

Propositional accessibility depends on the context of the anaphoric clause

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How accessible a proposition (or propositional discourse referent) is for anaphoric uptake is affected by structural aspects of the sentence or clause by which it is linguistically encoded [1, 2]. [2] used biclausal configurations such as (1) in a propositional anaphor resolution experiment. They found that resolution to the second clause as antecedent of the propositional anaphor *das* ‘that’ in the continuation sentence (1d) increased the more structurally independent the second clause was, i.e. with increasing frequency from (1a) to (1b) to (1c), with the manipulated parameters being syntactic subordination/coordination, [+/-] presence of a connective and typographic boundary (comma/full stop). Resolution to the first clause decreased accordingly, while resolution to the entire construction as a whole stayed approximately the same. That is to say, with increasing structural independence, the second clause proposition became more accessible, while at the same time the first clause lost some of its accessibility, with both clauses being at the Right Frontier of discourse [3, 4], i.e. the most recent discourse segment or superordinate to the most recent, in all conditions. [2] also found essentially the same pattern of resolution with items connected by a Result relation. However, [2] also found that when the second clause was a concessive *obwohl*-clause, its propositional accessibility was effectively at 0%. The content of *obwohl*-clauses has been claimed to be presupposed or a conventional implicature [6, 7] and thus *not at-issue* (i.e. not conveying the “main point” of an utterance); on many accounts [8, 9, 10] this would explain why [2] found it to be inaccessible since not at-issue content enters the common ground directly and is not up for discussion.

We conducted 5 propositional anaphor resolution experiments (671 participants overall) on German similar to those presented in [2] that show that it is wrong to assume that the content of *obwohl*-clauses is inaccessible for anaphoric uptake *per se*. Rather, its anaphoric accessibility depends crucially on the meaning of the continuation in which the anaphor occurs. We build on the idea that a clausal construction can convey a certain discourse information status on the proposition it encodes and that an anaphoric continuation can either match or mismatch with this information status, independent of the clause’s lexical content (cf. [11]). Like [2], who used the continuations *das finde ich typisch* ‘I find that typical’ and *das finde ich überraschend* ‘I find that surprising’, but did not test for an effect of continuation, we used continuations that express a subjective judgment on the antecedent proposition. We hypothesized that an *obwohl*-clause such as (2) might match with continuations predicating that i) the content of the antecedent is not the main point of discussion (*off-topicness*) based on the proposal that *obwohl*-clauses are *not at-issue*, ii) the content of the antecedent is common ground-knowledge (*expectedness*) based on the proposal that *obwohl*-clauses are presupposed. We tested this by using continuations matching vs. mismatching *off-topicness* (2c, d) on *obwohl*- and *aber*-clauses (2a,b) and *expectedness* (2e, f) on *obwohl*-clauses. We chose several different lexicalizations for *off-topicness* and *expectedness* each in order to avoid finding effects closely tied to only a particular wording. For comparison, we also tested *nonce*-continuations that have no meaningful content, and also [2]’s original continuations *typisch* and *überraschend* (as in (1d)). The results confirm the hypothesized matching effect for both *off-topicness* and *expectedness* continuations: resolution to the *obwohl*-clause was much higher than in the corresponding mismatching conditions while no strong effect of *off-topicness* was observed for *aber*-clauses that also convey contrast but are not hypothesized to be not at-issue or presupposed (Figure 1). With the other continuations (*nonce*, *typisch*, *überraschend*), resolution to the *obwohl*-clause was between 0% and 10%.

Our results pose a challenge for accounts of at-issueness and propositional accessibility that are based on a version of the *Table* model of discourse [12] where not-at-issue content is directly imposed on the common ground and not up for discussion, since we show that such content can still be accessed directly given the right continuation. They are also not predicted by an alternative account of at-issueness based solely on availability at the right frontier of discourse [4]. Our findings are in line with an account where accessible propositions are ranked in prominence; not-at-issue propositions can be accessed, but they are not the most prominent propositions. However, the fact that with the right continuation they can shift from being effectively not resolved to at all to being resolved to in the absolute majority (cf. results for *off-topicness* in Fig. 1) is also challenging for a unified account of discourse prominence like [5]: if at-issueness is gradient propositional prominence as e.g. [13] proposes, our results show that this

is orthogonal to the clause-combining factors investigated by [2] (cf. (1)). These clause-combining factors are however *also* seen as contributing to propositional prominence ([5, 13]) and they affect the prominence of individual referents in a similar way [2, 14], while (not-)at-issueness does not seem to do so. The question will be whether and how these two different scales of propositional prominence can be brought together.

(1)

- a. Christian hat die Tür aufgeschlossen, weil Norbert die Hände voll hat.
Christian has the door unlocked because Norbert the hands full has
- b. Christian hat die Tür aufgeschlossen, denn Norbert hat die Hände voll.
because Norbert has the hands full
- c. Christian hat die Tür aufgeschlossen. Norbert hat die Hände voll.
Norbert has the hands full
'Christian unlocked the door because Norbert had his hands full'
- d. Das finde ich typisch / überraschend. ‚I find that typical / surprising‘

(2) a. Anne hat die Musik ausgemacht, obwohl Sandra tanzen wollte.

b. Anne hat die Musik ausgemacht, aber Sandra wollte tanzen

‚Anne turned off the music even though (a) / but (b) Sandra wanted to dance‘

c. Das ist (ja auch / natürlich) nicht so wichtig / nicht entscheidend / nicht Thema / nebensächlich ‘That is of course not that important / not crucial / off-topic / beside the point’ [off-topicalness-matching]

d. Das ist (ja auch / natürlich) das Wichtige / das Entscheidende / das Thema / die Hauptsache

‘That is of course important / crucial / on-topic / the main thing’ [off-topicalness-mismatching]

e. Das war klar / zu erwarten / selbstverständlich / nichts Neues / offensichtlich / bekannt

‘That was clear / to be expected / self-evident / nothing new / obvious / known [expectedness-matching]

f. Das ist voll komisch / unerwartet / überraschend / seltsam / verwunderlich / bizarr

‘That is weird / unexpected / surprising / odd / curious / bizarre’ [expectedness-mismatching]

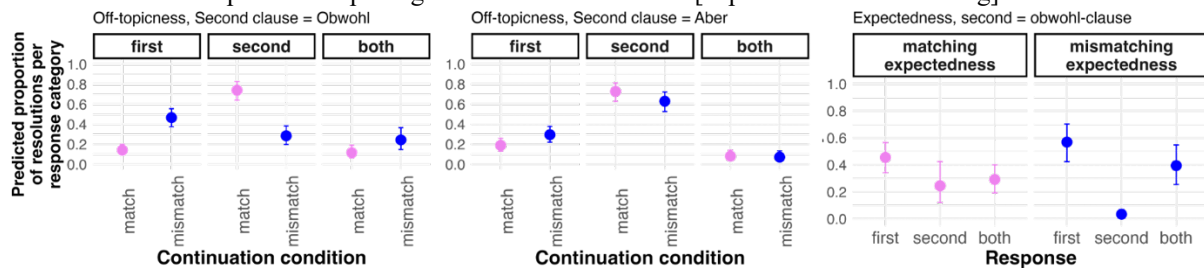


Figure 1: Model-predicted median resolutions and 95%-highest posterior density (error bars) per response category and condition for the experiments with *off-topicalness* (left and middle) and *expectedness* (right) continuations (data from 106 and 65 participants after exclusion). *First* = resolution to first clause; *second* = resolution to second clause (= *obwohl*- or *aber*-clause), *both* = resolution to the whole construction.

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