# Diverging Strategies for Processing Permissive Subjects in Dutch, German and English: Evidence from Event-Related Brain Potentials

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**Abstract :** Permissive subjects are non-agentive subjects combined with action verbs in the active form (e.g., 'A few years ago a penny would buy you two or three pins', 'The tent sleeps four people'), hardly found in German compared to English. This contrast can be related to processing constraints, proposing that distinct processing strategies account for varying efficiency of processing permissive subjects. The differences in processing strategies are linked to basic typological language properties, specifically basic word order. If a language has SVO order (like English), permissive subjects can be processed easier due to routinized look ahead parsing strategies. In contrast, if a language is SOV (like German), parsers are used to look back at parsing strategies, leading to difficulties in processing permissive subjects. The present study addresses the question of how to look ahead versus look back parsing strategies for permissive subjects depending on typological features like SVO/SOV. Additionally to English and German, we investigate Dutch, as it is clearly SOV but seems to allow more diverse roles in the grammatical subject than German. In order to demonstrate cross-linguistic differences in the processing of permissive subjects, we conduct an experiment where we record event-related brain potentials (ERPs) while native speakers of English, Dutch, and German read sentences with non-agentive permissive subjects and agentive control sentences. Test items were carefully designed considering, i.a. word frequency in the three languages. We hypothesize that in German, a non-agentive subject leads to an N400 effect on the following action verb, since in German as an SOV language, speakers apply look back strategies in processing, relying on sequence-independent non-word-order cues like case marking and animacy. Due to errors in form-to-meaning mappings, this could evoke surprisal effects, which are known to manifest in N400 amplitudes. In English, as an SVO language, speakers are more used to apply look ahead processing strategies and mostly exclusively rely on word order cues. Within the predictive coding framework grounded in research on semantic reversal anomalies (SRA, e.g., 'The meal was devouring the kids'), we expect that the processing of permissive subjects in English elicits P600 effects. As regards Dutch, we should find N400 effects similar to German since speakers of Dutch should equally use look back strategies due to the SOV word order. However, research on SRA suggests differences in the processing of permissive subjects in Dutch and German. The results give insights into how fundamental differences in processing strategies are present in speakers of different languages and the question of whether these strategies correlate with contrasts in basic language properties. This allows for a typological classification of the West Germanic languages based on processing contrasts, which not only helps explain if and how distinct typological features between the related languages lead to varying strategies for processing grammatical structures but also sheds light on how language systems may evolve differently over time influenced by processing mechanisms. Also, the results enable us to contribute to the understanding of cross-linguistic trade-offs between linguistic variables and diachronic-causal relations from a efficiency-related processing perspective.

**Keywords :** ERPs, look ahead vs. look back, N400, P600, permissive subjects, semantics, sentence parsing, syntax, West Germanic languages, word order

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