

(In-)definites, (anti-)uniqueness, and uniqueness expectations

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Summary The use of *A* in *A father of the victim* is odd, arguably due to a violation of *Maximize Presupposition (MP!)*, which requires speakers to use the alternative with the strongest presupposition (here *the*, given its uniqueness presupposition). This results in an anti-uniqueness inference (clashing with stereotypical expectations in the example at hand), an ‘anti-presupposition’ (Percus, 2006) that derives from reasoning over the presuppositions of alternative forms. We compare these inferences to the uniqueness inferences associated with definites, while manipulating uniqueness expectations in a picture manipulation task using visual world eye-tracking. This offers a minimal comparison of uniqueness-based inferences that are lexically encoded vs. pragmatically inferred, and furthermore tests the prediction that accommodability of the presupposition (Rouillard & Schwarz, 2018) plays a role in the derivation of anti-uniqueness inferences.

Experiment Participants ($n=75$) played a simple game where they were provided with descriptions (containing *a* or *the*) of spills that happened in different rooms, and then had to try to best match the description by dragging a splash representing a spilled beverage to one of two room settings that contained either one or two relevant objects.

(1) Peter spilled wine on {*a*/ *the*} {TV/ pillow} in the living room.

Moreover, the referenced objects were varied with regards to whether they would be stereo-typically unique (e.g., TV) or not (e.g., pillow) in the given setting (e.g. living room; see Fig. 1/2), as established by a norming study. Picture choices, response times and eye-movements were tracked during the task.

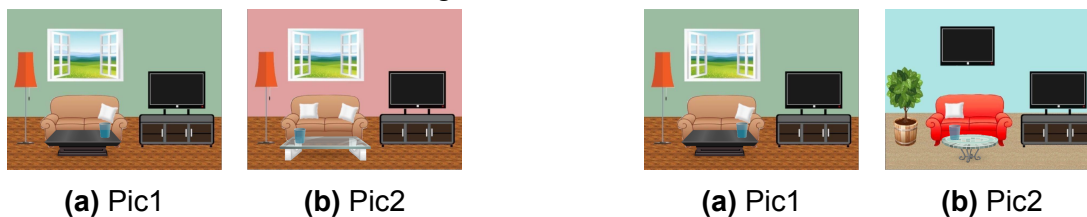


Figure 1: -typically unique: {*The* / *A*} *pillow*, Unique Def. (Pic1) and Non-unique Indef. (Pic2) Targets. **Figure 2:** +typically unique: {*The* / *A*} *TV*, Unique Def. (Pic1) and Non-unique Indef. (Pic2) Targets.

Participants also went through a brief ‘production’ phase of sorts, where they had to drag words to form a sentence of the form above to describe a provided picture, to engage them with the task more by seeing both sides of the game, and to highlight the alternative choices between determiners in relation to the number of relevant objects in the picture. Production and comprehension block order was counterbalanced across participants.

Results Statistics were run using linear mixed effect models in R, with item, condition and subjects as random slopes. For production, we found a significant interaction between definiteness and order ($p<.05$), with low production ‘accuracy’ in the initial production block for indefinites (3). For comprehension (i.e., choice of picture in splash-placement) there was a main effect of block order ($p<.001$), present at all levels, with more target choices for the comprehension block that followed production. There also was a significant interaction between typical uniqueness and determiner in the comprehension block that preceded production ($p<.01$), driven by more frequent target choices for “The” in +typically unique

(parallel simple effect present for comprehension block after production). For "A" we thus find a lower overall comprehension accuracy and bigger susceptibility to plausibility effects biasing against multiple instances of stereo-typically unique objects, especially in the initial comprehension block with indefinites (4). We conclude that, in line with previous results and its assumed pragmatic status, the anti-uniqueness inference of indefinites is less readily available, and less robust than the uniqueness inference of definites.

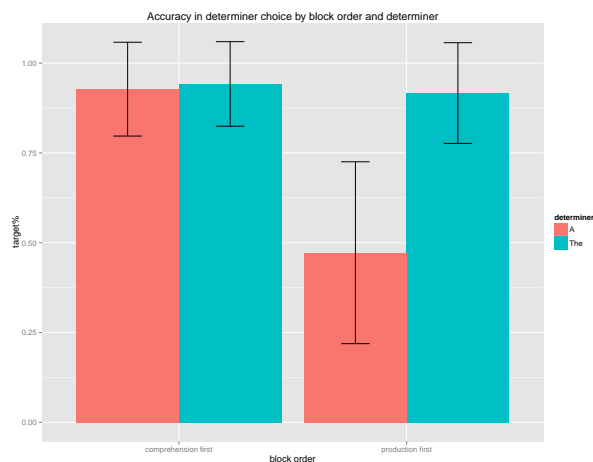


Figure 3: Target choices production by block order

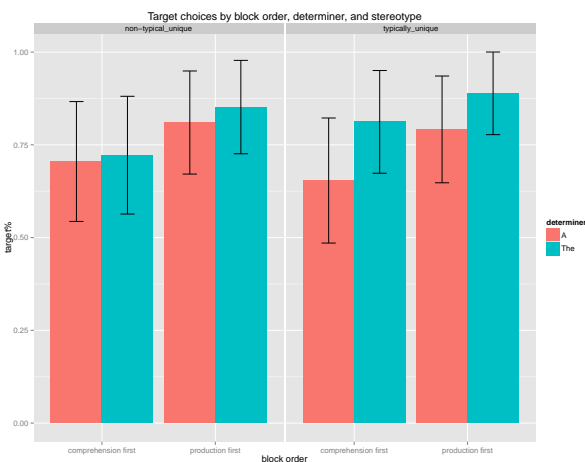


Figure 4: Target choices comprehension

We find no significant differences between determiners in eye-tracking patterns. There is no interaction between determiner and time-windows, and no significant interaction of determiner and stereotype. The only effect of stereo-typical uniqueness is a general bias towards the more unusual picture (e.g., with 2 TVs) for both determiners (see Fig.4).

Conclusion Our results support the idea that the anti-uniqueness inference for indefinites is pragmatically derived from reasoning over presuppositionally stronger alternatives, in that the inference is not robustly present from the start but is boosted by exposure to the alternatives and how they could matter. At the same time, when the anti-uniqueness inference IS accessed, resulting in target choices, then there is no difference in time course between determiners, at least in the present task. This suggests that deriving the inference by reasoning over the presupposition of the alternative does not (necessarily) require extra processing time if the conditions

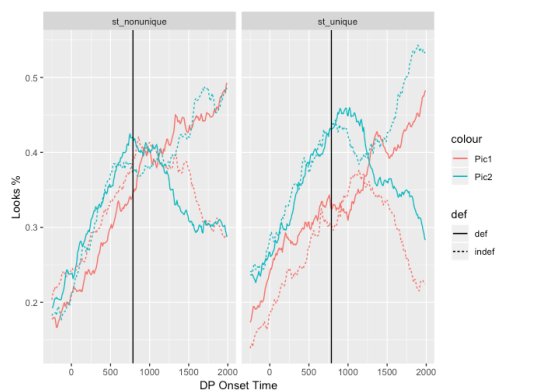


Figure 5: Looks to pic 1 and pic 2 by determiner and stereo-typical uniqueness, all trials)

for this contextual reasoning over alternatives are met. Moreover, we found no evidence that accommodability, as reflected in stereo-typicality of uniqueness, is relevant for activation of *MP!*. **Selected References** • Heim 1991. Artikel und Definitheit. In *Handbook of Semantics*. • Percus 2006. Antipresuppositions. In *Theoretical and Empirical Studies of Reference and Anaphora* • Sauerland 2008. Implicated presuppositions. In *Sentence and Context*, DeGruyter.