

Review of a PhD thesis: The functioning of structural priming in Czech

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Summary. The thesis investigates priming effects in Czech. To this effect, it presents several case studies. Experiment 1 starts with an attempt to replicate in Czech the results that were achieved for English passives, taking the Czech OVS vs. SVO orders as a proxy for the passive--active distinction in English. This attempt turns out to be unsuccessful; however, a priming effect appears when one considers structures with a dative and an accusative NP.

The thesis then zooms in on the order of datives and accusatives, i.e., the place where a priming effect was found, and attempts to refine the findings by trying to correlate priming in these structures with several independently observed effects, such as the inverse preference effect, the lexical boost effect, the morphological boost effect, working memory limitations and social factors.

The thesis is well structured, it starts by presenting all the relevant background before turning to the experiments themselves. The summary of the results and the main findings are highlighted towards the end.

Evaluation. While the goal is primarily to replicate priming effects in Czech, the dissertation goes beyond a simple replication by exploring a novel empirical territory within a language where priming studies of this kind have never been done before. Moreover, the thesis ends up (potentially) proving the existence a novel effect in priming studies, namely the morphological effect.

It is instructive for the reader to see how each subsequent experiment tries to both build up on, and improve up on, the results achieved in a prior experiment. Always, when an apparent dead end is reached in one of the experiments, the thesis manages to overcome the obstacle by devising a new experiment, adding some clever feature to the experimental setting. For instance, one of the experiments tried to provide two words for the participants to start the ditransitive sentence, thereby obtaining more relevant data, thereby achieving statistical significance of the effect. This feature (since it was successful in overcoming the obstacle) is then preserved in all subsequent experiments. To my mind, this was one of the most valuable contributions of the thesis: the author presents here a concentrated effort to crack an empirical problem, sharpens his focus on set of well-defined questions, and pursues them with tenacity until a satisfactory result is achieved. This is a work well-done.

In effect, the thesis proves beyond any reasonable doubt a novel claim, namely that structural priming exists in Czech. By doing so, it lays the ground for future investigations into this territory and does so in a way that future researchers will feel welcome and encouraged to pursue this line of research. There is not much more one could wish that a thesis would do. I am, therefore, happy to report that the thesis meets all the requirements for the award of the Ph.D. degree.

Questions, issues. As in any inquiry, a set of questions nevertheless arises. In the following paragraphs, I shall highlight several areas where, arguably, a different theoretical choice could have been made, and perhaps an alternative path of reasoning could have been followed. I will be happy to talk about these in the defense, and perhaps some of these issues could be followed up on by future research. However, these issues (even if real) do not, in any way, detract from the quality of the work assessed.

In presenting my questions, I always give the relevant context and then present the issue following an arrow sign (-->).

On p. 19, I found the following claim: *Judging acceptability is highly subjective, but it should not be a problem when ratings from a large group of participants are collected.*

--> I am a bit confused here. Is it perhaps possible that sometimes, differences in judgement between speakers reflect real grammatical differences between their dialects/idiolects? What do we gain when we average the scores of such sentences across two speaker groups? My feeling is that such an "interpersonal" judgement is not really an object of scientific inquiry. What would be your take on this issue of variation, assuming that there may be some genuine cases thereof? Is there a way to factor it into the results without averaging over it?

On p. 50, there is the following claim: *These sentences resemble passives because they emphasize the object (OVS) or actives because they emphasize the subject (SVO).*

--> I understand the idea and I don't think it's wrong, but I think the way this is described may be an oversimplification. Specifically, I don't think that SVO orders in Czech necessarily 'emphasize the subject', since they are also acceptable in "out-of-the-blue" contexts, where there is no subject emphasis going on. Imagine, for instance, you hear noises from the kitchen. You ask: what's happening? The answer is: Don't worry, *Petr umývá nádobí*. "Petr-nom washes dishes-acc." I don't think there is any subject emphasis involved.

p. 62. The description of the setup for Experiment 2 reveals a potential weakness of the method. In particular, a potential affinity is hypothesised between Sentences 1 and 2 on the grounds that they share case endings, while Sentences 3 and 4 are claimed to be less similar (and potentially less prone to priming) since they have different endings.

--> I am worried here about the choice of the verbs. To my mind, if Sentence 1 indeed primes sentence 2 more than 3 primes 4, there is a confounding effect of verb type. In 1 and 2, both sentences contain verbs denoting a transfer of possession, while 3 and 4 differ (3 is a transfer of possession, 4 is not, since the dative is an external possessor/benefactor). Therefore, there is an independent difference between 1-vs-2 and 3-vs-4. It's therefore not clear to me how to interpret the results: even if the hypothesis is confirmed, this could be for orthogonal reasons. I understand that it may be hard to control for all possible intervening factors, but this one feels relevant.

Thematic role differences (whether they are included in "syntax" or not) have been reported to play a role in priming, so this should have been checked.

Now it's possible that this has no effect on the result, but this is hard to know since the reader does not know what specific sentences were used in the testing. As a result, I am not really sure what to think of the results. Here I would have been really happy for more discussion.

p. 64: *In the word span task (von der Malsburg, 2015), participants were asked to evaluate the logical correctness of a sentence (e.g., Kdo dostane spoustu informací a zpracovává je, často potřebuje bicykl k jídlu. ENG: Whoever gets a lot of information and processes it, often needs a bicycle to eat – correct answer: improper)*

--> I am not sure what is meant here by *logical correctness*. Isn't this more about whether the sentence is *pragmatically* weird or not?

p. 85, setup for Experiment 5.

--> I am wondering, if the priming effect here is really an effect of the specific ending -*ovi*, or an effect of virility (masculine animate). The reason why I wonder is because -*ovi* in the dative always goes with masculine animates. Is it possible to tell these two options apart?

p. 103, Sentence 3.

--> The difference between a dative reading and a possessor reading is purely orthographic. Can that be a confound?

Section 13.2.

--> Can this be an effect of attention? As you point out, the dialogic nature of the in-person experiment is questionable. But maybe people can focus more when not at the computer.

Typos.

p. 37-8: Ziegler and his colleagues (2019) questioned the experiment by Bock & Loebell (1990) in which priming between passives (e.g., *The 747 was landing by the airport's control tower*) and intransitive locative sentences (e.g., *The 747 was radioed by the airport's control tower*) was explained on the basis of repeated phrase structure.

--> I believe the examples to be the other way round.

p. 47: *in some classes the endings **are same** for the nominative and accusative*

--> are the same

p. 53: A mention is made of "Appendix A."

--> There is no appendix in the thesis, which is a pity. I think that at some places, there are questions the readers may ask themselves about the specific sentences that were used in the testing. Including the appendix would have been nice (even more so that the intention seems to have been there).

p. 56: Princezna hladí králíka

--> králíka

p. 56 ježibabe --> ježibabě

p. 58 et seq.: shortcuts --> abbreviations

p. 63: *Since in one version the prime sentence was presented in ACC/DAT syntax, in the second version the same sentence was in DAT/ACC syntax, and in the third version it was replaced by a neutral sentence.*

--> I get lost in the sentence, I think that "since" at the beginning is superfluous.

p. 63: assigned to pictures to pictures --> assigned to pictures

p. 109: the aroused circumstances --> the circumstances

(or some rephrasing, I don't think the original phrase means what it's intended to mean)

Conclusions. I consider the thesis an original piece of work that presents novel findings regarding priming in Czech. The thesis is scientifically sound, builds responsibly on a large body of literature which it comprehensively summarises for the reader. As such, it is a work that moves the field forward and I am sure that it will come to represent a valuable source for any future studies of (syntactic) priming in Czech. I consider it worthy of defense for the award of the Ph.D. degree.