions, several non-native speakers inadvertently confused their listeners. For example, a Level 3 speaker said «Мама просто у дома» [Mom's near home], leading several Russian listeners to wonder if the speaker's mother worked at home or was simply located somewhere close to the house. A Level 4 speaker said «Он смотрит на птиц» [He watches birds], which made five L-1 listeners wonder if the individual watches birds fly overhead or if he takes care of them, in which case the speaker had made a grammatical mistake and meant to say «Он смотрит за птицами» [He looks after birds].

Many listeners noted that incorrect pronunciation and failure to correctly produce hard and soft consonants and vowels resulted in several phrases being incomprehensible. In particular, some respondents thought that incorrect word stress was the cause of their inability to understand certain L-2 phrases. One phrase that caused confusion for many native Russian speakers was produced by a Level 1 speaker. Although the intended phrase was «Она забыла юбку школы дома, когда у неё есть школа» [She forgot her skirt at home when she had school], a large number of respondents thought they had heard «Она завела кота в школе, когда у неё есть школа» [She adopted a cat at school when she had school], due to incorrect word stress and soft pronunciation of the vowel «ы» [y] in the word «забыла» [forgot]. A second group of listeners thought the speaker said «Она заняла кота в школе, когда у неё есть школа» [She borrowed a cat at school

when she had school]. A third group was simply confused what had happened at school and at home.

Incorrect word stress and failure by L-2 Russian speakers to pronounce words with their correct hardness or softness resulted in other instances of incomprehension for native Russian speakers. For instance, although a Level 1 speaker said «Мама медсестра и работает в больнице» [Mom is a nurse and works in a hospital], many respondents thought they heard «Мама медсестра и работает в банке» [Mom is a nurse and works in a bank] because the speaker incorrectly stressed the first syllable in «больнице» [hospital] instead of the second one, and ignored the soft sign before /л/ [l]. As a result, listeners could only guess what a nurse would be doing in a bank.

Level 2 and 3 speakers also used incorrect word stress and caused L-1 listener incomprehension. One Level 2 speaker, for example, incorrectly placed the stress on the ending /у/ in the word «вору» [thief], instead of on the vowel /о/, which would have been correct. As a result, many listeners had difficulty comprehending this word. A Level 3 speaker said «Папа скоро станет адвокатом» [Dad will soon become an attorney], but due to incorrect stress placement on the second, rather than the third vowel, as well as the speaker swallowing the word as he said it, listeners were left confused as to what had been said.

Incorrect pauses in sentences also caused confusion for some L-1 listeners. One Level 3 speaker said «Мой папа умер, может быть, 3 года назад» [Dad died maybe three years ago]. Although respondents did not have difficulty understanding this sentence, the fact that the speaker used «может быть» [maybe] in the middle of it and paused before and after saying “maybe” made many L-1 listeners wonder if the speaker

was sure his father had died three years ago. Listeners reported that the speaker should have completely avoided the use of «может быть» [maybe] in this sentence and instead used a word such as «около» [about] or «примерно» [approximately] without pausing in mid-sentence.

It is worth mentioning that respondents reported difficulty in comprehension in cases when L-2 speakers made long pauses (between words and sentences) while narrating. Several respondents claimed that such long pauses, especially with Level 1 speakers, made them simply forget what had been said and lose track of what the speaker was saying. Similarly, many listeners expressed frustration at having to listen to the slow speech rate of beginning-level speakers. Finally, a significant number of listeners was displeased by the habit of some speakers of drawing out certain vowels (e.g. «э-э-э-э-э-э-э-э» and «a-a-a-a-a-a-a-a») when they were trying to think of what to say next.

Confusion also arose for several listeners who noted that they could not understand certain names of people and places that the speakers had pronounced in an English, rather than Russian way, and were left wondering what the speaker had just said.

Finally, several L-1 Russian speakers claimed that in specific instances they had difficulty understanding Level 1 speakers due to a lack of lexicon. Specifically, respondents noted that when the beginning-level speakers were trying to tell their funny stories their lack of vocabulary often prevented them from getting their intended message across to the listener.

When evaluating responses to the second question – did incorrect grammar, incorrectly formed phrases, incorrect word choice, incorrect pronunciation or lack of

lexicon complicate comprehension for L-1 listeners the most and why – I divided my respondents into four categories (Russians in Russia, Russian in the US; teachers of Russian as a Second Language, non-teachers of Russian as a Second Language; Russians who have spoken with Americans, Russians who have not spoken with Americans; and English-speaking Russians, non-English-speaking Russians) to learn how responses varied among individuals in different groups. I begin by considering responses provided by Russians in Russia and Russians in the US.

Russians in Russia had the most difficulty comprehending Level 1, 2, 3 and 4 L-2 speakers who spoke with incorrect pronunciation. Respondents in this group noted that L-2 speakers who used incorrect word stress, did not articulate their pronunciation of words and said the names of American cities using English, rather than Russian pronunciation, were especially difficult to understand. In addition, respondents in this group thought that incorrectly formed phrases also interfered with their comprehension of Level 2 speakers.

Russians in the US, on the other hand, determined that incorrect word choice interfered with their comprehension of Level 1 and 4 L-2 speakers. Interestingly, listeners thought that the inability of some speakers of these levels to use words correctly resulted in their funny family stories losing some of their spark and comic effect. However, L-1 Russian speakers in the US thought that incorrect pronunciation of Level 2 and 3 speakers impeded their comprehension the most. Several of these listeners, for instance, judged L-2 speakers of these levels hard to comprehend due to their retention of unstressed /o/ (i.e. *оканье*) [retention of unstressed o] and incorrect word stress.

Teachers of Russian as a Second Language thought that incorrect word choice by Level 1, 2 and 4 speakers impeded their comprehension the most. Respondents noted that

because of speakers using words in the wrong context and mixing them up it was difficult to understand the main idea of the story that Level 1 and 2 speakers were trying to tell. However, respondents in this group determined that pronunciation interfered the most with comprehension of Level 3 speakers due to several instances when individuals mumbled words.

Russians who do not teach their L-1 as a foreign language were of the opinion that incorrect word choice, and in particular of erroneously used word combinations, impeded their comprehension of Level 1 speakers. However, these listeners had the greatest difficulty comprehending Level 2, 3 and 4 speakers who used incorrect pronunciation. Several individuals specifically noted that, despite minor grammatical errors made by several speakers, listeners were still able to comprehend the general idea of their speech. However, pronunciation errors made by the speakers required the respondents to make an effort, sometimes unsuccessful, to comprehend what was being said. Additionally, non-teachers of Russian as a Second Language decided that incorrectly formed phrases also caused great difficulty in their ability to comprehend Level 2 speakers.

Russians who have had previous contact with Americans judged incorrect pronunciation as having impeded comprehension the most when listening to L-2 speakers of all levels. In particular, they were frustrated by the slow speech rate not only of beginning and intermediate speakers, but also of advanced and proficient speakers, as well as the excessive number of pauses L-2 speakers used. Furthermore, listeners in this group determined that incorrectly formed phrases and incorrect word choices also hampered their comprehension of Level 2 speakers.

Conversely, Russians who have not had previous contact with Americans concluded that incorrect word choice hampered their comprehension of Level 1 and 4 speakers, while incorrect L-2 pronunciation resulted in their inability to understand some or all of the speech of Level 2, 3 and 4 speakers. In particular, Russians in this group were frustrated by the pauses that were incorrectly inserted in mid-sentence by several Level 3 speakers, as well as the habit of one Level 4 speaker of speaking too quickly and occasionally swallowing some words. As a result, several listeners noted that they had to strain their ear to understand what this individual was saying.

Russians who know English determined that incorrectly formed phrases by Level 1 and 2 speakers impeded their comprehension the most. However, these listeners construed that they had the most difficulty understanding Level 3 and 4 speakers due to incorrect pronunciation because some advanced-level learners swallowed syllables and some proficient-level speakers used incorrect word stress.

Russians who do not know English, on the other hand, concluded that incorrect word choice by Level 1 and 4 speakers hindered their comprehension the most. In particular, listeners commented that the speech of Level 1 speakers was difficult to understand because of incorrectly used word combinations. Although they had less difficulty understanding Level 4 speakers, some sentences produced by superior-level speakers simply “stood out” and “alerted the listener that the speaker’s native language was not Russian.” Examples include: «Природа рядом, пустыня рядом, океан рядом» [Nature is close by, the desert is close by and the ocean is close by] and «без паспортов не принимают» [without passports you’re not accepted, i.e. admitted]. However, these listeners determined that the pronunciation of Level 2 and 3 speakers interfered most with

their comprehension. When listening to the speech of Level 2 speakers, for example, several listeners noted that the L-2 speakers substituted one consonant or vowel sound for another, which resulted in listeners misinterpreting certain phrases. One such instance occurred when an L-2 speaker pronounced «была» [she was] like «пила» [she drank]. Although her intended meaning was «Я была в поезде» [I was on the train], some listeners heard her say «Я пила в поезде» [I drank on the train]. Similarly, listeners had difficulty understanding some American city names pronounced by Level 3 speakers in an English, rather than Russian, manner.

Although none of the respondent groups determined that incorrect Russian grammar impeded their comprehension the *most*, listeners did note several specific instances when incorrect Russian grammar affected their comprehensibility of L-2 speech. Several listeners remarked, for instance, that the speaker's intended meaning was lost due to incorrect grammar *and* poor pronunciation. However, these listeners were of the opinion that, had L-2 speakers used correct grammar, their meaning may have been clearer, despite their poor pronunciation. In addition, several L-1 Russian listeners thought that the funny stories told by Level 1, 2 and 3 speakers were not funny due to a lack of verbs and verbs of motion, as well as prepositions. Lastly, some respondents had difficulty comprehending L-2 speakers who did not use case and gender agreement for nouns and prepositions.

It is also worth mentioning which linguistic elements native-Russian speakers considered frustrated because they affected native-speaker understanding of the L-2 speech in general. On the whole, respondents did not like listening to L-2 speech that was interlaced with fillers such as «а, ну, может быть, то есть, etc.» [ah, well, maybe, that is

to say]. Moreover, 10 respondents were very troubled at hearing one L-2 speaker constantly repeat the filler word «значит» [so], because, according to all respondents but one, the use of this word made the speaker seem "uncultured." The one individual who thought otherwise asserted that "the use of «значит» [so] indicates how well a foreigner knows Russian."

Equally frustrating for many respondents was hearing students search for words and also start words and then abandon them. Specifically, L-1 listeners noted that one Level 2 speaker finally said the entire word «выехать» after saying the first syllable «вы» a total of four times.

The habit that some L-2 speakers have of "pulling out" certain letters as they searched for words frustrated many native-Russian listeners. Respondents found it very frustrating, for example, when speakers said «а-а-а-а-а-а-а-а-а» «э-э-э-э-э-э-э-э-э-э» as they searched for words. One L-1 listener even noted that she heard a speaker make these sounds a total of 66 times in 2.59 minutes!

Several listeners who do not speak English were confused when they heard American speakers of Russian pronounce words (especially cities and states in the US) just as they would in English, rather than using their best Russian variant, e.g. "Га-вай-ский" [Ha-waii-an] or "Чи-ка-го" [Chi-ca-go]. Thus, when L-2 Russian speakers do not Russianize US toponyms they may cause incomprehensibility for L-1 Russian listeners, especially for those who do not know English.

Another L-2 speech habit that made many L-1 listeners confused and frustrated was hearing one non-native speaker ask himself questions while narrating. For example, when asked the question «Сколько человек в Вашей семье?» [How many people are in

your family?] the speaker replied by asking «Сколько человек в моей семье?» [How many people are in my family?] before beginning to answer the question. Respondents regarded this habit as distracting, as they were waiting to hear the individual's answers, but instead he first repeated the same question they had just heard.

Besides expressing frustration at hearing sounds and words used by L-2 speakers, respondents were also frustrated at ways that non-native speakers constructed phrases. Listeners stated, for example, that it was difficult for them to follow phrases that were hastily constructed by beginning-level speakers, as well as phrases in which speakers unnecessarily repeated speech cliques over and over (e.g. «У меня есть мама, у меня есть папа, у меня есть сестра.») [I have a mom, I have a dad, I have a sister]. Moreover, respondents commented on the difficulty of comprehending non-native speech that is "randomly thrown together without a general thread" running through it.

There are, however, some limitations to this study that must be addressed in future work. In order to gain a broader view of the linguistic abilities of L-2 students, it would be helpful to record a greater number of American speakers of Russian with different proficiency levels. Therefore, a future study should have a total of at least 20 L-2 Russian speakers, with five learners each in the beginning, intermediate, advanced and superior levels. In this way, L-2 speaker variety within each proficiency level would be better demonstrated.

Additionally, larger L-1 sample sizes that are equal in number would also provide results that are more representative of the population at large.

Finally, future research could investigate how a combination of L-2 errors impedes L-1 comprehension. For example, do incorrect pronunciation, word choice and

grammar, for example, impede L-1 comprehension more, less or the same as incorrectly formed phrases and lack of lexicon? Such a study could combine different varieties of variables and would certainly produce results benefiting second language instructors and students alike.

4.1 Discussion of Ethnographic Research

In this section I begin by explaining the results of ethnographical research conducted with native Russian-speaking teachers to determine the effectiveness of the strategies they use to comprehend American speakers of Russian with poor pronunciation or grammar. Thereafter, I summarize the types of strategies Russian host families use to understand non-native American speakers of Russian. I begin by focusing on the most effective strategies that native Russian-speaking teachers describe to understand Americans with poor pronunciation.

Not surprisingly, poor Russian pronunciation by non-native speakers improved the most when teachers and students both employed strategies to correct it. As might be expected, teachers claimed it was very effective to teach students the Russian sound reduction and intonation system and use diagrams to this end. In one teacher's opinion, "Only children can blindly imitate Russian speech, but adults need theory and time to practice." Other teachers remarked that they make a great effort to direct the attention of their students to the rhythm of Russian words, describe and articulate Russian consonants, and compare both Russian hard and soft consonants (был-бил) [byl-bil], as well as English and Russian sounds. In addition, teachers also stressed the importance of

being organized, choosing useful listening exercises for the student(s) and being patient and tactful with them.

Teachers asserted that strategies proved to be effective only when instructors and students worked together to improve pronunciation mistakes that students were making. By and large, repetition provided an effective strategy when teachers and students engaged in it together. For instance, several individuals commented that they repeated difficult sounds with their students, while others had their students repeat difficult sounds, words and phrases immediately after them. When the students spoke in such a way that their speech was incomprehensible due to poor pronunciation some teachers first offered possible variants for what the student wanted to say, and then had the students listen and repeat after them until they correctly pronounced the difficult sound, word or phrase.

However, correcting the way students pronounce words and sounds is not only dependant upon teacher strategies; as my respondents claimed, students must also put forth the necessary effort if they strive to improve their poor Russian pronunciation. Above all, teachers asserted, students must be hardworking and serious if their goal is to be more easily understood by Russian native speakers. One activity that teachers mentioned as useful with highly-motivated individuals is to spend time regularly working on listening exercises. However, teacher respondents were quick to add that simply listening and repeating is not enough; instead, students must be uninhibited enough to engage in classroom exercises that may make them feel silly or even ridiculous. One teacher in particular described having her students sing words by syllables and also using

an “echo” game, in which the students first say a word (e.g. “университет”) [university] very loud with the stress emphasized, repeating it thereafter in a consistently softer voice.

In order to better understand why some students have difficulty improving their Russian pronunciation, the teachers were also asked to provide information about which strategies they had used with students turned out to be ineffective. Although the strategies themselves used by the teachers were the same (e.g. correcting and explaining student mistakes and asking for repetition of the correct variant) as when students had managed to improve their pronunciation, the teachers noted that in certain instances they proved to be ineffective. In the opinion of the teachers, students had difficulty improving their poor Russian pronunciation due to lack of motivation or natural ability, student psychological barriers, or length of Russian language courses. Several teachers noted specifically that unmotivated students did not devote time to learning new words, which resulted in their inability to remember how to correctly pronounce them. In other cases, students simply forgot the correct variant while repeating words or were physically unable to pronounce certain Russian sounds and words correctly. One teacher claimed that her student could not improve her pronunciation in Russian due to a psychological barrier that prevented her from establishing contact with her teacher. However, in some instances students were simply not in Russia long enough for significant change to be made. One teacher spoke about a student who lived in Russia for only eight weeks, which, in her opinion, was not long enough for him to correct his poor pronunciation.

In order to help students who had difficulty comprehending Russian oral speech due to inefficient grammar knowledge, teachers claimed to use such strategies as: thoroughly explaining difficult material, changing their speech rate by speaking more

clearly and slowly with students, rephrasing statements that students couldn't understand and simplifying difficult phrases. In addition, several instructors mentioned they consider it important to paraphrase questions and ask "leading" questions to force students to work on those grammatical forms that need correction.

In order to make difficult aspects of Russian grammar more comprehensible for students, teachers described explaining the entire Russian grammar system to students. One teacher stated that she then deliberately used sentences that had a transparent syntactic structure, preferably with a single clause. She claimed that in this way students were less likely to get "trapped" in difficult grammatical constructions from which they could not untangle themselves.

Based on the frequency that teachers of Russian reported using creative strategies to convey difficult grammatical concepts to students, they do not limit their explanations to those found in textbooks. For instance, many individuals reported drawing on the board, using diagrams, hand gestures and mimicry. Some of the teachers who have a working knowledge of English also maintained that they use English translations or analogies with English syntax, allowing American students to compare Russian syntax with that of their L-1.

Although the majority of effective strategies were carried out by teachers alone, in several instances individuals reported that the students benefited from pair work with the teacher. In particular, one teacher noted that she, too, used drawings to explain Russian grammar, but she had her students think of words to go along with each drawing so that they would make their own associations for recall later.

Just as several strategies used to improve student pronunciation had proved ineffective, so was the case when teachers worked to improve student comprehension of Russian grammar. However, teachers had not changed the types of strategies they used; they still employed repetition (i.e. of phrases used by students, but void of mistakes), presentation of grammar with analogies from English grammar, and paraphrasing of questions, which forced students to explain themselves using different words and grammar constructions. In the opinion of the teachers, the reasons behind the ineffectiveness of these strategies were connected to student factors. For instance, in one case a student had not learned Russian grammar correctly from the beginning; thus, all of the attempts her teachers made to correct it were in vain. Another teacher recounted that her student, with whom she used examples from English, was unfamiliar with L-1 grammar and had had no previous experience learning foreign languages. As a result, the teacher discovered that comprehending Russian grammar was too great of a challenge for her student. Yet another student became very angry when she was unable to rephrase her sentences, which led her to abandon phrases entirely.

I also interviewed host families who had hosted American students for a semester, summer or academic year to learn which strategies they used to understand American students with poor Russian pronunciation or grammar were effective and which were not.

One effective strategy that several families spoke of was drawing pictures of the item(s) their American students had difficulty understanding. In particular, one host mother described even drawing the verbs for different kitchen actions, e.g. “cutting”, “chopping”, “mashing”, as well as food, e.g. “candy” and “filling.” However, these hosts

and hostesses did not stop with drawing; instead, they also acted out words for students by using gestures and mimicry.

Several host families reported that their American students needed to see new words written in order to understand them. For these individuals, the hostesses stated that they wrote down Russian words or whole sentences in block print because, as one hostess maintained, "Sometimes they [American students] understand written language better than oral."

A commonly used effective strategy mentioned by host families was to open a Russian-English dictionary and point to the new word for their American student. If, however, the families did not have a dictionary at hand they reported simplifying their lexicon and choosing synonyms that were easier for the American student to understand. Host family members who knew English described occasionally interpreting new words for students to reduce the time spent looking up new words in the dictionary.

Two host families who did not mind using rather time-consuming tactics to understand their students described the effective strategies they used. One individual preferred to use the five "Wh" questions – who, what, where, why, when and how – so that American students would focus on providing short, to-the-point answers and not get bogged down in trying to produce elaborate sentence structures in Russian.

Another individual claimed that she made a great effort to help her students learn new words and their pronunciation with examples. For example, that hostess described first holding up items (e.g. knife, spoon, napkin, etc.) that students did not understand, handing each item to the students, and then saying the word slowly and clearly in Russian for them. She then told her students to look up the new word in the dictionary. After they

had found the correct word she made them pronounce it for her. Regardless of the correctness or incorrectness of their pronunciation of the word, she then repeated it for them, and had them immediately say it after her. The hostess asserted that such a strategy is effective not only because it forces students to be active in learning new words and improving their pronunciation, but it is very useful for kinesthetic learners who need to have contact with an object in order to remember its equivalent in a foreign language.

The host families described only one type of strategy that was ineffective. On several occasions, either due to frustration, lack of time or fatigue, they simply told their American students, “Forget it!” and abandoned the topic altogether. The individuals who had used this strategy admitted doing so rarely, however, and only when other factors (e.g. lack of patience, time for explanations, etc.) were at play.

4.2 Conclusions

I shall now summarize the results this study has provided to the three research questions posed at the outset:

Research Question I. – In the spoken language of American learners of Russian, which phonetic, lexical and syntactical aspects of their speech interfere with the intelligibility to a native speaker of Russian?

Research Question II. – In the spoken language of American learners of Russian, which phonetic, lexical and syntactical aspects of their speech interfere with the comprehensibility for a native speaker of Russian?

Research Question III. - Which strategies used by native-speaking teachers of Russian as a Second Language and Russian host families of American learners of Russian facilitate comprehensibility of learner speech?

Because of the multiple categories of native informant groups required for this study, I shall also summarize here as well how these groups were constituted in order to respond to the questions above. A total of 51 native-Russian speakers plus a 20-member ethnic Russian control group, whose speech was also rated by the 51-member informant group for comparative purposes, took part in this study. The overall group of 51 primary informant subjects were then re-configured by the researcher at different points in the study into eight different background groups (or clusters), based on their country of residence, professional background, experience with American students and knowledge of English.

1) Residency: Russians in Russia (N = 31) and in the US (N=20);
2) Professional: Teachers of Russian as a Second Language (N=19) and non-teachers (N=32);
3) Experience with Americans: Russians who have had prior contact with Americans (N=15) and Russians who have not had prior contact with Americans (N=36);
4) Knowledge of English: English-speaking Russians (N=29) and non-English-speaking Russians (N=22).

In order to respond to Research Question III above, 18 teachers of Russian as a Second Language (out of the overall cluster of 19) as well as 8 home-stay family hosts, selected from Cluster 3 above, were additionally asked to describe and comment on

effective strategies they had used to increase intelligibility and comprehensibility with the American L-2 Russian speakers they either taught or hosted in their homes.

A total of eight L-2 subjects took part in this study. All were tested at the outset using the Oral Proficiency Interviews (OPI) in order to identify two beginners, two intermediate speakers, two advanced speakers and two superior-level speakers. Subjects ranged in age from 19-45. All have an L-1 of English and live in the US. For purposes of analysis, the beginning and intermediate learners were then combined into a group called "Intro Level 1 & 2," while the advanced and superior-level speakers were combined into a second group called "Advanced Level 1 & 2."

In Part I of the study, each L-2 speaker was recorded reading a low-intermediate-level text in Russian taken from the textbook В пути. Recordings were then played for all L-1 respondents who were asked to rate and identify non-normative forms they heard speakers produce. Forms were classified as three non-technical categories: 1) sounds; 2) words; and, 3) speech (sentence structure). Respondents were asked to rate each form on a scale of 1-3, with "1" being a frequent or highly frustrating error, "2" occurring occasionally or causing mild concern, and "3" occurring infrequently or not causing significant concern. Errors were then evaluated based according to grammatical type (i.e. sounds, words or speech/sentence), L-2 learner-level and listener group.

In Part II of the study each L-2 speaker spontaneously spoke in Russian for no more than three minutes about the topic "My Family," for which each individual was asked to answer five questions, so as to ensure that each narration had the same basic structure. The five questions the students were asked to address were:

1) Кто в Вашей семье? (Who are the members of your family?);

2) Кто эти люди по профессии? (What do they do for a living?);

3) Где они живут (Where do they live?);

4) Что они любят делать, когда есть свободное время? (How do they spend their free time?);

5) Расскажите об одном смешном случае, который произошёл в Вашей семье (Tell about a funny story that happened in your family).

Finally, in order to compare L-1 and L-2 Russian speech, a further control group was created that was made up of 20 ethnic Russian speakers from outside the capital cities, including Russians from the former Soviet republics. These speakers read the same text as the L-2 speakers and their speech was also evaluated by the 51 native Russian listener group.

Research Question I – Conclusions

I. L-2 Production Rated Most Distracting by Linguistic Categories

Based on L-1 listener responses, I learned that non-native Russian speakers of all proficiency levels who fail to distinguish sufficiently the softness in *ль* (‘l’) and other paired consonants, and instead pronounce these sounds with minimal or no palatalization, negatively impact Russian native-speaker intelligibility of their L-2 oral speech. Indeed, this error was not only judged as the most serious in the “sounds” category, but it was also rated as having most interfered with overall L-1 intelligibility when combined with all of the errors in the “sounds,” “words” and “speech” categories. Specifically, Russians in Russia and in the US, teachers and non-teachers of Russian as a Second Language, Russians who have and have not had prior contact with Americans, and English-speaking

and non-English-speaking Russians were all frustrated the most by non-natives who, regardless of their Russian proficiency level, failed to soften consonants when necessary.

"Incorrect stress" of both words and sentences was judged as the most serious error in the "words" category. Specifically, Russians in the US, non-teachers of Russian as a Second Language, Russians who have not had prior contact with Americans and Russian speakers of English concluded that the speech of beginning, intermediate and advanced-level L-2 learners who spoke with incorrect word stress interfered the most with their intelligibility of non-native speech. By contrast, Russians in Russia, teachers of Russian as Second Language, Russians who have had prior contact with Americans and Russians who do not speak English found that that incorrect stress was a problem affecting their intelligibility of Level 2 and 3 speakers, but not so strongly of Level 1 or Level 4 speakers.

My findings that incorrect stress placement by L-2 speakers affects L-1 intelligibility of non-native speech support those of Gallego (1990) who concluded that communication broke down in classrooms when International Teaching Assistants (ITAs) made frequent word stress errors. Other researchers such as Tyler, Jeffries and Davies (1988) and Hahn (2004) arrived at similar conclusions. Hahn, for instance, concluded that stress placement has a substantial impact on L-1 listener intelligibility of non-native English speakers.

Although L-1 listeners did not note instances of incorrect stress placement by Level 4 speakers, repetition of first syllable, pauses in words and pronunciation of words in segments, all interfered in similar degrees with how respondents perceived superior-level speech. In particular, Russians in Russia, non-teachers of Russian as a Second

Language, Russians who have had prior contact with Americans and Russians who do not speak English all judged repetition of the first syllable of a word, for example, «от-открыть», as having interfered the most with their intelligibility of Level 4 speech. Conversely, Russians in the US, teachers of Russian as a Second Language, Russians who have not had prior contact with Americans and Russians who speak English concluded that pauses within the pronunciation of a single word interfered the most with their intelligibility of Level 4 L-2 speech.

Considering the third and final category, "speech" (sentence structure), all respondents stated that incorrect intonation interfered most with their intelligibility of L-2 discourse. Although listeners in all eight groups concluded that incorrect L-2 intonation had indeed negatively affected their intelligibility of non-native speech, their opinions differed regarding speaker levels and degree of interference. Russians in Russia and Russians who have had prior contact with Americans expressed the view that incorrect intonation interfered with their intelligibility of Level 1, 2, 3 and 4 L-2 speakers, while for non-teachers of Russian as a Second Language and Russians who do not speak English observed that incorrect intonation affected their intelligibility of Level 1, 2 and 3 speakers. Russians who have not had prior contact with Americans rated non-normative intonation as having interfered with their intelligibility of L-2 speech by Level 1 and 3 speakers. However, incorrect intonation by Level 2 and 3 speakers affected the way that Russians in the US and Russians who do speak English perceived non-native speech. For teachers of Russian as a Second Language non-standard intonation negatively influenced their intelligibility of all categories of L-2 speakers, except Level I.

The fact that all of the respondents in the eight listener groups determined that incorrect intonation played a role in their intelligibility of L-2 provides evidence of the need for attention to intonation in the Russian language classroom. Russian L-1 listeners rely on intonation patterns for the communication of meaning; American L-2 Russian speakers, unable to produce adequate Russian intonation, experience difficulty with the overall native-speaker intelligibility of their speech.

For several groups of native listeners, incorrect L-2 speech rate was also observed to interfere significantly with their intelligibility of L-2 speech among Level 1 and/or 4 speakers. Both Russians in the US and Russians who speak English, for example, rated non-native rate of speech as interfering with their intelligibility of Level 1 and 4 speech, while teachers of Russian as a Second Language reported that speech rate and intonation affected their opinion of Level 1 speech. Conversely, non-teachers of Russian as a Second Language and Russians who have not had prior contact with Americans determined that non-normative L-2 speech rate interfered with their intelligibility only with Level 4 speech.

My research findings regarding the connection between intelligibility and speech rate reflect a degree of support for those of Llurda (1995), who determined that speaking rate is the single most important factor affecting L-1 English-speaker intelligibility of non-native speech. One can assume that the faster the L-2 speech rate, the less accurate non-native pronunciation might become, thus interfering with L-1 intelligibility. However, in the present study many of the respondents noted that the slower speech rate of Level 1 speakers actually interfered with their intelligibility of L-2 discourse. One possible explanation of the speech rate effect may lie in the importance for understanding

the general meaning of a Russian sentence of sentence level intonation, which is critical for distinguishing topic (tema) from comment (rhema) in the Russian sentence. With the loss of basic sentence intonation, the Russian listener is at risk of being able to identify the main idea of the sentence. Moreover, my findings show that L-1 attitude to slow speech rate does not depend on native-speaker experience listening to L-2 speech. This conclusion is based on the fact that the L-1 listeners who rated slow Level 1 speech rate as having interfered the most with L-2 intelligibility were Russians who live in the US, teachers of Russian as a Second Language and Russians who speak English.

II. Distribution of Findings by Speaker Groups

By examining the linguistic inaccuracies most prevalent within each learner level, one learns that Level 1 speakers produced the greatest number of salient non-normative forms in the "speech" (sentence structure) category. It is possible to hypothesize that since beginning-level students of Russian are very focused on the production and comprehension of individual sounds and words, they have little attention for intonation, speech rate, avoiding pauses or speaking with emotion. It would appear that at this level, L-2 speaker attention is focused primarily on producing and identifying words and sounds at the syllabic level.

Level 2 speakers were found to have the highest degree of salient non-normative production at the lexical level, which perhaps reflects their developing L-2 knowledge. One might hypothesize that this effect is connected with L-2 speaker attempts to express themselves with longer strings of words, opening the door for inaccuracies on the level of

individual word choices that are not yet fully active or fully controlled from the point of view of pronunciation and stress.

Native respondents noted that Level 3 speakers were observed to produce the largest number of salient non-native forms on the level of phonemes and morphological forms. Thus, incorrect Russian pronunciation habits are in evidence even at Level 3.

By contrast, L-1 listeners determined that the speech of Level 4 speakers did not present significant numbers amount of salient examples of non-native production in "sounds," "words" or "speech" categories. While the researcher was able from a technical point of view to identify certain non-native forms in the speech of the Level 4 sample, the key finding here is that these technical flaws did not rise to the level of salience for any of the L-1 listener groups.

III. Distribution of Findings by Listener Groups

Of all the listener groups only Russians who do not speak English thought that Level 1 speakers used sounds more incorrectly than words or speech; all other respondents judged beginning-level speakers to have made the highest number of errors in speech use.

Respondents in all listener groups concluded that Level 2 speakers had the most difficulty using Russian words correctly.

Russians in Russia and the US, non-teachers of Russian as a Second Language, Russians who have had prior contact with Americans, and Russians who do and do not speak English all concluded that the speech of Level 3 learners contained the most non-native Russian sounds. Conversely, teachers of Russian as a Second Language and

Russians who have not had prior contact with Americans did not share this opinion. Instead, these listeners determined that the speech of Advanced Level 3 speakers did not contain any non-normative Russian forms. Perhaps teachers of Russian as a Second Language made such a conclusion because they are very accustomed to hearing foreign speech, thus causing them to focus less on non-normative forms than other listeners without such previous contact. However, it is difficult to explain why Russian who have not had contact with Americans shared the same opinion as that of the teachers. No listener groups registered any non-normative linguistic forms produced by Level 4 speakers.

Thus, when examining the results of overall speech production by non-natives of all proficiency levels and L-1 intelligibility, one sees that there was a positive relationship between hard pronunciation of soft sounds and negative L-1 listener intelligibility among Russians in all listener groups. Specifically, L-1 listeners negatively perceived L-2 speech in which learners failed to distinguish sufficiently the softness in *ль* ('l') and other paired consonants, pronouncing these sounds instead with minimal or no palatalization. In addition, there was a positive relationship between extremely fast or slow L-2 speech rate and negative listener intelligibility among Russians in five respondent groups.

IV. Control Group Results

Although native Russian listeners did note several instances of non-standard "sounds," "words" and "speech" forms made by control group participants, the number of such forms was much lower than heard made by L-2 speakers of Russian. Data results show that native Russian listeners rated "lack of emotional expression" as having most

interfered with their intelligibility of speakers in the control group. I consider such a finding surprising, as I had anticipated that regional dialect forms such as “okan’e” or “akan’e” would interfere with native intelligibility of other L-1 speech. Since “lack of emotional expression” interfered with L-1 listener intelligibility of both native *and* non-native speech one may surmise that intonation does indeed significantly affect listener assessment of spoken language. Speaker attitude is normally encoded intonationally into native Russian speech production. Failure to do so obviously can leave the listener unsure of the full value of the utterance that they have just heard, even when the message is delivered by a native speaker who reads a text aloud in a perfunctory or in a manner inconsistent with the content of the text itself.

Research Question II – Conclusions

In the second part of my study the same eight L-2 speakers who had participated in Part I were recorded speaking spontaneously in Russian for no longer than three minutes on the topic “My Family.” The non-native speakers were given five questions to ensure that each narrative had the same basic structure. The questions the L-2 speakers answered were:

1) Who are the members of your family;
2) What do these people do for a living;
3) Where do they live;
4) How do they spend their free time;
5) Tell about a funny story that happened in your family.

The same listener groups were used for Part II that had been used for Part I. Respondents first listened to each recording and then noted instances when comprehension was complicated due to non-normative grammatical forms, incorrect word choice, incorrectly structured phrases, incorrect pronunciation or lack of lexicon. They were then asked to choose which of these elements made the oral speech of each American speaker of Russian incomprehensible and explain why they thought so. Thereafter, results were evaluated to learn what had most impeded L-1 comprehension and the reason(s).

I. L-1 Incomprehension Due to Incorrect L-2 Pronunciation

Incorrect L-2 pronunciation by speakers of all comprehension levels resulted in the largest number of cases of incomprehension for L-1 Russian listeners. For example, Russians in Russia and Russians who have had prior contact with Americans rated "incorrect pronunciation" as having impeded their comprehension of L-2 speakers of all levels. Non-teachers of Russian as a Second Language and Russians who have not had prior contact with Americans had the most difficulty understanding Level 2, 3 and 4 speakers with incorrect pronunciation. Russians in the US and Russians who do not speak English judged Level 2 and 3 as the most incomprehensible due to incorrect pronunciation, while Russians who do speak English gave this rating only to Level 3 and 4 speakers. Interestingly, for teachers of Russian as a Second Language incorrect pronunciation only impeded their comprehension of Level 3 speakers.

Based on the results of my research, one may conclude that a greater emphasis should be placed on teaching students of Russian correct pronunciation at all levels of

instruction. This recommendation is consistent with those of other researchers such as Celce-Murcia and Goodwin (1991), Castino (1996), Gonzalez-Bueno (1997) and Lord (2005) who found that formal pronunciation training is indeed beneficial to L-2 learners.

The research findings further underscore the importance of mastering the primary intonational contours of Russian, as well as word and sentence stress and word rhythm of the L-2. In this respect, several respondents in my study noted that incorrect intonation severely impedes L-1 comprehension when listening to non-native speakers. One L-1 Russian respondent remarked that Americans who speak Russian with incorrect intonation are difficult to understand because, "It seems that their sentences have no ending to them." Several informants expressed concern at not being able to clearly distinguish a statement from a question within the L-2 speech production of this study. This finding confirms Leed's (1965: 14) claim that, "The American's feeling of awkwardness is not mitigated by the phonetic problems arising from the nature of pitch /4/ itself in Russian. There is a much greater distance between /1/ and /4/ under normal conditions. English is unusually monotonous in this respect. It is, therefore, difficult for the student to make the required jump in pitch.

II. L-1 Incomprehension Due to Incorrect Word Choice

Incorrect word choice by L-2 Russian speakers was chosen by six of eight groups of listeners as having interfered with comprehension, making it the second most serious cause of misunderstanding after pronunciation. Teachers of Russian as a Second Language, for example, had difficulty understanding Level 1, 2 and 4 speakers who used words incorrectly. Alternatively, Russians in the US, Russians who have not had contact

with Americans and Russians who do not know English rated Level 1 and 4 speakers as incomprehensible due to incorrect word choice. Non-teachers of Russian as a Second Language, however, only rated incorrect word choice as hampering their comprehension of Level 1 speakers, while Russians who have had contact with Americans judged incorrect word choice to negatively affect their comprehension of only Level 2 speakers.

One source of L-1 listener incomprehension was caused by speakers using words that had double meanings in Russian such as *папа – маленький человек* [Dad is a little guy], which could have been a description of his height or job status. Another word choice that contained a double meaning was *Брат любит бегать много* [Brother likes to run a lot], leading some listeners to wonder whether the speaker's brother is a runner or leads a very active lifestyle.

Another source of confusion for native Russian listeners was caused by L-2 speakers of all levels who incorrectly used collocations, or word sets. One beginning-level Russian speaker said, for example, *профессор маленьких детей* [professor of small children], instead of *учитель/воспитатель маленьких детей* [kindergarten/grade school teacher of small children]. An advanced-level speaker caused confusion among L-1 listeners after saying *воспринимать кислоту* [to perceive acid] when the speaker's intended meaning was *принимать наркотики* [to take drugs]. Finally, a superior-level speaker who meant to say *автобусная остановка* [bus stop] instead used the term *автобусная станция* [bus depot], which also confused L-1 listeners as to what the speaker's intended meaning was.

The above examples suggest clear L-1 interference in the production of non-normative collocations by L-2 speakers of all proficiency levels. This finding is

consistent with that of Sadeghi (2009) who also learned that most collocation problems can be attributed to negative L-1 transfer, regardless of the speaker's proficiency level, and of Neselhauf (2003).

III. L-1 Incomprehension Due to Non-Nativelike Sentence Structure

Four (of eight) listener groups rated incorrectly formed phrases by L-2 speakers as having interfered with comprehension, making it the third most noted source of incomprehension after pronunciation and incorrect word choice. Specifically, Russians who speak English rated incorrectly formed phrases by Level 1 and 2 speakers as resulting in incomprehension, while Russians in Russia, non-teachers of Russian as a Second Language and Russians who have not had contact with Americans determined that only Level 2 speakers formed phrases that interfered with comprehension. Perhaps Russian speakers of English had more difficulty than the other groups comprehending non-nativelike sentence structures by two groups of speakers because they are more pedantic than other listeners in their assessment of L-2 speech.

Many instances of incorrectly formed sentences resulting in incomprehension were due to L-2 speakers translating phrases directly from English into Russian. A Level 1 speaker said, for example *Когда у неё есть школа* [When she has school], which left a great number of respondents confused about the speaker's intended meaning. If, however, the L-2 had said *Когда у неё есть уроки* [When she has classes], seemingly, Russian listeners would not have had difficultly comprehending the speaker's message. Direct translation from English caused a Level 2 speaker's phrase also to be incomprehensible by many respondents. The speaker said *Колорадо очень красиво сделать всё это*

[Colorado is a great place to do all those things]. Although in her previous sentence the speaker did in fact mention which types of sports activities she and her family like to do in Colorado, listeners were still confused by the use of *всё это* [all that], and often asked, "What does she mean by that?" Still another incorrect sentence produced by a Level 2 speaker who also directly translated from English into Russia was *У меня очень маленькая семья, только мама, папа, сестра и я. И собака тоже* [Our family is small – just mom, dad, my sister and me. And a dog too.].Although this phrase would have been comprehensible in English, it left many respondents saying «*И собака тоже что?»* [And the dog also what?]. Not surprisingly, the listeners who had the most difficulty understanding this sentence were Russians in Russia and non-teachers of Russian as a Second Language.

IV. L-1 Incomprehension Due to Fillers and Hesitation Devices

Several of the L-2 speakers who participated in my research used fillers and hesitations devices excessively, which resulted in L-1 listeners forming negative opinions about these speech samples. For instance, all but one of the Russian respondents were very frustrated at hearing a speaker repeatedly say *значит* [so], because, according to some listeners, repetition of this word made the speaker seem "uncultured." Similarly, L-1 listeners were frustrated when they heard non-natives constantly drawing out sounds (e.g. "a-a-a-a-a-a-a-a-a-a-a") as they searched for their next word. One listener summed up the opinion of many others when she commented, "I wanted to plug my ears and turn off the recording. I couldn't stand it anymore!" Thus, based on listener reactions to L-2 speaker use of inappropriate fillers and hesitation devices, I support Dornyei and

Thurrell's (1994) claim that, although such "tools" are invaluable aides in communication, they should be used in moderation.

Thus, based on the results of this research, one learns that there was a positive relationship between incorrect L-2 pronunciation and L-1 listener incomprehension, as respondents in *all* listener groups rated L-2 speech pronounced incorrectly as incomprehensible. Additionally, six listener groups concluded that incorrect word choice hampered their ability to comprehend L-2 Russian speakers. These groups included: Russians in the US, teachers and non-teachers of Russian as a Second Language, Russians who have and have not had contact with Americans and Russians who do not know English. Finally, incorrectly formed L-2 phrases led to incomprehension for four of the eight listener groups, specifically English-speaking Russians, Russians in Russia, non-teachers of Russian and Russians who have not had prior contact with Americans.

I incorrectly hypothesized that only Russians in Russia, Russians who have not had prior contact with Americans and Russians who do not know English would have difficulty understanding non-native speakers with both incorrect pronunciation and word choice. However, I was greatly surprised by the fact that incorrect L-2 pronunciation resulted in incomprehension for listeners in all groups, while incorrect word choice led to incomprehension for six listener groups, of which Russians in Russia was not one.

A further research finding relates to advanced L-2 speakers and error salience. In general, the more advanced L-2 speakers are, the more language they produce and, therefore, the greater the likelihood that they will make errors. However, the results of this study show that the more advanced the L-2 speaker, the fewer the number of salient errors made across all groups of listeners. Exceptions, however, were noted for

collocations and word choice where the scores of Advanced Level 3 speakers were actually higher than those of Level 4 speakers, as well as for pronunciation where errors were more salient for Introductory Level 2 speakers than for those of Level 1. This salience finding is consistent with results reported by Kim Fedchak (2007), in which collocational salience increases as speech acts at this level are increasingly "high-stakes."

Research Question III – Conclusions

The third and final part of the study investigated the types of locutionary tactics and naturalistic communication strategies used by native-speaking teachers of Russian as a Second Language and Russian host families of American students to comprehend American students of limited proficiency. Eighteen (18) teachers were interviewed and eight home-stay family hosts were interviewed for this portion of the study, all of whom had participated in previous parts of the survey.

Teachers were asked to recall one student with poor knowledge of Russian grammar, as well as another student with poor Russian pronunciation. Thereafter, each teacher first wrote down the techniques s/he had used to help the students improve their poor grammar or pronunciation. Each teacher then wrote whether these techniques had been effective and why or why not.

A similar questionnaire was given to Russian host families who were asked to think of one specific situation when there had been a communication break down with an American student they hosted either due to the student's poor Russian grammar or pronunciation. Host families then enumerated which techniques they had used to understand the student and whether they had been effective and why or why not.

I. Techniques Used By Teachers of Russian as a Second Language

The results of my ethnographic research indicate that improving poor L-2 pronunciation and grammar is very much a joint effort requiring effort on the part of teachers, students and students *and* teachers together. Teachers, for example, must specifically focus the attention of their students on difficult L-2 elements. Students, on the other hand, must possess certain learning strategies that they employ when studying a L-2. Finally, students and teachers must make a joint effort and be able to work well together to achieve the goal of improving L-2 pronunciation and grammar.

Teachers of both grammar and phonetics remarked that they make a great effort to explicitly focus the attention of their students on areas that cause difficulties for L-2 Russian speakers. For example, teachers of phonetics mentioned describing and comparing the pronunciation differences of Russian hard and soft consonants, while grammar teachers explain specific aspects of the Russian grammar system that they know often prove difficult for students. Regardless whether pronunciation or grammar is being taught, teachers know that students who are learning Russian as a L-2 need plenty of theory and time to practice the material presented.

Teachers also stated that engaging in activities together with students also provides an effective way to improve L-2 pronunciation and grammar. As far as the types of activities that teachers and students engage in together, phonetics teachers reported having students repeat difficult or incorrectly pronounced words, sounds or phrases immediately after them. Grammar teachers stated that they use pair work with their students, as well as have students think of associations to go along with drawings used in class.

When asked to comment on how effective the above techniques had been in strengthening L-2 pronunciation, grammar and sentence structure, the teacher-informants stressed that this depends upon the students themselves and the types of learning strategies they possess. When recalling different students with poor Russian pronunciation or grammar, they also asserted that motivation and seriousness of purpose are necessary for L-2 learners to improve. This finding is consistent with those of Macnamara (1971) and Reiss (1981: 123) who contended that the "'good' language learner has high motivation to communicate, no matter where s/he is."

The teacher-informants noted the role student inhibitions (similar to Krashen's "affective filter") play in improving their L-2 pronunciation or grammar knowledge based on the types of activities often used in class. Specifically, teachers stated often using different pronunciation exercises for which students need to sing certain words, a task that is very awkward for inhibited students. Thus, I support the claim by Rubin (1975) and Reiss (1981) that when students are uninhibited they are willing to make mistakes in order to learn to communicate.

II. Techniques Used By Russian Host Families

Russian host family informants also reported using a wide variety of techniques and communication tactics to communicate with Americans of low linguistic proficiency. Some families, for example, mentioned using a Russian-English dictionary, writing down sentences for students or asking questions that forced the L-2 learners to give short and precise answers, instead of lengthy and complicated ones. Others noted that they helped their American students understand words with difficult pronunciation by drawing

pictures of those items, acting out words using gestures or mimicry or holding up different things, as they slowly and clearly pronounced the name of each item. One Russian host who used this tactic insisted doing so because, in her opinion, it is important for L-2 learners not only to hear the pronunciation of Russian words, but also to see the item or even hold it, thus helping learners remember how to pronounce names of things when they see them again.

Based on the fact that only one type of strategy – i.e abandonment of a topic altogether – turned out to be ineffective, one may conclude that the key is not *what type* of communication tactics Russian host families use when dealing with Americans, as all the effective types mentioned worked equally well. Instead, it is more important for host families to simply use *some kind* of tactic to foster communication with their American student, rather than giving up on communication with them entirely. Thus, when host families are pro-active and employ some type of strategy to converse with their host students, and the Americans learners put forth an effort to understand, communication takes place, regardless of what is taught and how it is done.

Thus, I incorrectly hypothesized that teachers of Russian as a Second Language and Russian host family hosts will vary the types of strategies used depending on the language ability of the learner. On the contrary, my findings show that L-1 speakers use the same types of strategies with all learners, regardless of the ability or lack thereof of the learner. However, whether strategies prove to be successful depends largely on the effort made by L-1 speakers to teach, as well as the L-2 learner and that individual's personality (i.e. inhibited/uninhibited), as well as motivation to become proficient in the L-2.

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Appendix 1: Instructions for Participants

Спасибо, что Вы согласились участвовать в этом проекте, который ставит своей задачей сравнить, чем отличается речь студентов с правильным произношением и/или правильной грамматикой русского языка всех уровней (от начинающего до продвинутого) от речи студентов, у которых неправильное произношение и/или неправильная грамматика русского языка. Кроме того, исследуется, какие способы применяют носители русского языка, чтобы понять американцев. Вы прослушаете каждую из восьми записей, половина из которых будет прочитана американцами всех уровней русского языка с плохим произношением, а половина – с хорошим произношением. После прослушивания каждой записи, поставьте галочки рядом с теми ошибками, которые Вы услышали. (Если Вы услышите ошибки, которые не указаны, Вы можете вписать свои варианты.) Затем решите, какие три ошибки больше всего мешали пониманию произношения и поставьте рядом с ними цифры «1», «2», «3», учитывая, что «1» отражает самую грубую, на Ваш взгляд, ошибку. После этого, Вы прослушаете каждую из восьми других записей свободной речи американскими студентами на тему «Моя семья». Половина из записей будет прочитана студентами всех уровней русского языка с плохим произношением, а половина – с хорошим произношением. Решите, мешали ли Вашему пониманию неправильная грамматика, неправильно построенные фразы, неправильный выбор слов и/или неправильное произношение. После прослушивания каждой записи, ответьте на поставленные вопросы.

Appendix II: Text Read by Male L-2 Russian Speakers

Я так рад, что наконец мы с Лёней сняли квартиру! И такую хорошую! Вы даже не представляете! Нам с ним ужасно надоело жить в общежитии, а квартира нам сразу понравилась. Она очень уютная и чистая, с мебелью, в тихом районе. В ней недавно сделали ремонт, и платим не очень много. Теперь расскажу подробно.

Во-первых, у нас есть гостиная и маленькая кухня. В гостиной мы поставили диван, два кресла, журнальный столик и телевизор, положили ковёр. У нас теперь есть кабельное телевидение, и по вечерам мы смотрим передачи. На кухне микровалновая печь, новая плита, довольно старый холодильник и шкафчики. Так что есть куда поставить посуду. На кухне стоит ещё маленький столик, за которым мы едим. Мы оба очень довольны кухней.

Во-вторых, теперь у меня есть своя спальня, своя ванная и туалет. В спальне я поставил кровать, конечно, комод и письменный стол, за которым я занимаюсь. Над комодом я повесил зеркало, а над письменным столом – карту мира. По-моему, получилось очень хорошо и красиво!

В-третьих, у нас теперь есть большой балкон, с которого чудесный вид на весь город! Красота какая! Там мы с Лёней разговариваем, отдыхаем и просто смотрим на людей, которые проходят мимо нашего дома.

С соседями нам тоже повезло. Этажом выше живёт очень приятная молодая семья, а этажом ниже – тихая и скромная пожилая женщина. Так что у нас всё хорошо!

Appendix III: Text Read by Female L-2 Russian Speakers

Я так рада, что наконец мы с Лизой сняли квартиру! И такую хорошую! Вы даже не представляете! Нам с ней ужасно надоело жить в общежитии, а квартира нам сразу понравилась. Она очень уютная и чистая, с мебелью, в тихом районе. В ней недавно сделали ремонт, и платим не очень много. Теперь расскажу подробно.

Во-первых, у нас есть гостиная и маленькая кухня. В гостиной мы поставили диван, два кресла, журнальный столик и телевизор, положили ковёр. У нас теперь есть кабельное телевидение, и по вечерам мы смотрим передачи. На кухне микровалновая печь, новая плита, довольно старый холодильник и шкафчики. Так что есть куда поставить посуду. На кухне стоит ещё маленький столик, за которым мы едим. Мы обе очень довольны кухней.

Во-вторых, теперь у меня есть своя спальня, своя ванная и туалет. В спальне я поставила кровать, конечно, комод и письменный стол, за которым я занимаюсь. Над комодом я повесила зеркало, а над письменным столом – карту мира. По-моему, получилось очень хорошо и красиво!

В-третьих, у нас теперь есть большой балкон, с которого чудесный вид на весь город! Красота какая! Там мы с Лизой разговариваем, отдыхаем и просто смотрим на людей, которые проходят мимо нашего дома.

С соседями нам тоже повезло. Этажом выше живёт очень приятная молодая семья, а этажом ниже – тихая и скромная пожилая женщина. Так что у нас всё хорошо!

Appendix IV: Evaluation Sheet for L-2 Speaker Readings

Оценка произношения студентов (чтение текста)
Пожалуйста, оцените неправильность произношения и построения фраз, отметив галочками категории, в которых допущены наиболее грубые, на Ваш взгляд, ошибки.
Пожалуйста, оцените их по трёхбальной системе по степени неправильности, считая, что 1 – низшая оценка.
Какие ошибки Вы услышали?

Звуки:

- □ Глотание звуков _____
- □ Добавление лишних звуков в словах_____
- □ Добавление «о» после предлога _____
- □ Замена одного гласного звука другим _____
- □ Смягчение согласных_____
- □ Неправильное произношение твёрдых согласных____
- □ «Твёрдое» произношение звука «**л**» и других согласных _____
- □ Неправильное произношение шипящих _____
- □ Оканье _____
- □ Аканье _____

Слова:

- □ Изменение слов _____
- □ Паузы в словах _____
- □ Повторение первого слога _____
- □ Произношение слов по частям _____
- □ Ударение _____

Речь:

- □ Темп речи _____
- □ Отсутствие знаков препинания _____
- □ Интонация _____
- □ Эмоциональная окраска _____

Другие:

_____

Звуки:

- □ Глотание звуков _____
- □ Добавление лишних звуков в словах_____
- □ Добавление «о» после предлога _____
- □ Замена одного гласного звука другим _____
- □ Смягчение согласных_____
- □ Неправильное произношение твёрдых согласных____
- □ «Твёрдое» произношение звука «**л**» и других согласных _____
- □ Неправильное произношение шипящих _____
- □ Оканье _____
- □ Аканье _____

Слова:

- □ Изменение слов _____
- □ Паузы в словах _____
- □ Повторение первого слога _____
- □ Произношение слов по частям _____
- □ Ударение _____

Речь:

- □ Темп речи _____
- □ Отсутствие знаков препинания _____
- □ Интонация _____
- □ Эмоциональная окраска _____

Другие:

_____

Appendix V: Participant Questionnaire for L-2 Spontaneous Speech

Возрастная категория:

20-25 _____
26-30 _____
31-35 _____
36-40 _____
41-45 _____
46-50 _____
51-55 _____
56-60 _____
61-65 _____
66-70 _____
71-75 _____
76-80 _____

Пол _____

Город проживания _____

Профессия _____

Общались ли Вы раньше с американцами в России? _____

Если да, сколько примерно человек? _____

Запись студента (свободная речь)

1. Были ли случаи во время рассказа, когда общий смысл был непонятен из-за неправильной грамматики, неправильно построенных фраз, неправильного выбора слов и/или неправильного произношения? Если да, запишите конкретные примеры, которые Вы услышали.

_____

_____

_____

2. Что, по-Вашему, больше препятствовало пониманию: неправильная грамматика, неправильно построенные фразы, неправильный выбор слов и/или неправильное произношение и почему?

_____

_____

_____

Appendix VI: Transcribed L-2 Speaker Texts

Speaker #1

У меня есть мама, папа и 3 сестры. Мама учительница и папа преподаватель и моя сестра студентка. Они живут в Конектикуте и моя папа живёт в Калифорнии. Они любят делать, когда есть свобод- время. Они играли в теннис и мама любит готовить, и моя сестра играет в шахматы. Один день моя сестра забыла юбку школы дома, когда у ней есть школа. И это очень смешно, смешная.

Speaker #2

В моей семье у меня есть папа, мама, сестра и кошка, которая зовут Анна. Моя мама – медсестра. Она работает в больнице и моя папа работать в Америке и моя сестра не работает. Она студентка в университете в четвёртом курсе. Она хочет стать профессором маленьких детей. Они живут в Вирджини в очень маленьком городе. Моя мама и моя сестра очень любят читать, когда есть свободное время. Мой папа не люблю читать. Он никогда не читает книгу. В семье мы скажем, что он не может читать. Это не правда, но– Мой папа взял мою сестру на свою работу и моя сестра очень большая, она очень высокая и мой папа – не очень и людей, которые работают с моём папом сказали, что мой папа очень маленьком человеком и он работает сейчас в этом компании и людей сейчас ещё скажут, что он очень маленький.

Speaker #3

У нас четвер, четверэ, четверэ в моей семье, семьэ, семье: мама, папа и сестра. Сестра её зовут Кристина и она живёт в Мэриленд. Мать и отец живёт, живут в Колорадо и они не работают. Но сестра работает в- как профессор в университет Мэриленда и у- ей 25 лет. Всё семья любят ходить пешком в горы и быть с-, быть в, быть в горы. Когда у нас свободное время, мы всегда ходит пешком в горы и зэмой, зимой мы катаемся на снег. И Колорадо очень красивый сделать всё это. Одну, один раз, когда я по-по- поехала к сестре я, я была в поезде и я хотела перес- перевыехать, выйти из поезде, от поезде в Вашингтон DC, но я вышла в другой пересадка и поэтому моя сестра, ей нужно, ей нужно водить, водила ко мне и перевёт- -везла, перевезла меня к ей, к ней, к ней.

Speaker #4

Хорошо. У меня очень маленькая семья – только мама, папа, сестра и я. И собака тоже. Папа мой он работает менеджером в фарметической компании

исследовательской, а мама она работала преподавательницей английской литературы до того, что я родилась, а когда я родилась она стала быть дома. Она сидела дома со мной. Они живут, живёт моя семья в Филадельфии, в городе Филадельфия, а я с ними живу. Мы живём в маленьком пригороде. Это, может быть, 15 минут от города, из города. В свободном времени папа очень любит читать, и мама тоже любит читать, но она больше любит, ну, гулять с друзьями или ходить в кафе, наверно, а папа любит быть дома и читать книги. Сестра моя она очень любит быть с друзьями тоже и смотреть фильмы, а я люблю читать. Сестра моя старше меня на двух с половиной года. Она учится в Северной Каролине в колледже Дэвидсон. Она хочет стать врачом и работать в Африке. Тоже у меня собака. Она очень смешная и большая. Это пудель. Она очень трусливая, очень смешная собака. Однажды вот наша собака, ну, она всего боится. Она боится дожди, она боится травы, она боится темноты, и однажды мы думали, что, может быть, есть вор у нас дома помоту что мы слышали, что что-то падало ночью на 1-ом этаже, и поэтому мы думали, ну вот у нас такая большая собака, наверно, она-страшно будет вору, и поэтому все шли на 1-ый этаж, чтобы узнать, что случилось, а вот собака она последней пошла за нами, потому что боялась. Никак не помогли нам. К сожалению, нет, к счастью никого не было там, но- .

Speaker #5

Аааaа, у меня не маленькая, не большая семья. В моей семье 5 человек: у меня мама, папа, аааа, мммм, старший брат и младшая сестра. Мои родители, всё-таки, живут в городе, где я родился. Город называется Брин Мар. Но мой брат теперь живёт в штате Калифорния, он учитель в школе. Но моя сестра живёт недалеко отсюда в маленьком городе, называется Истон в штате Пенсильвания и она студентка**.** Она скоро будет жить в большом городе, в Нью-Йорке. Она хочет стать адвокатом. Мой мама, моя мама работает в небольшом университете, он недалеко отсюда. Я тоже там работаю. У моего папы работы, может быть, три. Он врач по профессии, но он хочет стать бизнесменом и другие [inaudible] также. Когда у них свободное время, т.е. у моих родителей они, ну, просто любят сидеть читать, может быть. Но теперь я расскажу тебе смешную историю в моей семье. Когда мой брат, у которого нет жены, нет девушки и он познакомился с молодой девушкой, ему очень понравился она и они всю неделю гуляли вместе, но в конце недели он узнал, что она всё время воспринимала кислоту, то есть, наркотики. Смешно было.

Speaker #6

Аааaа, хорошо, у меня есть, конечно, мама, и один брат и одна сестра. Папа умер, может быть, три года назад, по-моему. Брат мой, он художник, он работает художником по профессии, и сестра она, сейчас она ещё студентка. Она занимается, чем она занимается? Не помню точно. Она занимается, час скажу, химия, по-моему. Не помню точно. Они, семья моя, они живут в штате Вашингтон. Это довольно далеко отсюда. И, да, там они живут. Мама ещё, она уже вышла на

пенсию, так что, она в принципе не работает, просто у дома. Она там занимается. Что они любят делать? Час скажу. Что они любят делать, когда есть свободное время? Когда есть свободное время, брат мой, у него есть двое маленькие дети. Он любит, не знаю, куда- где-то гулять с ними, с детьми. И сестра моя, она- Что она делат в свободное время? Может быть, просто сидит дома, смотрит телевизор. Не знаю точно. Она вышла замуж в декабре, так что они живут вместо. Они очень любят, сестра моя и её муж, они любят играть в карты. И что ещё? Ладно. Очень давно, когда в детстве, можно сказать, когда сестре было, я бы сказал, может быть, 8 лет, она решила, уходить, уехать куда-то, она хотела, не знаю почему, но она решила, что, может быть, жизнь было бы очень интересная в другом место, и когда папа узнал об этом, он спросил, он просил её остаться дома, никуда не, не, не, не уходить и, что случилось? Когда, она уже, как это сказать? Паковать? Она уже паковала её багажи и он хотел смотреть на то, что она- на чемоданы. И когда он открыл чемодан, он видел, что наша собака была там. Она упаковала нашу собаку.

Speaker #7

В моей семье есть жена, которую зовут Jenna и есть сын, которого зовут Issac. И у меня тоже родители и брат, который живёт в Айове. По профессии моя жена, в данный момент, она работает дома и следит за нашим ребёнком. Ему 16 месяцев. И по профессии мой брат преподаватель в школе, учитель, скажем, и тренер спортивной команды. И мой отец - физик. Где они живут? Живут они, родители живут в Бостоне и мой брат, как я уже сказал, живёт в Йове и мы с женой живём недалеко отсюда в городе Coatsville, под Филадельфией. Мой брат любит бегать много и мой отец, он смотрит на птиц, когда у него есть свободное время и мама болтает по телефону, когда у неё есть свободное время и жена работает в саду, или в огороде, скажем, сажает, всё время сажает овощи, особенно в данный момент весной. 12 лет тому назад, или может быть, это уже было 15 лет тому назад мы с братом были в России вместе и он жил в это время в Вологде, и я посетил его там и мы приехали в город, в маленький городок недалеко от Вологды, где есть монастырь и это было зимой и мы ходили вокруг старого кремля этого города, городка и бабушки там, или старушки мыли, стирали, стирали одежду в прорубе на озере. Это было действительно на озере поскольку лёд, т.е. зимой и всё и лёд был. И я попал в прорубь. Это было зимой и попал в прорубь. Ноги промокли и мы вернулись на автобусную станцию и нам пришлось ждать 3 часа вместе там на этой станции и не было отопления там. Но в конце концов мы вернуился домой, но я всегда помню, как мы ждали и ждали и ждали и у меня были мокрые ноги там на этой станции и это смешная история с братом.

Speaker #8

У меня небольшая семья. У меня одна младшая сестра и мама с папой. Мама с папой сейчас живут в Портлэнде. Это в штате Орегон. Это находится на западном берегу Америки. Значит, я там вырос, там очень красивое, на мой взгляд, место.

Красивый город такой. Не большой, но очень уютный. Есть там интересные места, природа рядом, там есть океан недалеко, есть горы, пустыни даже недалеко, лес совсем рядом. Так что, там мне очень нравится. Папа, значит, занимается тем, что по-русски, наверно, называется «консалтинг». Он работает с компаниями, фирмами, им помогает повышать эффективность, производительность. Он, в основном, работает с компаниями, которые работают через здравоохранения. Мама работает в детском садике, занимается детьми. Значит, у меня младшая сестра. Она сейчас уже замужем, живёт в Бостоне с мужем. Муж, значит, аспирант, он занимается науками. Сестра занимается тоже детьми, она тоже работает в детском садике. Так что, вот моя семья, небольшая, но они очень хорошие люди. Однажды мы собирались поехать в Англию. Так что, собрали все наши чемоданы, все наши вещи. Мы уезжали на, недели, недели на две, по-моему. Значит, собрали наши чемоданы, одежду на две недели, всё, что нужно было. Потом уехали. Полетели сначала в Лос-Анджелес и потом, или нет, ну, в Лос-Анджелес, а потом в Нью-Йорк. В Нью-Йорке потом, чтобы сесть на самолёт, надо было показать паспорта все наши. Когда мы залезли в чемодан, чтобы показать наши паспорта, мы вдруг нашли что их нету там. Мы рылись везде, везде искали то там, то там. Как-то нигде никак не могли найти их. В конечном счёте, мы не могли уехать. Как-то получилось так, что просто без паспортов, конечно, не принимают. Значит, очень так расстроились и мы проводили несколько дней в Нью-Йорке, а потом полетели обратно домой. И представляете? Мы нашли наши паспорта. Они там лежали на столе дома, на кухонном столе, там где мы их оставили. Всё подготовили, чтобы всё было готово к поездке. И вот забыли на столе наши паспорта. Так что, не знаю, насколько это смешно, но вот такая история.

Appendix VII: Questionnaire for Teachers of Russian as a Second Language

Вспомните одного из Ваших студентов с плохим знанием грамматики русского языка, которого Вы учили.

1. Сколько примерно лет было этому студенту? _____

2. Его/её пол? _____

3. Какие стратегии Вы использовали, чтобы понять студента и помочь ему/ей понять Вас?

_____

_____

_____

4. Оказались ли эти стратегии эффективными? Если нет, почему?

_____

_____

_____

Теперь вспомните одного студента с плохим произношением.

1. Сколько примерно лет было этому студенту? _____

2. Его/её пол? _____

3. Какие стратегии Вы использовали, чтобы понять студента и помочь ему/ей понять Вас?

_____

_____

_____

4. Оказались ли эти стратегии эффективными? Если нет, почему?

_____

_____

_____

Appendix VIII: Questionnaire for Russian Host Families

Пожалуйста, вспомните студентов, которые проживали с Вами. Был ли у Вас студент, у которого сначала было плохое произношение при разговоре на русском языке и/или плохое знание грамматики русского языка? Постарайтесь вспомнить одну ситуацию, когда вам было трудно понять друг друга.

1. Сколько примерно лет было этому студенту? _____

2. Его/её пол? _____

3. Как долго этот студент жил у Вас? _____

4. Вспомните один определённый случай, когда разговор не состоялся по причине плохого произношения и/или грамматически неправильно построенной фразы студентом. Какие стратегии Вы использовали, чтобы понять студента и помочь ему понять Вас?

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5. Оказались ли эти стратегии эффективными? Если нет, почему?

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