

INFLUENCE OF GRAMMATICAL VOICE ON SCOPE OF SENTENCE PLANNING

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The sentence planning process in language production has been conjectured to be primarily driven either by which one of the individual elements (the *who* and *what*) is taken as the starting point, or by the relational structure between these elements (the *who-did-what-to-whom*). The former is known as the linear incremental, and the latter the hierarchical incremental account of sentence planning. Which one of these strategies is used can depend not only on the properties of the event being described, but also on the grammar of the language being spoken. Grammatical features such as voice, for instance, require a speaker to assign the agent and patient before proceeding with sentence formulation. However, it can be tricky to disentangle the effects of voice vs. other fundamental linguistic properties such as word order. For instance, if the verb is positioned earlier in the sentence rather than later, this can force the processing of relational over non-relational information.

This study uses the visual world paradigm to compare sentence production between the English and Malayalam languages. Malayalam is most notable here for its lack of defined voice constructions, with speakers generally taking advantage of the free word order to rearrange subject and object for purposes of emphasis. It also favours verb-final sentence structures, as opposed to the fixed verb-terminal word order of English. For each trial of the experiment, participants described the transitive event depicted in the image shown to them. Sentences with varying word orders were invoked not only across but within the two languages compared, by pairing each image shown with a question that directed the speaker's response toward either the agent or patient.

On analysing the utterances of participants, the overall trend observed was that Malayalam speakers are more likely to accommodate the cued starting point by modifying the word order as required. Conversely, English speakers tend to favour the more prominent active-voiced structure, and even tend to disregard the cued starting point for the same. These observations were corroborated by the time-course of eye movements during sentence formulation in English and Malayalam respectively. The encoding of relational information was seen to be prioritised earlier and to a greater extent for English than for Malayalam. Passive sentences in Malayalam— i.e., sentences with the Patient as starting point— also showed more relational encoding than was typical for other Malayalam utterances. These results agree with previous accounts that word order and voice exert distinct influences on the scope of sentence planning. The use of distinct voice constructions may be the cause for the prioritisation of relational information during sentence planning in English.