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Title: Visual world eye-tracking for language research

Abstract: I will introduce the visual world paradigm as an experimental method for psycholinguistics and related fields. I will argue that if the method is used appropriately it is very informative because participants' visual inspection of the visual scene/display is tightly coordinated with their linguistic processing. Visual world eye-tracking has been very successful because it can be used to determine at which moments listeners and speakers look at different parts of the display/surroundings and for how long they look. As such it is a great method to study the interplay of language, vision, memory, and attention (processes traditionally investigated in isolation). The specifics of the method capture many everyday situations where people give or receive directions for action or talk about things in their visual surroundings. There are however also important caveats that the researchers need to keep in mind. Speech presented or elicited must be related to relevant visual input despite the strong eye gaze - cognitive processing link. Other important caveats include that the speed of spoken word recognition may be affected through priming originating from the visual input and thus recognition of spoken words may be faster than in other situations because their lexical representations are pre-activated. Priming by vision-derived representations also reduces ambiguity (e.g. lexical ambiguity). Priming by a particular visual referent may speed up access of that meaning or sense on hearing the spoken word and thus the paradigm cannot be used to derive reliable estimates of the absolute time listeners need to recognize spoken words. Competitors for instance may be more potent than in other situations but one may also underestimate the likelihood of a lexical candidate or a syntactic structure to be activated. I will finish my talk by giving some recommendations for using the visual world paradigm to probe syntactic processing.