**The importance of speaker knowledge and cooperation in priming scalar implicatures**

According to Post-Gricean approaches to implicatures, the speaker's cooperative intention and knowledgeability, as well as the contextual relevance of the implicature, all contribute to whether or not an implicature will be derived in a given context of utterance. Previous studies on implicature priming have investigated the derivation mechanism for scalar implicatures (e.g. Bott & Chemla, 2016) but did not take into account the role of speaker cooperation and speaker knowledge in their experimental design. In two priming experiments, we investigated the effect of the presence of a cooperative and knowledgeable interlocutor on the derivation of both scalar and ad-hoc implicatures.

Experiment 1 was conducted online on 195 English-speaking adults and involved the presence or absence of knowledgeable and cooperative interlocutors as a between-subjects variable in a structural priming task modelled after Bott & Chemla (2016). Participants played a game, in which they were shown two cards and had to pick the winning one based on a description. The game included two types of trials: primes and targets. In target trials, only one of the two cards was visible and the other was covered, and the description of the winning card included either a lexical (<some/all>) or an ad-hoc scalar expression. Examples of target trials for Experiments 1 and 2 are given in Figure 1. Crucially, the description was adequate for the visible card only if the participant did not derive the implicature.

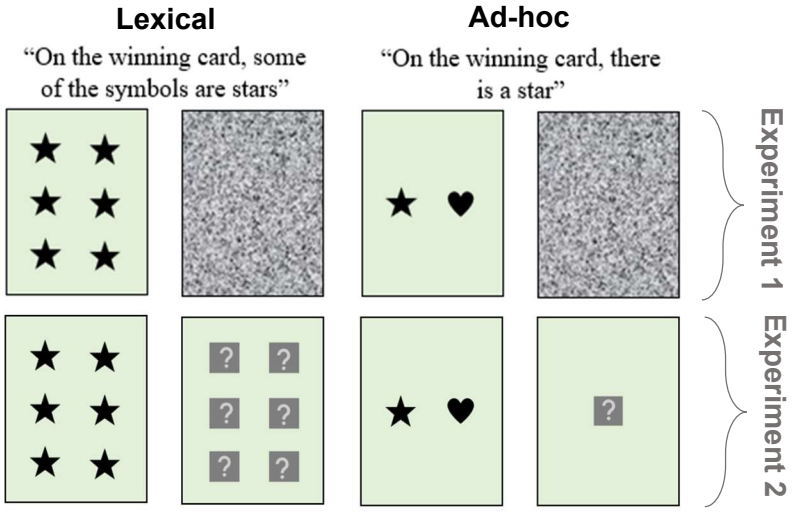
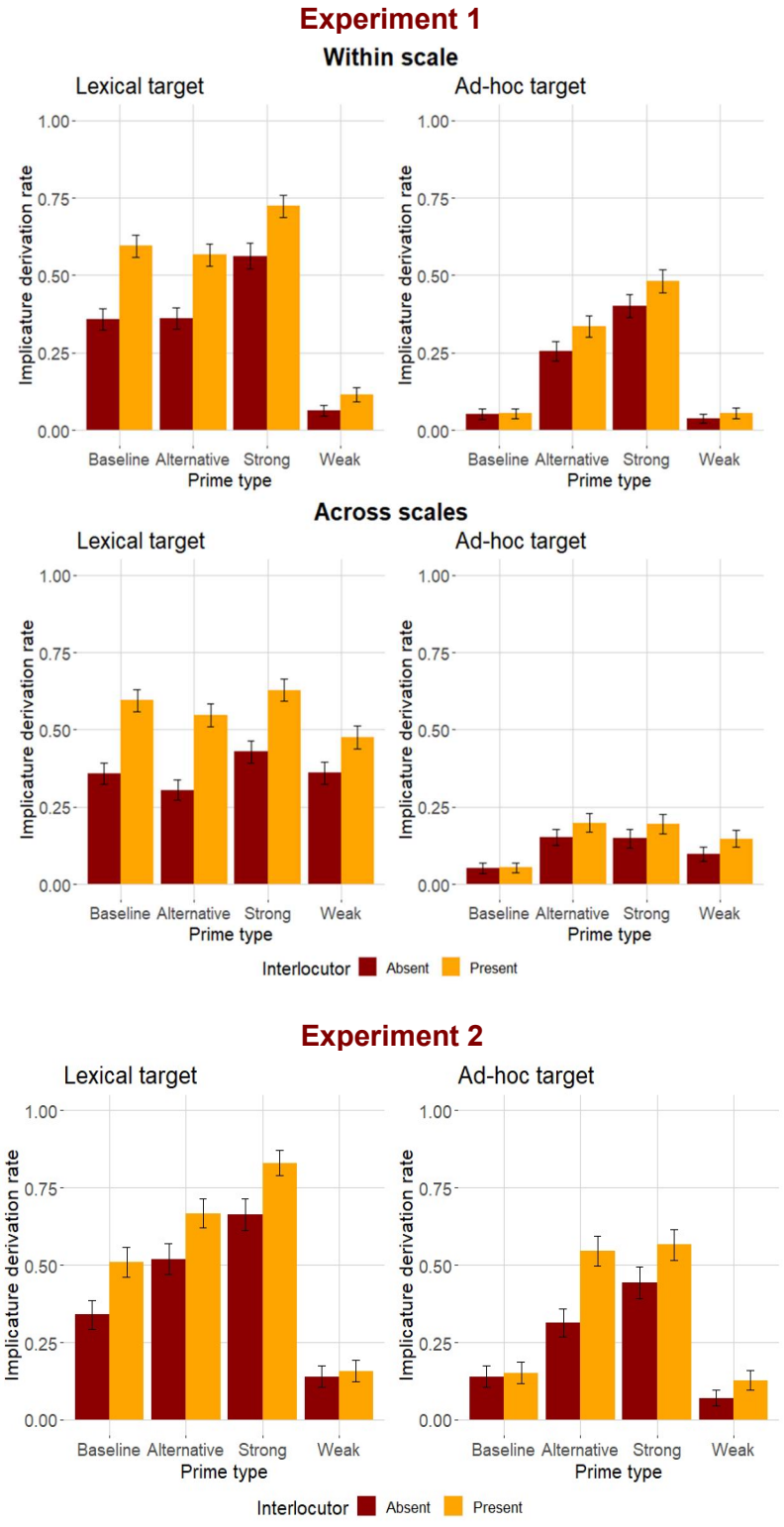



**Figure 1:** Examples of target items in Experiments 1 and 2.

The choice of the covered card in target trials was taken as a measure of implicature derivation. Each target trial was preceded by two prime trials, which could be of four types: Strong, Weak, Alternative, and Baseline. Strong primes induced the strong reading of the sentence, eliciting an implicature (e.g., some and not all), while weak primes elicited a weak reading (e.g., some and possibly all). Alternative primes provided the more informative alternative to the scalar item used (e.g., all). Finally, Baseline primes aimed to establish how participants understood the target trials in the absence of direct priming; these items were shown to participants separately in the first block of the experiment. Implicature priming was tested both within (e.g. lexical primes and lexical target) and across scales priming (e.g. lexical primes and ad-hoc target). The main modification made to the task compared to previous experiments was the addition of the presence or absence of a knowledgeable and cooperative interlocutor in the instructions. It was predicted that the presence of an interlocutor would increase the rates of implicature derivation overall and allow for across-scale priming.

The data were analysed with Generalised Linear Mixed Models and the results confirmed priming is possible both within and across the two scales, but more importantly that the presence of an interlocutor has a positive effect on implicature derivation and allows for priming effects across different scales. Unexpectedly, we also found that the presence of an interlocutor interacted positively with the lexical scale.

A summary of the main results of both experiments is given in Figure 2.




In Experiment 2, we tried to address a potential confound: in this paradigm, the context is only partially available in target trials. This creates an asymmetry between lexical and ad-hoc scales since alternatives are dependent on the context only in the latter case. A modification of experimental items was implemented to limit potential contextual alternatives by covering only the symbols in target trials instead of the whole card. This second experiment did not include across-scale priming, and 110 English-speaking adults took part in it.

The manipulation worked, as the interaction between interlocutor presence and lexical scale was no longer detected in Experiment 2, while other effects were replicated.

The results of the two experiments are consistent with previous findings. More importantly, however, they highlight the role of communicative context and interlocutors in the process of implicature derivation and provide some evidence for a shared derivation mechanism for lexical and ad hoc scalar implicatures, which depends on perspective-taking and intention-reading. The results also yield important methodological consequences for testing pragmatic phenomena, as they show the importance of providing participants with an adequate conversational context.

**Figure 2:** Summary of the results of Experiments 1 and 2

**Reference:** Bott, L., & Chemla, E. (2016). Shared and distinct mechanisms in deriving linguistic enrichment. Journal of Memory and Language, 91, 117–140.