

Cross-linguistic differences in processing double-embedded relative clauses: Working-memory constraints or language statistics?

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Abstract: An English double-embedded relative clause from which the middle verb is omitted can often be processed more easily than its grammatical counterpart; a phenomenon known as the grammaticality illusion. This effect is known to be reversed in German, suggesting that the illusion is language specific rather than being a consequence of universal working-memory constraints. We present results from three self-paced reading experiments which show that Dutch native speakers also do not show the grammaticality illusion in Dutch, whereas both German and Dutch native speakers do show the illusion when reading English sentences. These findings form evidence against working-memory constraints as an explanation for the observed effect in English. We propose an alternative account based on the statistical patterns of the languages involved. This alternative correctly predicts that the Dutch participants, being more proficient in English than the German group, display a stronger grammaticality illusion.