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## A Review of the Doctoral Dissertation

### Phonetic attrition and cross-linguistic influence in L1 speech of late Czech-French bilinguals,

submitted by

**Mgr. Marie Hévrová**

The doctoral dissertation by Mgr. Marie Hévrová examines the attrition of phonetic capabilities in the first language of Czech speakers residing in France. The interaction of first and second language (L1 and L2, respectively) systems is a popular research topic; however, L2 acquisition studies dominate over L1 attrition studies not only in the Czech academic environment. In addition, the dissertation constitutes the first systematic examination of the effects of L2 French on L1 Czech. The research focus of the submitted dissertation is therefore highly topical, interesting, and original.

In the first chapter of the theoretical introduction, Ms. Hévrová introduces models of L2 speech perception and production which have been proposed thus far, including the very recent SLM-r. The models are described in extensive detail, supported by useful examples. It is worth commending that the student presented not only the traditional segmental approaches, but also Mennen's L2 intonation learning theory. The key details of the segmental models are summarized in a concise tabular form (p. 42). The second chapter addresses issues related to second language acquisition and bilingualism generally and, then, more specifically, effects of the structure of an L2 on that of an L1, with a focus on the sound patterns of the two languages. Investigations of phonetic effects are again presented extensively divided by the phonetic phenomenon studied; the author provides illustrative tables summarizing the main aspects of the covered studies. The author goes beyond mere

descriptions and considers limitations of the studies and concepts discussed. The last chapter of the theoretical introduction aims to compare the “phonetic systems” of Czech and French. It starts with what may be regarded as a somewhat redundantly detailed description of the concept of standard language and the linguistic situation of Toulouse French and Bohemian Czech. The comparison of Czech and French sound patterns itself is generally well presented, although I do have two points to raise. First, the author acknowledges at the top of page 107 that some of the Czech sounds do not have a status of a phoneme. However, then they should not be given in slant (phonemic) but square (phonetic/allophonic) brackets; this is rather confusing, especially in the summary on p. 126 (where the sounds’ non-phonemic status is not reiterated). Second, I was wondering why the author used the question mark for the glottal stop instead of the proper IPA symbol [ʔ]. The theoretical chapters are generally well written, with a logical structure. Ms. Hévrová has familiarized herself with a wide range of studies, demonstrated solid knowledge of the field, and managed to describe this research area in a comprehensive way and with a critical eye. Each of the theoretical chapters is concluded by relating its main points to the author’s own research. The work with references is exemplary, with only one mistake in referencing (Dacovičová should be Dankovičová). The fourth chapter of the Marie Hévrová’s doctoral dissertation introduces the hypotheses and research questions for her own study, as well as the general research design.

The empirical part of the dissertation consists of three independent studies. The core of the first of these is a perceptual test whose objective was to find whether Czechs living in France (CF) would be perceived as sounding less Czech by native Czech listeners than a group of control Czech speakers (C). It is commendable that methodological aspects of the design of the perceptual experiment (such as balance between the number of C and CF items) was carefully considered, based on available studies. On the other hand, I would point out that 17 is rather a low number of participants in a perceptual experiment, but borderline acceptable. The results of the experiment bear out the hypothesis that the CF group would sound more French in their L1 Czech. I have two questions concerning the perceptual study:

- 1) Did the PhD student behave differently from the others?
- 2) Can “students in their first year of the Bachelor of phonetics” (p. 144) really be regarded as “experts” (p. 145)?

The second is an acoustic study in which the author analyzed the realization of vowels, several consonants, melodic patterns and hesitation markers (what Ms. Hévrová refers to as “stuck schwa”) in the speech of her subjects. Indeed, she finds a number of instances of cross-linguistic influence and comments on them. The results are accompanied by truly informed discussion; specifically, the author considers interesting implications of the observed assimilation and dissimilation effects and uses efficient illustrations of the combined effects (Fig. 6.19). It is to be emphasized that measurement methods are carefully described and

justified (note especially the reasoning for using both raw and normalized values to measure vowel formants). I would like to ask again two questions related to the acoustic study:

- 1) On p. 196 the author says that “For determining the speaker’s f0 range in the task, the highest f0 value was rounded to the closest higher multiple of five and the lowest f0 value to the closest lower multiple of five.” Why did she make this decision? Is there any support for this approach in literature?
- 2) In section 6.6, the author operates with “very high rising intonation”. It is not clear, however, how it was conceptualized. Was a very high rising contour identified perceptually, or acoustically, with a given threshold in semitones?

The last empirical chapter is based on a questionnaire whose aim was to verify correlations between some of the acoustic parameters and extralinguistic factors such as the CF speakers’ length of residence, use of Czech or proficiency in French. Chapter 8 is dedicated to general discussion, where the author considers the results from several perspectives, also comparing the three conducted studies to each other. An independent section is devoted to contributions of the dissertation; here Marie Hévrová proposes a possible three-stage development of L2 sounds from complete equivalence classification via a dissimilation in some features of an L2 phoneme and assimilation of other features, to a formation of a new L2 category. The three stages are effectively illustrated in Fig. 8.2; for publication purposes, I would consider improving the figure by representing individual features of phonemes, rather than entire phonemes. I also appreciate that the author points to the importance of looking beyond group results and examining individual variability.

Although the text has very much improved compared to previous versions I happened to glimpse at, there are still several language issues remaining which would need to be addressed should the author seek to publish her work as a scientific monograph. This includes articles (especially frequent overuse of the definite article), occasional use of incorrect words (such as the verb *to precise* which does not exist in English and seems to stem from, perhaps ironically, transfer from French), or simply typos and other non-systematic errors (many appear, for example, in the fifth chapter). In addition, question marks (typically two) appear in several places where the author intended to provide a reference. Finally, the author also uses both points and commas as decimal markers. Crucially, however, phonetic terminology is used correctly, perhaps with the exception of the assimilation of voicedness (rather than voicing; p. 111).

Overall, I regard the submitted dissertation as very good research of cross-linguistic interference between L1 Czech and L2 French. The author has demonstrated comprehensive knowledge of the scientific area, offered new results and proposed intriguing theoretical implications for L2 acquisition.

Based on the review presented above, I conclude that Mgr. Marie Hévrová has convincingly demonstrated her capacity to conduct independent scientific research and that the submitted dissertation meets the requirements of a doctoral dissertation. I recommend that it be accepted for defence.

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