Intonational Characteristics of Persuasiveness in Serbian and English Political Debates

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Résumé

Le but de cette étude est de déterminer les caractéristiques intonatives du discours politique persuasif en serbe et en anglais, par une analyse perceptive et acoustique de dix discours de débat politique dans les deux langues. Les résultats montrent que l'auditoire serbe relie la persuasion à différents facteurs extra-linguistiques lorsque il s'agit de locuteurs serbes et anglais, alors que, en termes de traits prosodiques, cet effet peut être attribué à la déclinaison tonale et à la focalisation étroite. Pour les locuteurs serbes, la différence de persuasion est aussi reliée à des différences d'étendue de registre tonal, alors que ce qui caractérise la persuasion des politiciens britanniques est le choix des tons nucléaires.

Keywords : *political speech, intonation, persuasiveness, debate*

1. Introduction

Political discourse, especially in Serbia, takes up a large portion of public speech with the purpose of presenting facts, opinions and attitudes of speakers towards a particular subject. With a multitude of political parties and a significant number of pressing political and economic issues in existence in Serbia, it is not surprising that politics merits a great deal of public attention and media coverage in televison programmes in which representatives of different political parties are given an opportunity to discuss certain issues. Such programmes can supply a variety of useful examples of political discourse which, once analyzed in terms of their acoustic properties, should reveal some aspects of speech which, despite not always being immediately detectable by listeners, influence their perception of persuasive speech and may determine their attitude towards a particular speaker and values represented by the political party in question.

This study, performed as part of the author's MA thesis, will examine the intonational characteristics of this type of discourse and their relationship with persuasiveness in political speeches in Serbian and English as perceived by Serbian listeners, especially since

intonational functions other than informational and grammatical in the Serbian language are rarely researched. In addition, we would also like to point out the prosodic similarities and differences in the two languages and some possible reasons behind different perceptions of persuasiveness. More specifically, the purpose of this research is to answer the following questions :

- Which characteristics of the speaker and his expression influence the perception of persuasive speech the most ?
- What are the prosodic characteristics of persuasive speech ?
- What are the similarities and differences between the prosodic properties of Serbian and English political discourse ?

2. Previous research

Since, according to Vaissiere (2005), the controlled use of pitch in speech creates intonation and is manipulated by speakers in order to convey meaning on the discourse level, in order to « associate particular intonation patterns with particular constituents, depending on the discourse » (Wennerstrom 2001, 17), political speech presents a suitable ground for the research on the perception of supra-segmentals. The reason for this, as Braga & Marques (2004) have noted, is that political speech can be realized in terms of a prosodic code, consisting of supra-segmental elements, syntactic structures, lexical choices and pragmatic meanings.

Whether we consider it a speaking style (Llisterri 1992) or a discourse genre (Obin et al. 2008 ; 2010), whose prosodic features depend on the language being spoken (Obin et al. 2010), political speech in debates depends highly on sounding assertive and determined, which can be achieved through a selection of « lexical and propositional choices, rhetorical contributes, such as metaphors, irony » (Braga & Marques 2004, 231), although, they add, it is best defined by the use of « prosodic strategies manipulating tone, rhythm, duration, accent and energy [...] conveying pragmatic meanings » (Braga & Marques 2004, 231). While we should mention that political speech has been researched in terms of perceived speakers' charisma (Rosenberg & Hirschberg 2005 ; Biadsi et al. 2007), and public speaking skills (Strangert 2005 ; 2007 ; Strangert & Gustafson 2008b), the analysis of spontaneous political speech of 6 speakers in terms of global F0 values, focus, prosodic phrasing and pauses (alongside non-prosodic pragmatic and lexical phenomena) performed by Braga & Marques (2004) found correlations between different prosodic cues and assertion, refutation, emotion and rhetorical questioning in political debates, while no definite correlation was found for irony and ridicule. Working on a French corpus of political speech, Touati

(1991 ; 1994) analysed similar prosodic cues and reached the conclusion that French political speech is characterized by « focal accent, contrast in pitch range, and the use of pauses » (Touati 1991, 216), while in his 1994 study he turned to the difference between pre-electoral and post-electoral political rhetoric, showing differences in several global F0 cues, most importantly in F0 range. In relation to political speech, we should also note that it is the F0 dynamics, disfluencies, hesitation pauses, and speech rate that affect the perception of a good speaker most (Strangert & Gustafson 2008a), a result not much different from Rosenberg & Hirschberg's (2008) conclusion that charisma judgments depend significantly on acoustic cues including, among other things, higher mean and standard deviation of pitch, as characteristic of a « more engaged and lively style of speech » (Rosenberg & Hirschberg 2008, 653).

Even though acoustic phonetic research into Serbian political speech is scarce, if a comparison is to be made between English and Serbian accentual prosodic systems, it should be noted that languages are often divided into *intonation* and *pitch-accent* languages (Smiljanić, 2004), or languages that do not have lexical stress, those without an obligatory word stress and those who do have it (Trouvain & Gut, 2007). Serbian has a combined prosodic system, which uses stress and tone to achieve syllable markedness, making it a « pitch-accent language with lexical stress » (Smiljanić 2004, 18), in which every word (apart from clitics and prepositions) has one stressed syllable, bearing one pitch-accent. Serbian thus has a pitch accent system with two main pitch accents, *falling* and *rising*, which, combined with Serbian distinction between long and short vowels, create four pitch accents : *long falling*, *long rising*, *short falling* and *short rising*, « each defined by a characteristic pitch shape, as well as by stress, whose correlate is increase in duration » (Zec & Zsiga 2010, 1). In their seminal work on Serbian intonation, Lehiste & Ivić (1986) researched the intonation patterns of different sentence types, emphasis and focus, a topic also pursued by Baumann et al. (2006, 2007), who distinguished between narrow focus (including contrastive focus as a sub-type, used to correct previously stated information) and broad focus, and tried to reveal which strategies can be used for marking focus, dividing them into *discrete* and *gradient* means.

However, it is our opinion that by using the notion of focus, a study of spontaneous Serbian political speech can provide new information about the type of discourse which has not recieved sufficient attention in acoustic analyses of Serbian, while a comparison with British political speeches can reveal more about how this discourse type varies depending on the prosodic system in question.

The next section will present the methods used to obtain this information in this research.

3. Methodology

3.1.   Audio tokens

The corpus selected for this study consisted of 5 Serbian and 5 British tokens of political speech extracted from different televised debates in Serbia and Great Britain, with the duration of 21 to 30 seconds (mean 25.9s). The topics discussed by Serbian politicians included the upcoming elections, the electoral system and demographic politics, while the selected British speakers confronted their views on the topic of immigration, chosen as the one likely to provoke interest in Serbian listeners. All Serbian speakers were leaders of different political parties, but due to the prominence of 3 political parties in the UK, Liberal Democrats and the Labour Party had more than one representative in this research. All 10 speakers were male, as a precautionary measure of avoiding the prosodic differences between male and female speakers and each speaker was selected on the basis of a distinctive speaking style marked by a perceptibly different usage of prosodic and other linguistic cues. This was done to ensure sufficient variation between the samples in terms of prosodic content.

3.2.   Questionnaire and participants

To determine the effect of extralinguistic factors on the perception of speakers' persuasiveness, and the most and least persuasive speakers among the selected 10 tokens, 65 first year and 59 third year students (22 male, 101 female, 1 nonrespondent) of English language at the Faculty of Philosophy in Niš were asked to listen to the 10 tokens and fill out a questionnaire. Out of 124 participants, aged 18 to 25 (mean 20.2) and with the average duration of ESL experience ranging from 8 to 20 years (mean 11.1), 4 reported an affiliation with a political party, while 7 confirmed having hearing difficulties.

The participants were also asked to rate their interest in domestic and foreign political issues, and most importantly, to rate their agreement with 13 statements related to each of the 10 played tokens on a 5-point Likert skale, followed by two dichotomous closed set questions regarding their recognition of the speaker and difficulties in understanding the content of the spoken material to which they were supposed to give Yes/No answers. In addition to the first of the two questions, the students were also given a contingency task of naming the speaker they recognized, provided that their answer to the recognition question was affirmative. Out of 13 statements, 10 were formed by using the template *The speaker is X*, where X was

substituted with an item from a set of adjectives including : *passionate, charismatic, determined, boring, sincere, eloquent, interesting, persuasive, angry and enthusiastic*. The additional statements were *The speaker is an expert on the topic he is discussing*, *I agree with the speaker* and *The speaker's expression is clear and accurate*. It should be noted, however, that the attributes charismatic, angry, passionate, boring, enthusiastic and persuasive, as well as the statement *I agree with the speaker* were drawn from Rosenberg & Hirshberg's (2008) set of 23 statements used in their research of speaker's charisma, whose high correlation with persuasiveness was proven in the same study.

The results of the perception test enabled us to select 4 speech samples (2 in Serbian and 2 in English) graded by the participants as the most and least persuasive, in order to perform an acoustic analysis and relate the differences in persuasiveness to their prosodic properties. This second stage in our research was performed in three steps, including the analysis of global characteristics of all 10 tokens, a descriptive analysis of the selected four, followed by their comparative analysis. The acoustic analysis in this research was performed using Praat 5.2.03 (Boersma & Weenink, 2010), in which audio tokens converted from video material to a sample rate of 44100 Hz and a bitrate of 128 kbps were analyzed using the cross-correlation analysis and automatic drawing methods and pitch range set to 50-300 Hz.

4. Results

4.1.   Perception analysis

After excluding from our analysis the responses given by participants who reported their political affiliation and/or hearing difficulties, as well as those who reported having trouble understanding the content of the tokens, we found that female graders gave more varied grades to speakers, while male participants gave (almost) identical grades to speakers 4, 5, 6 and 9, and both groups chose Speaker 10 as the most persuasive one. Participants at different years of studies also rated the speakers very similarly, as the difference in mean grades given to speakers ranged between 0.24 and 0.51 and the greatest disagreement between mean grades was 0.58. A similar amount of disagreement was also found for the duration of ESL exposure, as well as interest in politics, which was below average (2.43 for domestic, 2.35 for foreign). This was especially the case for British speakers, where no significant correlation between grading and interest in foreign politics was noticed, although the persuasiveness rating of the highest rated Speaker 6 actually negatively correlated with the interest in foreign

politics. Regarding our Serbian speakers, the situation is expectedly different, although only for 2 speakers.
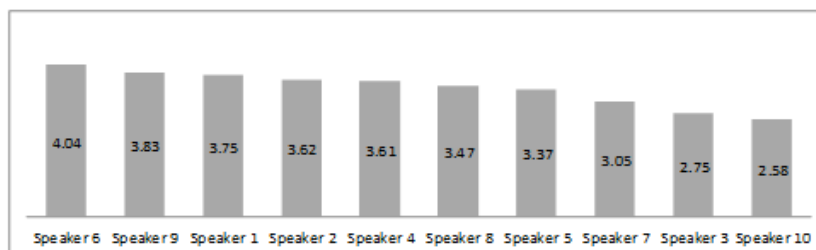

Figure 1 : *Mean persuasiveness grades for speakers*

As seen in Figure 1, British politicians were rated as more persuasive than Serbian politicians, with the top 3 being English speakers, and Speaker 6 being the most persuasive out of all 10 tokens. Their least persuasive representative, however, was placed at the bottom of our list, along with Speaker 10, both well below the ratings of other speakers. Apart from speaker 10, other Serbian politicians were placed in the middle of our list, the best of whom was Speaker 2, ranked fourth most persuasive. However, persuasiveness was not the only attribute that we asked our participants to evaluate.

Finally, if we were to compare the most and least persuasive speakers of both languages based on the ratings of other characteristics included in the questionnaire, it would be easy to establish a relationship between the least persuasive ones, as both rated poorly on the accuracy of expression, enthusiasm, passion, charisma, determination and how interesting they were to our participants. Although it is more difficult to pinpoint what is common to our most persuasive speakers, passion, determination and perceived expertise were the characteristics which both Speaker 2 and Speaker 6 were thought to possess more than others. We should also mention that, while recognizing the speaker was seen as an important precursor to high and low persuasiveness grades, which made us wonder whether our participants already had strong opinions in favour or against a few of our speakers, some of the characteristics which we tested, notably sincerity and agreement with the speaker, which in our opinion can be tied to such preconceptions, did not result in inter-speaker variation significant enough to strongly support such a claim.
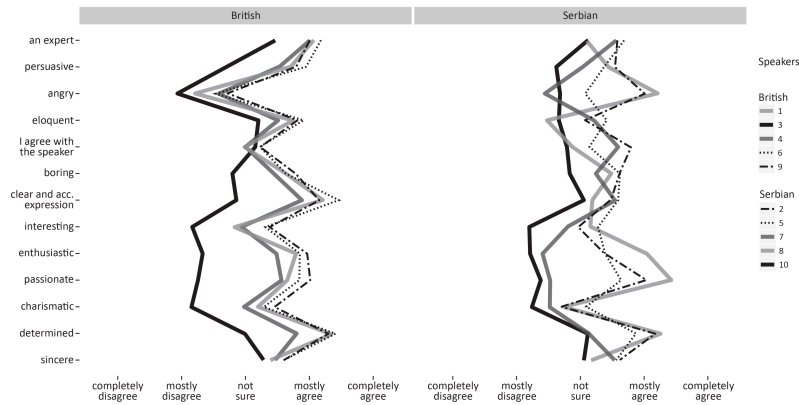
Figure 2 : *Mean speaker rating*

4.2. Acoustic analysis

4.2.1. Global characteristics

Having determined which extra–linguistic characteristics influence the perception of persuasiveness, a three–stage acoustic analysis was performed with the purpose of relating persuasiveness to the prosodic characteristics of the speeches and potential differences between Serbian and British political discourse.

In the first set of analyses, all 10 tokens were analyzed in terms of their global characteristics pertaining to F0 variables. Both English speakers were found to have higher minimum and maximum F0 values than the selected Serbian speakers, as well as F0 range. To provide a clearer account of the range in pitch that the speakers used, F0 was also calculated in semitones and, while the lowest rated speaker (Speaker 10) was the one with the narrowest pitch range in Hz, the narrowest pitch range in semitones belonged to Speaker 9, the second-highest rated speaker among the 10. Similarly, no observable consistencies were found in language-related differences regarding mean and standard deviation values, nor could they be connected to the differences in persuasiveness.

However, if we look at the samples 6 and 10, chosen as the most and least persuasive, we can see that while both samples are characterized by low mean F0 and standard deviation, sample 6 has wider range, suggesting that the speaker, although not very frequently because of low deviation, may have made selected information in his speech more prominent by heightening his pitch,

which was not the case with Speaker 10. We cannot, however, conclude that it is the F0 range that determines the speaker's persuasiveness, since Speaker 3 had the second widest range among all 10 speakers, but also high mean F0 and standard deviation. This implies that the influence of F0 must be sought within separate tone groups, and related to the choice of focus and the pitch changes within the prominent, information-bearing parts of speech.

4.2.2. Token description

Once we divided the tokens into tone groups and marked narrow and wide focus, the four most and least persuasive speeches in the two languages were analysed separately. What we could observe as common to the tokens was that clearly stressed information, in terms of contrastive stress, downstepping of the less informative part of tone units, limiting broad foci to a small number of constituents and a clear marking of stressed syllables in terms of F0 movement, was very important for the impression of speaker's persuasiveness. Declination over an utterance made the processing of information easier, probably because they fit in better with what the listener expected a specific type of sentence to sound like. In the case of British speakers alone, the point on which the 2 speakers differed significantly were nuclear tone types. Speaker 6 used much more falling tones than Speaker 3, while the latter, on the other hand, used complex nuclear tones on a number of occasions which did not demand such usage either in terms of sentence type and context or special attitude or emotion. When it comes to prosodic differences pertaining to Serbian speakers, we could say that the main difference here was in terms of F0 range on nuclear syllables, which was much lower for Speaker 10, probably contributing to the impression of disinterestedness.

4.2.3. Comparative analysis

The data which we chose to to obtain about these four samples included information about the F0 range and peaks of both nuclear and pre-nuclear stress-bearing syllables belonging to broad-focus domains and F0 range and peaks of narrow-focus nuclear tones, while nuclear tone type was distinguished as either falling or rising. Since we divided speech tokens into tone units, we also looked for the minimum and maximum F0 values of entire TUs, and the percentage of TU F0 range taken up by the first stressed syllable of focus domains. Finally, we also noted the F0 values of boundary tones as well as tonic syllable duration. These measurements enabled us to extract 18 variables pertaining to F0 characteristics for which we calculated mean and standard deviation values. Unfortunately, the only variables with statistically significant correlation were standard

deviations for F0 peaks in narrow-focused rising nuclear tones, their percentage in TU's F0 range and the maximum F0 of their TUs. This suggests that we cannot look for consistencies in these variables across both languages.

However, looking separately at speakers of each language we could notice some language-specific differences between the most and least persuasive speakers. For instance, regarding Serbian politicians, Speaker 2 used a much higher F0 range as well as higher peaks on both falling and rising nuclear syllables in broad foci than Speaker 10, as well as higher standard deviation for these variables. The F0 values of TU boundary tones were not as different, although Speaker 2 had slightly higher values here as well. However, while this was the case with our Serbian speakers, with our British speakers the situation was mainly the reverse, especially in the case of rising and falling nuclear peaks and boundary tones, which were higher for Speaker 3. When it came to signaling the beginning of broad focus domains, all 4 speakers behaved very similarly, although with the exception of the maximum F0 values of the first stress syllable, where the differences followed the pattern we observed for the nuclear tones.

The pattern reappears in the data regarding the F0 values for entire TUs containing broad focus domains, such as their range, minimum and maximum values and here, too, the most persuasive Serbian speaker had higher values, while the same was true for the least persuasive British politician. However, besides being able to say that Speaker 3 was consistently the one with the highest nuclear F0 peaks and F0 range, there are few observations we can make. Speaker 3, as with broad-focused TUs, was again the one whose TUs contained the highest F0 values, while we should point out that Speaker 10 frequently had standard deviation figures much lower than other speakers, suggesting that while on the average his use of F0 was similar to other speakers, he paid much less attention to F0 changes in different contexts, making his nuclear tones very similar to one another despite any other changes which may have occurred in the pitch of his speech.

5. Conclusion

In this paper, an effort was made to prove that the persuasiveness of political speech can be attributed to its prosodic properties, while at the same time examining the differences and similarities between political speech in Serbian and English in order to observe how different prosodic signals relate to the listener's judgement of speech as persuasive. The results did not show a significant correlation between persuasiveness grades and global characteristics of pitch

including range, mean and standard deviation values, although we did find that visible declination and downstepped contours helped emphasize the important lexical constituents in terms of high focus range and that narrow-focus, short TUs, especially if they were separated by brief pauses, and helped stress the important lexical constituents, while longer focus domains carried the risk of ultimately confusing the listener as to what the speaker wanted to put in the foreground. Pertaining to the differences between British and Serbian politicians, wider F0 range and peak values on nuclear syllables in broad foci, as well as higher standard deviation for these variables were characteristic of a more expressive Serbian speech, while this was not the case with British speakers. A similar result appeared for the maximum F0 values of the first stressed syllable in tone units, as well as F0 values for entire TUs containing broad focus domains, including their range, minimum and maximum values.

In summation, this research has confirmed that political discourse can be analyzed in terms of its prosodic properties with Serbian as no exception. Our perception study has pointed to differences in the perception of persuasive political speeches in Serbian and English, and our acoustic analysis proved that prosodic characteristics of such speeches can be successfuly related to their persuasiveness.

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