

External Examiner’s Report on the Dissertation of Mgr. Maroš Filip

“The functioning of structural priming in Czech”

Submitted in 2024 at the Department of Linguistics - General Linguistics

I. Brief summary of the dissertation

This thesis is on a cognitive phenomenon called “structural priming”, a term which in psycholinguistics refers to the observation that speakers show a tendency to re-use syntactic structures they had recently encountered, either in comprehension or production. The thesis consists of three major parts, a theoretical background section, the report of 6 language production experiments, and a general discussion. The main research question is: In how far can structural priming effects be observed in Czech? Furthermore, the author puts emphasis on the question which representational levels are involved in structure repetition. As Czech has a rich system of morpho-syntactic markings, parts of the investigation concern whether case marking plays a significant role in structure priming. Results show that structural priming can indeed be observed in Czech, although the size of the effects is rather small compared to other languages and limited to certain structures. It was further found that different case markings are likely to contribute to structure repetition. As previous research on structural priming has been conducted mostly in English, Dutch and German – all three Germanic languages – the thesis must be regarded as providing a valuable contribution to the field.

II. Brief overall evaluation of the dissertation

The dissertation offers important new insights into structural priming, specifically because it investigates the phenomenon in Czech, a notoriously understudied language in psycholinguistic research. Choosing Czech as the language of investigation allows to shed light on questions that cannot be answered in, for example, English. Overall, the thesis is well-written. The literature review gives a solid overview of the state of the art. The experiments are well-motivated. The methodology used is sound. This is true for the design of the experiments, the data collection procedures, as well as for the statistical analyses. The findings are interesting, and, more importantly, the interpretation of the results is convincing. The thesis allows to make several links to existing research and offers promising avenues for future research.

III. Detailed evaluation of the dissertation and its individual aspects

The theoretical part of the thesis is comprehensive, well-structured, and easy to follow. It offers a well thought out summary of all aspects relevant to the study of structural priming and thus can motivate the specific research objectives formulated by the author clearly.

Examples are provided to illustrate the different methodological approaches to and the theoretical underpinnings of the phenomenon. Furthermore, the author is successful in motivating why investigating structural priming in Czech specifically is relevant and can significantly broaden our understanding of structure repetition. At the end of the theoretical background, the author clearly states four research questions. Each of these questions is then repeated in the report on the experiments, which allows the reader to follow the line of argumentation throughout the second part.

In the second part of the thesis, the author describes 6 experiments. In this, he consistently uses a specific structure for his report – a structure well-established in the field of psycholinguistics, which made it easy to follow the details of each individual experiment. All experiments were run in a lab-setting, except for experiment 5 which was run via the internet. The author employed a well-established experiment design, where subjects read a sentence (prime), and then see picture that is to be described (target). Experiments, however, differed regarding several different manipulations. These manipulations appear appropriate given the research questions.

Exp 1 investigated priming in SVO/OVS and ACC-DAT/DAT-ACC structures as well as potential lexical boost effects (through verb repetition). Priming was found for ACC-DAT. No other structures showed a reliable priming effect, nor was a lexical boost effect observed. The author provides a plausible explanation for the findings.

Exp 2 investigated priming in ACC-DAT/DAT-ACC as well as potential effect of case marking morphology (by pairing prime sentences with target pictures that did or did not allow repetition of specific case marking morphemes). In addition, subjects performed a working memory assessment. Priming was found for ACC-DAT only. No boost effect through case marking was observed, and no influence of working memory was found. The interpretation of these results was convincing.

Exp 3 was a repetition of Exp 2 with the only difference that sentence beginnings were presented along with the target pictures in order to increase the number of scorable target responses. Priming was found for ACC-DAT only, and a main effect was found for case marking repetition, but no interaction. Again, plausible explanations for the findings were offered by the author.

Exp 4 was a repetition of Exp 3 with the only difference that the number of trials with case marking overlap between prime and target was increased. Priming was found for ACC-DAT, and the interaction of case marking repetition and structure (ACC-DAT) approached statistical significance. The interpretation of the results was solid.

Exp 5 was a repetition of Exp 4. But the focus was now on the question whether different case markings show a different strength of priming. Prime and target sentences were more closely aligned regarding their case markings to answer this question. A weak priming effect was found for ACC-DAT. No evidence for a difference between different case markers was obtained. The author provided several good ideas regarding the question why the priming effect that was observed before was now almost absent.

Exp 6 repeated Exp 5 in the lab since due to COVID restrictions Exp 5 had to be conducted via the internet. Everything was identical in the two experiments. However, potential differences between a lab setting and a web-based version of the experiment allowed the author to study a specific explanation for priming to occur, which emphasizes alignment between speaker and listener. Priming was found for ACC-DAT and some

evidence was found that points to a difference in the strength of the influence that different case marker exert. The author convincingly explained the results, especially in face of the fact that they differed compared to Exp 5.

References, footnotes, and quotes all conform to established standards in the field. The author clearly showcases his ability to summarize previous work and findings in his own words.

Visual presentations of findings are clear and easy to understand, which undoubtedly helps the reader to understand the results of the experiments, even though, at times these are quite complex. There are only few typos.

I would like to point out two aspects of the thesis that I found especially intriguing. One: I was impressed by how the author managed to incorporate some of the ideas on the contribution of the interactive alignment theory to the phenomenon of structure repetition. I assume that the author initially did not plan to collect data via the internet but had no other choice due to the pandemic in 2020-2022. The repetition of the experiment in the lab and the comparison of the results, however, showed differences, which then actually spoke to the issue as to whether structural priming only concerns “the speaker as an information processor”, or also “the speaker as an interlocuter”.

Two: I very much liked the idea to investigate whether the probability to show structure repetition effects is somehow related to working memory, although in this thesis the attempt to show a link was not successful. However, this is a great idea for future research and I appreciate that the author reported the data.

Overall, I am confident in my assessment that the thesis considerably contributes to the field of psycholinguistic research.

IV. Questions for the author

Overall, there were no loose ends in this thesis in my opinion. The major theoretical issues mentioned in the theoretical part were all picked up in the General discussion. However, I have some questions for the author that relate to aspects in the thesis that in part go beyond structure repetition and concern syntactic encoding in more general terms.

Why were there so many invalid responses in Exp 1 and some of the other experiments? In how far were the drawings responsible for that? (Unfortunately, I did not have access to the Appendices.)


How do findings from structural priming studies in general and the findings in this study specifically align with the notion of (linear) incremental encoding? Is it possible that Czech due to its specific typological features (rich morpho-syntactic marking, free word order) is a language that favours linear incremental encoding, which in turn may weaken structural priming effects?

In how far do the results reflect what Cai et al. (2012) call “conceptual-to-function mapping”, that is, to what extent is the contribution of the morphological markings form-based and to what extent is it based on the priming of a specific mapping of thematic roles to syntactic functions?

Can the findings be used to infer something about the question whether grammatical encoding is a two-stage process (function assignment and constituent linearization are separate) or a one-stage process (both processes occur at once)? And does the author think that languages may differ in this regard?

V. Conclusion

I provisionally classify the submitted dissertation as *passed*.

A handwritten signature in black ink, appearing to read "J.O. Genwin". The signature is fluid and cursive, with a large, stylized initial "J" and "G".

Heidelberg, October 15th 2024