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RE: Dissertation report Anna Skalba

Summary

Anna Skalba's dissertation concerns the representation and processing of grammatical tense in bilinguals, in particular the present perfect in bilinguals and language learners with English as a second language (L2). To investigate this issue, Anna uses a combination of three research methods, in particular structural priming in language production, eye-tracking during sentence reading, and ERPs during reading. The dissertation reports empirical research with each of these methods in Chapters 2, 3, and 4 respectively. There is also a substantial Introduction, a chapter with a very thorough and complete review of the literature and research methods (Chapters 1), and a General Discussion.

The Introduction provides a thorough presentation of theories concerning the representation of L2 syntax, such as shared syntax accounts, separate syntax accounts, and several L2-specific accounts. There is also an excellent explanation of the present perfect and how it relates to a superficially similar construction in French, which, importantly, has different usage, as well as the relevant properties in Polish (no equivalent) and Welsh (fully functional equivalent). This is followed by a clear outline of the dissertation.

Chapter 1 is a very substantial review of the literature. It provides a very extensive and nuanced discussion of empirical findings and theories regarding the representation and acquisition of second language syntax. There is also a clear explanation of the eye-tracking in reading paradigm, and relevant empirical findings in L2 reading. This is followed by a similarly clear exposé on EEG studies in language comprehension and relevant results in L2 reading.

Chapter 2 describes behavioral studies with several versions of the structural priming paradigm, with the aim of testing whether the alternation between past simple and present perfect in English can be primed, both within-English and between other languages and English in bilinguals. This turned out to be quite a quest, with four pilot studies that showed mostly disappointing results (although see below), as there was either a predominance of only one of the alternants and/or there was little indication of priming. A full-fledged

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experiment using translation (from French to English) found, perhaps surprisingly, that French sentences using the *passé composé* were mostly translated with the past simple in English, in contrast to predictions. The next experiment tested cross-language priming, but observed no priming effect. There is a careful and nuanced discussion about these findings.

Chapter 3 tests the processing of present perfect in French-English, Polish-English, and English native speakers in an eye-tracking experiment. The Polish-English bilinguals were experts with extremely high proficiency of English. Target sentences used the present perfect either correctly or incorrectly, as this tense was incompatible with a temporal adverb. Most importantly, the Polish-English and English native speakers were sensitive to this manipulation in their reading times, while the French-English speakers were not, suggesting that high proficiency and metalinguistic knowledge allows learners to obtain native-like sensitivity of tense usage, at least regarding their reading pattern.

Chapter 4 is an ERP-experiment with Polish-English and Welsh-English balanced bilinguals, using the same stimuli as in Chapter 3. Neither group responded to the violations in the P600 time window. However, there was an interaction in the N400 time window, such that the Welsh-English but not the Polish-English bilinguals showed a difference between the conditions.

The General Discussion, finally, summarizes all the findings in this dissertation, relates them to the different theories, and points out limitations and avenues for further investigation.

Evaluation

This dissertation addresses a very interesting and novel set of questions. The literature on sentence comprehension and production in L2 has predominantly looked at alternations between syntactic structures corresponding to a similar state of affairs in the world (e.g., datives, actives/passives, genitives, etc.) or that differ in the attachment of a constituent in the syntactic tree. Studies focusing on online sentence comprehension have likewise been limited to a fairly restricted set of phenomena (e.g., ambiguous sentences, filler-gap constructions, number and gender agreement). Very few studies in the field have been concerned with the representation and processing of tense, such as the alternation between past simple and the present perfect in English, especially in light of the differences between languages such as Polish, French, and Welsh that appear to have no, partial, and full overlap with that construction in English.

The thesis deserves praise for many reasons. The review and treatment of the literature in the introduction and Chapter 1 is of very high quality. The review is sharp and critical when necessary, points out gaps in the literature, and identifies cases where results may be incomparable due to a lack of clear definition (e.g., excellent discussion of many different interpretations of what it means for a construction to be 'present' in another language', p. 79).

Another strength is the combination of different methodologies, namely structural priming in production, eye-tracking, and ERPs. Especially the last two approaches are methodologically challenging and require a considerable time investment in order to attain expert level. But the candidate not only displays skills as an experimenter, but also uses corpus analysis competently, for instance to control the stimuli. Finally, she uses advanced statistics, such as Bayesian analyses in the cross-linguistic priming study.

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A further reason for praise is Anna's persistence in attempting to get the structural priming of tense to work. All in all, there are four pilot studies and two full-fledged studies. Based on these efforts, we can now be quite confident that there is no substantial structural priming for this alternation, which leads to the interesting theoretical question of why: what is it about a choice between past simple and present perfect that makes it impervious to priming, while a range of structural alternations show clear effects?

A final reason for praise is the quality of the writing. The text is clear and academic. There were extremely few typos or other stylistic issues, and the text was never wordy. The form and structure are appropriate for the content. Empirical findings and theories are discussed correctly and in a nuanced way. The discussion is substantial and it raises several very fundamental theoretical points.

Given the high quality, it is in fact difficult to identify areas for improvement. Some, fairly minor, comments are listed below.

- The literature review is well-organized and very complete. However, I sometimes wondered whether all of the studies being reviewed here are equally relevant for the rest of the dissertation. For instance, interesting as the literature on verb islands may be, this seems somewhat tangential to the issue of reading sentences with tense violations. Perhaps the candidate could do more to emphasize the studies that are most important.
- Pilot study 1. It seems that some items in the present perfect have lexical repetition, but none of the items in the simple past. Why?
- Pilot study 3. Here I had the feeling that you gave up too early on a promising paradigm. The actually descriptive responses seem to be compatible with a priming effects, namely 27% vs. 22% out of all usable responses, is a 5% priming effect. Although this is far from significant, you of course only had 7 participants.
- Although you explain later on why there is no passé simple control condition in the translation study, this was initially surprising, and it limits the conclusions. I would explain why this was the only option earlier on. Additionally, you promised on p. 102 that you'd test for a cognate boost, but this doesn't seem to be reported in the results.
- One issue with the eye-tracking study is that the between-groups comparison confounds properties of the language (French vs. Polish) and linguistic expertise (layperson vs. experts).
- I was surprised by the following remark at the end of this chapter: "Finally, the study used eye-tracking, which provides behavioural measurements with limited temporal resolution in comparison with other methods, for instance EEG." This is surprising to me, as both techniques allow millisecond precision.
- EEG study: Polish-English bilinguals accepted ungrammatical PP sentences in the majority of cases". Suggestion is made they have difficulty with this. But the Welsh-English bilinguals were at chance for these items (50% errors). So it is difficult to maintain they did NOT have a problem with these items!

Additionally, one remaining question concerns the null effect of tense priming. I wondered whether the candidate could relate this finding to the results of a study reported by Pickering and Branigan (1998) who found that tense/aspect played no role as a modulating variable in DO/PO priming (gives/gave/is giving...).

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It is true of course that that study did not look at priming of aspect and tense itself, but whether it modulated the priming of syntactic structures. Nevertheless, it seems that if a construction such as John GIVES can prime for instance Mary IS SHOWING as strongly as it primes Mary SHOWS, than it means that the mechanisms underlying priming “don’t care” about tense or aspect and collapse these categories together for their purposes. I wonder what the candidate thinks of this view.

In conclusion, my evaluation of this thesis is very positive. In my opinion, the candidate should be allowed to proceed to the next stage, namely the public defense. I look forward to discuss this work in more detail with the candidate. I thank the promotors and the Faculty of English at Adam Mickiewicz University for giving me the opportunity to evaluate this interesting dissertation.

Yours sincerely,
Prof. dr. Robert J. Hartsuiker

