

Propositional Attitude Reports: the Syntax of Presupposition & Assertion

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Introduction. Propositional attitude verbs (e.g. *say*, *believe*, *know*) are known to be selective about the types of constructions that may occur in their complements. Following Emonds (1970), Hooper and Thompson (1973) identified a set of constructions that, while typically confined to matrix clauses, are also possible under a restricted set of verbs, e.g:

- (1) John {**thinks/*regrets**} that [this book]_i, Mary read t_i. (English Topicalization)
(Maki et al., 1999; Haegeman and Ürögdi, 2010; Haegeman, 2012; De Cuba, 2017; Kastner, 2015)

Other so-called “Main Clause Phenomena” [MCS] include speaker-oriented adverbs, V-to-C movement [C-V2], scene-setting adverbs, and VP-preposing. This study focuses on the problem of properly characterizing the interpretive properties associated with MCS.

Theoretical background. The received view, since H&T, is that the availability of MCS is positively correlated with *assertion*, and negatively correlated with *presupposition*. Broadly, there are two schools of thought: On **positive accounts** (Wechsler 1991; Truckenbrodt 2006; Wiklund et al. 2009; Wiklund 2010; Jensen and Christensen 2013; Julien 2009, 2015; Woods 2016a,b, a.o.), “assertive” verbs such as *say* and *believe* are taken to select or license clauses with an extended C-domain, endowed with features pertaining to Common Ground [CG] management (Bianchi and Frascarelli, 2009), such as Topic, Focus, and Illocutionary Force (à la Rizzi 1997; Speas and Tenny 2003). Topicalization, C-V2 etc, are then *triggered* by features in the C-domain. On **negative accounts** however, “presuppositional” verbs such as *doubt*, *accept*, *regret*, and *know* select clauses headed by some definite or nominal element (à la Kiparsky and Kiparsky 1970). The D-layer in the embedded clause then effectively *blocks* the derivation of different MCS (e.g. Haegeman and Ürögdi 2010; De Cuba and Ürögdi 2010; Haegeman 2014; Kastner 2015). Further theoretical consensus however, has been hard to reach. We identify three key reasons for this.

Problem 1. Assertion and presupposition are themselves complex and multifaceted concepts (e.g. Stalnaker 1974). What aspects of these notions are relevant to the syntax? While some authors take the relevant dimension to be speaker/attitude holder commitment to the embedded proposition (p), others point to p being discourse new information. Yet others take factivity to be relevant.

Problem 2. The empirical and theoretical status of (doxastic) factives: do they *in fact* permit MCS, and are they predicted to do so, given the semantic underpinning of the syntactic theory (e.g. Simons 2007)? Negative accounts claim that *all* factives disallow MCS, while positive accounts take at least the doxastic factives (e.g. *discover*) to allow MCS.

Problem 3. Evaluating apparent disagreements about *specific* MCS. For instance, Bianchi and Frascarelli (2009) give (2) to show that English topicalization *is* in fact licensed under emotive factives, in direct contrast to (??).

- (2) I **am glad** that [this unrewarding job]_i, she has finally decided to give up t_i.

However, these judgments are subtle and potentially context-sensitive. Apparently conflicting empirical claims of this type may simply be due to a failure to control properly for potential pragmatic confounds. Moreover, theories about the interpretive constraints on MCS are typically based on acceptability judgments/distributional data for MCS under a small set of verbs, taken to represent larger *semantic classes*. However, it is far from clear what the reality of these classes are, and which verbs actually belong to which class. Are (2) and (??) *in fact* contradictory judgments, or do they represent some (unknown) dimension of variation?

Summary, problems. Without *comparable* data from different MCS across different languages, which controls for contextual and lexical properties of the relevant sentences, it is difficult to falsify and evaluate competing theoretical accounts. For instance, the current state of the literature is compatible with negative accounts being correct, in theory, about MCS being blocked in “presuppositional contexts”, but mistaken in their empirical assumptions about the doxastic factives. However, it may equally be true that negative accounts are right, about English topicalization, while positive accounts are right, about German C-V2.

Current Study. This talk presents results from a large-scale cross-linguistic experimental study, investigating the specific lexical and semantic-pragmatic constraints on four different MCS, across

three languages. We collected judgments of acceptability and judgments of interpretation, for the same exact same 40 sentences. Each of the 40 critical items (and the 32 fillers and controls) consisted of a unique verb+lexical content combination, set in exactly the same discourse context. The study manipulated the following independent variables: verb and verb-class, matrix negation, type of MCS [C-V2; Topicalization; Scene-setting Adverbs; Speech Act Adverbs; Unmarked controls], and language [English; Swedish; German]. Each subject thus saw the same 40 critical sentences involving 20 positive and negative verbs from five purported lexical classes, argued (along with negation) to differ with respect to the licensing of MCS. For an objective measure of the pragmatic dimensions of interest, the 40 critical items were independently tested in the unmarked control version for: speaker commitment to p; attitude holder [AH] commitment to p; likelihood that p is discourse novel. All judgments were given on a 9-point Likert Scale with the end-points marked. 1,272 participants took part in the study. The z-scored data was analyzed using linear mixed-effects models, predicting the acceptability of the different MCS-variants from verb identity and class, plus the three pragmatic factors.

PRAGMATICS

- Robust association across languages of belief(p)(attitude holder) and discourse old/new status of p with verb class/polarity;
- Results from two discourse conditions shows these are not very context sensitive;
- Belief(p)(speaker) is only lexically associated with factive verbs (cf. Tonhauser 2018);
- Predictions by attitude holder belief and discourse novelty hypotheses differ for response predicates and emotive factives. (Question about presupposed belief(p) with factives!)

MAIN CLAUSE SYNTAX

- ONLY E-V2 patterns like MCS in the sense of Hooper and Thompson (1973);
- E-V2 is predicted by discourse status of p as new vs. given information (à la Caplan and Djärv 2017 for Swedish);
- The other MCS are not distinguished in terms of any of these (pragmatic/lexical) dimensions;
- Speaker and attitude holder belief play no role in the licensing of MCS;
- Raises questions for what a theory of MCS should look like: more heterogeneous class than previously thought, both in terms of distribution and pragmatic licensing conditions.

Discussion. These results have important implications for the separate question of what a theory of MCS should look like. First, we find that MCS is a much more heterogeneous class than previously thought, both in terms of distribution and pragmatic licensing conditions. Second, these results allow us to falsify a number of popular theoretical claims, while strongly supporting others. They support the view that C-V2 is licensed by Discourse Novelty (as argued by Caplan and Djärv 2017 based on Swedish corpus data), but not related to the presence of a belief(p) or commitment-to-p context (à la Truckenbrodt 2006; Wiklund 2010; Julien 2015; Woods 2016b,a,b). Notably, the robust interaction of matrix negation and predicate type is evidence against the hypothesis that the availability of MCS is due to local lexical selection for a particular type of clause (contra e.g. Wiklund et al. 2009; Kastner 2015). Finally, while the results support the view that C-V2 is ruled out in contexts where p is discourse old, we find strong evidence that this does not track Factivity (contra Kastner 2015, and Haegeman and colleagues). (These results are still compatible with there being a common denominator for of each type of MCS investigated, such as “Common Ground management” (Bianchi and Frascarelli, 2009). The talk also discusses implications from the current study for the question of whether certain predicates select DP complement.

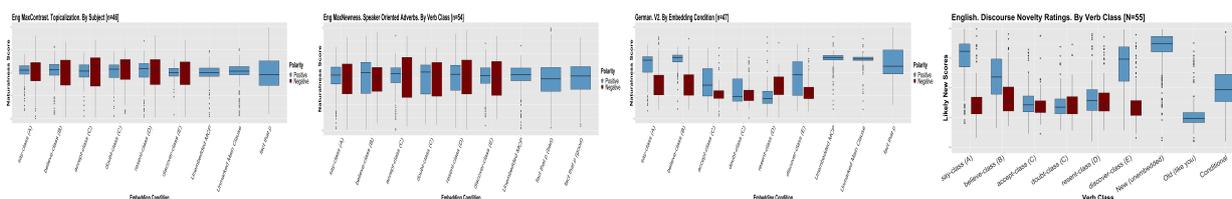


Figure 1: From left to right: Eng Topicalization; Eng Speaker Oriented Adverbs; Ger EV2; Likelihood that p is discourse new. Blue = Positive; Red = Negated. [The 3 rightmost bars are controls/fillers; not expected to correlate.]