

Cataphoric presuppositions

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Presuppositions (henceforth, PSP) display a number of anaphoric properties, most famously formulated in [1], according to which pronominal anaphora are but a special case of PSP-triggering expressions (see also [2]). In accordance with this idea, PSPs have been taken to be characterized by *anaphoric asymmetry* [3], or *left-right asymmetry* [4]: just as cataphoric pronominal reference is only possible for specific constructions, presupposed material must also precede the PSP trigger (unless they can be accommodated). Possible exceptions to this principle have been discussed under the notion of *postsuppositions* [5]. For instance, in Romanian *Și A și B au fugit* ‘A as well as B ran away’ the PSP triggered by *și* ‘too’ (“someone else than A ran away”) can be verified by *B*. What is more, [4] observed that for French *aussi* ‘too’, the presupposed content may follow the trigger. However, the availability of these cataphoric PSPs are strongly limited. Whereas postsuppositions are limited to sentence-internal verification, *aussi* requires the following sentence to be conjoined via *or*, *if* or *unless* (see also [6]).

This paper presents new empirical evidence for a class of predicates that not only allow for the cataphoric verification of PSPs, but also do so at a more general discourse level, without the above (sentence-internal) constraints. This class has been identified as so-called Agent-Evocator verbs (henceforth, AgEv) in research on Implicit Causality [7] and subsumes the well-known ‘verbs of judging’ [8] such as *blame*, *criticise*, and *praise*, but also ‘non-judgment verbs’ such as *thank*, or *congratulate*. These verbs presuppose that there is an occasion upon which the agent acts. If one thanks or criticises someone, there must be some preceding eventuality that the agent considers worthy of gratitude or critique. The cataphoric verifiability of this PSP is evidenced by sequences such as *Peter thanked Lisa. [...] She had helped him on the day before*. Importantly, the cataphoric potential seems related to an expectation that the eventuality denoted by the verb must be justified in subsequent discourse [9].

The present study thus provides additional evidence for the complex properties of projective content, for which recent theoretical approaches and studies from experimental pragmatics have questioned the possibility of a uniform approach [10,11,12].

Experimental Evidence: We report on the results from two experiments ($N = 130$) comparing German AgEv verbs with 13 other PSP triggers with respect to both their cataphoricity as well as their status as PSP triggers in two blocks. The first block investigated the cataphoricity of the PSP triggers. They were embedded in brief discourses realizing three conditions: The *m(eaning)-neutral condition* [cf. 11] required the accommodation of the PSP and served as a baseline (e.g., for the Agent-Evocator verb *thank*: *Peter and Lisa are neighbours. He thanked her.*). The *anaphoric condition* additionally included a sentence verifying the PSP that preceded the target sentence (e.g., *Lisa had helped Peter on the day before.*). Crucially, in the *cataphoric condition* this sentence verifying the PSP followed the target sentence. Participants provided discourse coherence ratings using a slider on a scale from 0 (“completely incoherent”) to 100 (“perfectly coherent”), transformed to $[0, 1]$. For space limitations we only report the results of the AgEv verbs in comparison with pronouns and demonstrative definite descriptions (*this student*) in the abstract. The results are shown in Figure 1-A.

In line with previous research, personal pronouns require the explicit introduction of an antecedent (neutral condition) and cataphoric reference to a subsequent discourse entity is hardly possible (cataphoric condition). A similar finding was obtained for

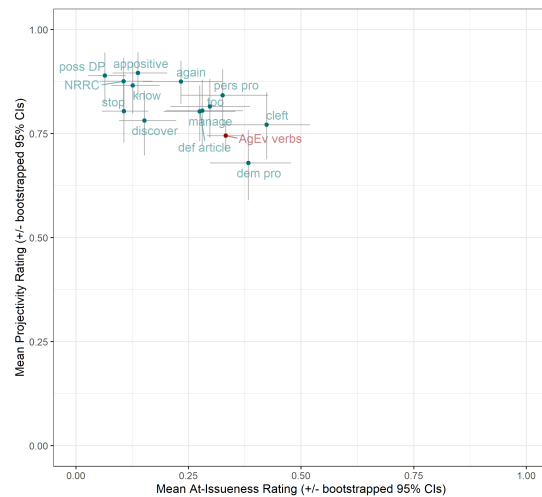
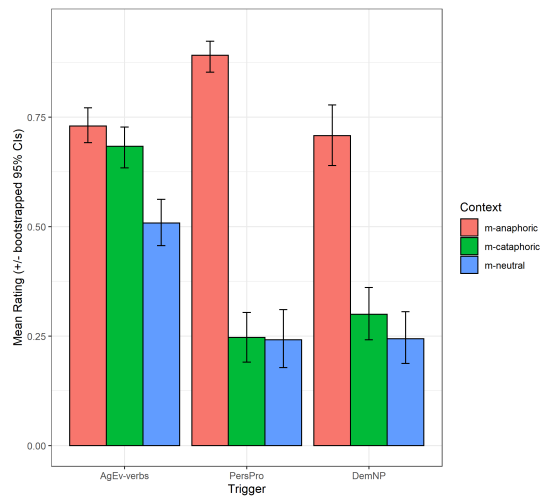


Fig. 1-A: Discourse coherence ratings Fig. 1-B: Projectivity/At-issueness ratings

demonstrative noun phrases. The AgEv verbs, by contrast, both allowed for anaphoric **and** cataphoric verification of the presupposition. In fact, the AgEv verbs were the only PSP triggers in the study showing full eligibility of cataphoric verification. These conclusions were fully confirmed by linear mixed-effects regression analyses.

The second block of the experiment established that AgEv verbs do indeed pattern with other PSP triggers in terms of projectivity and non-at-issue content. We adopted the methods of [12], eliciting projectivity and at-issueness ratings for AgEv verbs compared to the other 13 PSP trigger types. The target sentences were turned into questions and embedded in brief dialogue snippets as in *Sandy asks: “Did Peter thank Lisa?”*. Projectivity was elicited by asking participants *Is Sandy certain that there was an occasion for Peter to thank Lisa?* (projection should evoke a positive answer). Non-at-issueness was measured by means of whether-questions such as *Does Sandy ask whether there was an occasion for Peter to thank Lisa?* (in which case a negative answer should be evoked). Again, answers were collected with a slider. Mean projectivity and at-issueness ratings are presented in Figure 1-B. First, we checked whether the present data replicate one of the key findings by [12], i.e. a (negative) correlation between at-issueness and projectivity. It turned out to be present in the current study, too ($r = -0.68$, $p < .01$). Next, we made sure that the AgEv verbs patterned with the other PSP triggers included in the study. This was corroborated by a cluster analysis categorizing AgEv verbs within the same cluster as the other PSP triggers. The inference of occasioning events triggered by AgEv verbs clearly projected with an on average projectivity rating of 0.74. They turned also out to be non-at-issue with a mean at-issueness rating of 0.33.

Conclusions: Our experiments show that the “occasioning eventualities” associated with AgEv verbs are in fact presuppositional in nature, sharing defining characteristics with a wide range of PSP triggers. At the same time they prove to be special since they are the only triggers in our sample that allow for discourse-cataphoric PSP verification.

References: [1] van der Sandt (1992): Presupposition Projection as Anaphora Resolution. [2] Geurts (1999): *Presuppositions and Pronouns* [3] Beaver & Geurts (2021): “Presupposition”, in *SEP* [4] Chemla & Schlenker (2012): Incremental vs. symmetric accounts of presupposition projection. [5] Brasoveanu & Szabolcsi (2013): Presuppositional *Too*, Postsuppositional *Too* [6] Brasoveanu & Dotlačil (2020): *Computational Cognitive Modeling and Linguistic Theory*. [7] Au (1986): A Verb Is Worth a Thousand Words [8] Fillmore (1969): Verbs of judging. [9] Kehler & Rohde (2019): Prominence and coherence in a Bayesian theory of pronoun interpretation. [10] Karttunen (2016). Presupposition – What went wrong? [11] Tonhauser et al. (2013). Toward a taxonomy of projective content. [12] Tonhauser et al. (2018): How projective is projective content?