External Review of the Doctoral Dissertation

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Title: *The role of animacy violation in novel metaphor processing and comprehension*
Discipline: Linguistics / Psycholinguistics
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1. Subject and Objectives of the Dissertation

The doctoral dissertation addresses the role of animacy violations in the processing and comprehension of novel metaphors. The main objective of the study is to investigate whether violations of animacy expectations modulate behavioural and neurocognitive indices of metaphor comprehension, and to what extent such effects can be captured using electrophysiological measures.

The topic is clearly embedded in current research in psycholinguistics and neurolinguistics and addresses a well-defined gap in the literature, particularly with respect to languages other than Mandarin Chinese.

2. Theoretical Background

The theoretical part of the dissertation demonstrates a very good command of the relevant literature. The author presents a comprehensive and well-structured overview of major approaches to metaphor processing, including indirect- and direct-access models, Conceptual Metaphor Theory, the Career of Metaphor model, the Graded Salience Hypothesis, Relevance Theory, and Conceptual Blending Theory. The discussion of metaphor conventionality as a gradient phenomenon is particularly well developed and directly informs the empirical research questions.

A separate chapter is devoted to animacy as a linguistic and cognitive category. The author convincingly argues for its gradient and context-dependent nature and reviews a wide range of behavioural and electrophysiological studies demonstrating its relevance for semantic processing. On this basis, the research aims and hypotheses are clearly formulated.

3. Empirical Part and Methodology

The empirical part of the dissertation consists of two main components. First, a series of normative studies is conducted to validate the experimental materials. Novel metaphors with and without animacy violations, as well as literal and anomalous sentences, are carefully normed with respect to meaningfulness, metaphoricity, familiarity, and cloze probability. This procedure ensures a high level of experimental control and constitutes a clear methodological strength of the work.

Second, the author reports an ERP experiment examining the processing of novel metaphors with and without animacy violations in Polish. Behavioural measures (reaction times and accuracy rates) are combined with electrophysiological data, with analyses focusing on the N400 time window (270–500 ms) and a later sustained negativity (600–800 ms). The experimental design is appropriate for the research questions posed, and the analyses are reported in a transparent and comprehensible manner.

From a methodological perspective, it should be noted that the analysis of error rates using an arcsine transformation and the analysis of reaction times using ANOVA no longer reflect the current state of the art; in particular, a linear mixed-effects modelling approach would have been more appropriate, especially for the analysis of accuracy data. However, this methodological choice does not substantially affect the overall interpretation of the results.

4. Results and Discussion

The results indicate that novel metaphors involve increased processing demands compared to literal sentences and that animacy violations further modulate semantic integration processes. These effects are reflected in both behavioural and electrophysiological measures. The interpretation of the findings is theoretically well grounded and demonstrates the author's ability to relate empirical results to existing models of metaphor comprehension.

The discussion is balanced and critical. The author explicitly acknowledges the limitations of the study, including the restriction to a single language and the use of minimally contextualized stimuli, and outlines well-motivated directions for future research.

5. Formal and Editorial Aspects

The dissertation is written in clear and fluent academic English. The structure of the work is logical and coherent, and the argumentation is consistently well developed. The work demonstrates the candidate's independence in research planning and execution, as well as a high level of methodological and analytical competence.

6. Points for Discussion at the Public Defence

Of course, some points can be raised in the dissertation which merit further clarification and critical discussion during the public defence. They concern both theoretical assumptions and methodological choices and are formulated below with reference to the main parts of the dissertation.

1. Conceptualisation of animacy (Theoretical chapters)
   The dissertation treats animacy as a gradient semantic feature that plays a specific role in metaphor processing. However, it remains open to what extent the reported effects can be clearly distinguished from more general forms of semantic anomaly or violations of selectional restrictions. How does the author theoretically justify animacy as an independent explanatory factor, and how could this distinction be empirically operationalised in future research?

2. Interpretation of late ERP effects (Empirical chapters)
   The empirical results include late sustained negativities, which are known to be multifunctional and difficult to interpret unambiguously. How does the author exclude alternative explanations of these effects, such as task-induced strategic reprocessing, increased working memory load, or general cognitive control mechanisms, rather than metaphor-specific semantic integration?

3. Model comparison and theoretical implications (Theory–data interface)
   The dissertation refers to several competing models of metaphor comprehension. On the basis of the reported findings, how would the author compare the explanatory adequacy of these models with respect to animacy violations? Which model accounts best for the observed pattern of results, and where do the data challenge existing theoretical assumptions?

4. Level and timing of processing (ERP methodology)
   The dissertation discusses animacy-related effects at both lexical-semantic and post-lexical integrative levels. Which level of representation does the author consider primary, and how do the temporal characteristics of the ERP effects constrain this interpretation?

5. Predictions beyond sentence-level processing (Stimulus design)
   The experimental materials are intentionally minimally contextualised. How does the author predict animacy-violating metaphors would be processed in richer discourse contexts, and which changes in behavioural and electrophysiological measures would be expected?

6. Cross-linguistic generalisation (Scope of conclusions)
   Given that the empirical study was conducted in Polish, which linguistic or typological properties of a language does the author predict to modulate the effects of animacy violations in metaphor processing, and how might these effects differ across languages?

The issues identified above should be viewed as topics for scholarly discussion, rather than as criticisms of the work's overall quality.

7. Final Evaluation and Conclusion

In conclusion, this doctoral dissertation presents a carefully designed and competently executed experimental study, supported by a robust theoretical framework and reasoned interpretations of the results. It makes a meaningful contribution to current research on metaphor comprehension, reflecting a high level of academic independence and methodological awareness. It fulfils all the formal and substantive requirements for a doctoral dissertation in linguistics and related disciplines. I therefore give it a positive evaluation and recommend that it be admitted to the public doctoral defence.