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### **Definite reference is not always based on salience**

The currently probably most common view of definite reference is that speakers using definite referential expression (DREs) of the form "the [NP]", mean to refer to exactly one specific entity that satisfies the descriptive content of the NP, and would not use a DRE unless this uniqueness condition were fulfilled.

It has been observed, however, that DREs are frequently *also used in situations* where the uniqueness condition is not fulfilled, and apparently with no harm to communicative success. This has led to the hypothesis (von Heusinger 1995, Lewis 1979, Roberts 2003, and many others) that, perhaps, the uniqueness condition should not be formulated absolutely, in the sense that there is exactly one entity in the discourse context that satisfies the descriptive content of the NP, but rather in the weaker sense that there is exactly one such entity that is clearly more salient in the discourse situation than any potential competitors that would also satisfy the descriptive content of the NP. We tested a specific interpretation of this hypothesis in a visual world study, i.e., we tracked subjects' eye movements with respect to a visual scene, while they listened to

stories containing DREs that could be interpreted as referential with respect to either one or more objects in the display.

Our results show that unambiguous DREs which referred to objects in the display that had already unambiguously been referred to earlier in the story (anaphorically definite referential expressions) or unambiguous DREs which literally fulfilled the uniqueness condition with respect to the scene in the display, without their referent having been mentioned before (firstmention uniquely referential definite expressions), both led to a significant increase of focussing frequency for the intended referents, with a peak at about 1500 ms after onset of the DRE.

When the DREs were not anaphorically definite and there were several referents in the display satisfying the descriptive content of the NP, the DREs obviously did not satisfy the uniqueness condition and were strictly speaking ambiguous. Ambiguous DREs still led to a reliable increase of focussing frequency, however, when one of their referents was more salient than its competitors, either because it was visually isolated from its competitors, or because it was visually close to a previously mentioned referent. In these saliency conditions the relative focussing frequency for the referents was clearly smaller than in the anaphoric and uniqueness cases, and there was a clear delay in the rise of focussing frequency, peaking only at about 2200 ms after onset of the DRE. Focussing frequencies in the saliency conditions were still much closer though to the anaphoric and uniqueness cases than in the condition of fully ambiguous DREs, where no referent led to a significant rise in relative focussing frequency.

We conclude that in situations where the uniqueness requirement for DREs is neither literally satisfied by the visual scene nor supported by unambiguous anaphoric reference, the interpretation of DREs does not proceed by the same cognitive processes that support the regular interpretation of DREs. Visual salience of referents alone still leads to a reliable interpretation of DREs, but is supported by interpretation processes that take more time and yield a lower focussing frequency.

## References

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