

The discourse function of adversative conjunction

In this study, we investigate and provide an analysis of the discourse function of adversative conjunctions *ma* in Italian and *but* in English, focusing on their occurrences in interrogatives.

Discourse uses of *ma* and *but*. In addition to being used as adversative connectives conjoining two declarative sentences, *ma* and *but* also have discourse uses where they take only one argument, which can be a declarative sentence as in (1) (e.g. Jasinskaja 2012; Zeevat 2012) or an interrogative sentence as in (2).

- (1) A: I will take the 9 o'clock train tomorrow.
B: *Ma* lo sciopero delle ferrovie inizia alle 7:00.
'But the railway strike will begin at 7:00.' (sp's bias: A can't take the 9am train)
B': *But* the railway strike will begin at 7:00. (sp's bias: same)
- (2) Context: Carla believes Mia is vegetarian. Mia has just ordered a steak.
a. Carla: *Ma* non sei vegetariana? ('But aren't you vegetarian?')
Carla: *But* aren't you vegetarian?

Informally, in such uses, *ma* and *but* communicate that the speaker (*sp*) is objecting to or surprised by something that has been said or done in the context of utterance (Anscombe & Ducrot 1977; Jasinskaja 2012).

However, the occurrence of English *but* in interrogative sentences is restricted: while the Italian constituent question in (3) is felicitous and has both a negative bias interpretation and a complete ignorance interpretation, its English counterpart is unacceptable.

- (3) A: Someone will help Teo.
B: *Ma* chi lo aiuterà? 'Who will help him?'
Negative bias: 'nobody will help Teo' / *Ignorance*: 'no idea who will help Teo'
B': #*But* who will help Teo?

Research questions. What is the semantic contribution of declarative-taking and interrogative-taking *ma*? What is the difference between *ma* and *but*?

Proposal. First, we propose an account of Italian discourse *ma* in both declarative and interrogative sentences, beginning with the latter. We assume that a question denotes a set of possible answers and, specifically, that the denotation of a *wh* question includes only positive answers (cf. Hamblin 1973). Our model is built around the concepts of Questions Under Discussion and Relevance and introduces the notion of *support*, as defined in (4).

- (4) $\llbracket \mathbf{ma} \rrbracket^c(Q)$ is defined in a context c only if there is a proposition p salient in c s.t. p and Q are relevant to QUD and **do not support the same answer** to QUD; if defined, $\llbracket \mathbf{ma} \rrbracket^c(Q) = \llbracket Q \rrbracket^c$; where: (a) a proposition p supports an answer r to QUD in c just in case p provides evidence in c for r ; (b) a question Q supports an answer r to QUD just in case there is (at least) one answer $q \in \llbracket Q \rrbracket^c$ such that $\text{Dox}_{sp} \subseteq q$ and q provides evidence for r .

Note that we depart from Roberts (1996)'s definition of Relevance and, following Goodhue & Wagner (2018), we assume that a conversational move is relevant to the QUD if either it provides evidence for or against one of the answers to the QUD, or it raises a question as part of a strategy to answer the QUD. We understand evidence for p as information that increases the probability that p is true (Goodhue and Wagner 2018).

This proposal correctly accounts for both the negative bias interpretation of (2) and (3) and the complete ignorance interpretation of (3). (4) requires that there be a salient proposition p supporting an answer r to the QUD. *Ma*'s presupposition is satisfied either ① if there is a proposition q in the denotation of the question Q s.t. sp believes q to be true and q provides evidence for an answer to the QUD other than r , or ② if there is no proposition in the denotation of Q s.t. sp believes it and it provides evidence for r . Case ① accounts for the occurrence of *ma* in biased negative

polar questions like (2): here, the QUD is whether Mia is vegetarian; there is contextual evidence supporting the answer that Mia is not vegetarian; but, since negative polar questions of this kind carry the bias that *sp* believes the positive answer to the question (cf. Romero & Han 2004), there is a proposition believed by *sp* (that-Mia is vegetarian) supporting a different answer to QUD. Case ② explains both the negative bias interpretation of (3) (*sp* believes all propositions in *Q* to be false, i.e. *sp* believes that nobody will help Teo) and the ignorance reading of (3) (there is no proposition in *Q* that *sp* believes, i.e. *sp* is completely ignorant about *Q*). Case ② also explains *ma*'s occurrence in 'out of the blue' utterances like (5): assuming that the salient proposition *p* is that-Leo is trying to wake Bea up and QUD is whether it is time to wake Bea up, *ma*'s presupposition is satisfied because *sp* is ignorant about the answer to *Q*.

- (5) *Max wakes Bea in the middle of the night.*
 a. Bea: *Ma che ore sono?* (lit: but what time is it?)
 Bea: #*But* what time is it?

Now, English *but* is disallowed in the ignorance contexts and in *wh*-questions with negative bias (like (3)), but it is allowed in negative biased polar questions. To capture these facts, we propose to model the meaning of *but* as carrying a stronger presupposition than *ma*: whereas *ma* presupposes that the salient proposition *p* and *Q* do not support the same answer to the QUD, *but* presupposes that *p* and *Q* support *different* answers to the QUD.

(6) $\llbracket \text{but} \rrbracket^c(Q)$ is defined in *c* only if there is a proposition *p* salient in *c* s.t. *p* and *Q* are relevant to QUD and **support different answers** to QUD; if defined, $\llbracket \text{but} \rrbracket^c(Q) = \llbracket Q \rrbracket^c$
 It follows that *but* will not be felicitous in a situation where *sp* is completely ignorant about *Q* (ignorance reading of (3) and (5)), or when *sp* believes no $q \in Q$ to be true (negative bias reading of (3)). As for negative polar questions like (3), *but*'s presupposition is satisfied by the positive bias carried by this kind of questions. In sum, question-taking *but* and *ma* both presuppose a contrast between a salient proposition *p* and a question *Q* with respect to the QUD; however, while *ma* merely requires *p* and *Q* not to support the same answer to the QUD, *but* carries a stronger requirement that *p* and *Q* must support different answers to QUD. As a result, we correctly capture the fact that *ma* is felicitous in both complete ignorance questions and in negatively biased questions, whereas *but* is only allowed in negatively biased questions.

Declarative-taking *ma* and *but* take a proposition as their argument, but retain the strength of the presupposition of their interrogative-taking counterparts, as shown in (7) and (8).

- (7) $\llbracket \text{but} \rrbracket^c(p)$ is defined in *c* only if there is a proposition *q* salient in *c* s.t. *p* and *q* are relevant to QUD and **support different answers** to QUD; if defined, $\llbracket \text{but} \rrbracket^c(p) = \llbracket p \rrbracket^c$

- (8) $\llbracket \text{ma} \rrbracket^c(p)$ is defined in *c* only if there is a proposition *q* salient in *c* s.t. *p* and *q* are relevant to QUD and **do not support the same answer** to QUD; if defined, $\llbracket \text{ma} \rrbracket^c(p) = \llbracket p \rrbracket^c$

However, since proposition-taking *ma* and *but* assert the truth of their argument, the difference between the two is obliterated: since both *p* and *q* are relevant to the QUD, the weaker requirement carried by *ma* (that *p* and *q* not support the same answer), can only be satisfied if they support different answers. In our study, we consider a variety of contexts and types of questions, extend this proposal to discourse adversative conjunctions in other languages (e.g. French *mais*, Spanish *pero*), and situate *ma/but* within the typology of discourse particles, in particular *bloss* (Eckardt & Yu 2020), *denn* (Theiler 2020), and *doch* (Grosz 2014; Rojas-E. 2013; Kaufmann & al. 2012).

References. Anscombre, J. C. & O. Ducrot (1977). Deux mais en français? *Lingua* 43. Eckardt & Yu (2020). German *bloss*-questions as extreme ignorance questions. *Linguistica Brunensia* 68. Grosz (2014). German *doch*: An element that triggers a contrast presupposition. *CLS* 46. Jasinskaja (2012). Correction by adversative and additive markers. *Lingua* 122. Kaufmann & al. (2012). Epistemic particles and performativity. *SALT* 22 Roberts (2012). Information structure in discourse: Towards an integrated formal theory of pragmatics, *Semantics & Pragmatics* 1. Rojas-Esponda (2013). A QUD account of German *doch*. *Semantics & Pragmatics* 7. Romero & Han (2004). On negative yes/no questions. *Linguistics & Philosophy* 27. Theiler (2020). *Denn* as a highlighting-sensitive particle. *Linguistics & Philosophy* 44 Zeevat (2012). Objection marking and additivity. *Lingua* 122.