Semantic Illusions During Sentence Processing

Linguistic illusions have played an important role in informing debate about the memory architecture that subserves sentence processing. In this regard, the extent to which linguistic illusions in morpho-syntactic agreement are restricted to only ungrammatical sentences (e.g. 'The key to the cabinets were rusty') or also appear in grammatical sentences (e.g. 'The key to the cabinets was rusty') has been widely debated (e.g. Hammerly et al., 2019; Wagers et al., 2009). Representational-based accounts (e.g. Eberhard et al., 2005), which argue that linguistic illusions arise from how features are represented on the subject noun phrase, predict that illusions should occur in both grammatical and ungrammatical sentences. Alternatively, retrieval-based accounts (see Jäger et al., 2007, for review), which explain illusions as arising from the degree of (mis)match between the verb and preceding nouns, predict illusions in ungrammatical sentences only. While it is well-attested that linguistic illusions influence sentence grammaticality, whether linguistic illusions also influence sentence plausibility has not been systematically examined.

In this talk, I will discuss a series of studies investigating semantic illusions in different linguistic dependencies. Analogous to illusions of grammaticality observed in agreement, we observe illusions of plausibility, where implausible sentences are perceived as plausible (e.g. 'Julia saw the beer that the lady with the meal quite happily ate in the restaurant'). Across studies, although we find evidence of semantic illusions in implausible sentences, we find less evidence in plausible sentences, a finding consistent with retrieval-based models. These results indicate that linguistic illusions generalise beyond perception of sentence grammaticality and influence the semantic interpretation assigned to a sentence.