

Mica questions and bias

The Italian particle *mica* co-occurs with negation in polar questions to signal a ‘bias’ on the part of the speaker; its presence further affects the distribution of such questions. This is illustrated by the Italian minimal pair in (1), which are differentiated by contexts A and B; these contexts systematically manipulate Clara’s prior expectations as well as recent evidence.

- (1) Context A: Clara invites Luca over for dinner and cooked many things. However, Luca barely touches any food. Clara asks him:
- a. ✓ Non hai mica già mangiato? b. # Non hai già mangiato?
 NEG have.2.sg MICA already eaten NEG have.2.sg already eaten
 ‘Have you already eaten?’ ‘Have you not already eaten?’
 (implies: C. is disappointed that L. ate.)
- c. # Did you not already eat?
- (2) Context B: Clara invites Luca over for drinks late in the evening. However, Luca gets there and asks if she has any food. Clara asks: (1a): #. (1b): ✓. (1c): ✓.

We propose that both Italian negative questions and *mica* questions signal a mismatch between the questioner’s prior expectations and recent evidence, but achieve this by different means. Italian negative questions, like English ‘inner negation’ polar questions such as (1c) (Ladd 1981, Büring and Gunlogson 2000, van Rooy and Safarova 2003, AnderBois 2011a) imply that there is recent evidence for the negative content proposition, and a prior expectation for the truth of negation’s prejacent; this is accomplished via pragmatic reasoning along the lines of van Rooy and Safarova (2003). While the *kind* of mismatch signaled by *mica* questions is the same as regular negative questions, there are two key differences, the direction of the mismatch, and its strength. The first puzzle, then, is how it is that *mica* reverses both of these implications from a regular negative polar question: Clara in (1a) implies that she had hoped Luca wouldn’t eat, but that his behavior suggests that he has. Moreover, the bias in plain negative questions is described as ‘weak’, but the bias involved in *mica* questions is intuitively stronger: while negative questions are compatible with very weak prior expectations and weak evidence, *mica* questions involve a much stronger degree of prior expectations. (The strength of the bias resembles that of English *outer* negation questions, e.g. *didn’t you already eat?* (Ladd 1981, Romero and Han 2004, AnderBois 2011a), though the content is much different.)

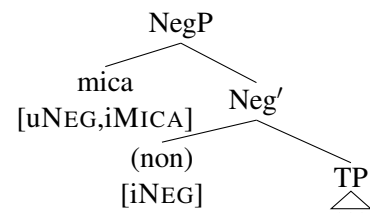
(3) Data summary:

Question type	prior expectation	recent evidence
<i>[non [mica [ϕ]]]</i>	$\neg\phi$	ϕ
<i>[non [ϕ]]</i>	ϕ	$\neg\phi$

Syntax Prior syntactic work (Cinque 1976, Zanuttini 1997, Garzonio and Poletto 2009) has shown that *mica* is morphosyntactically a negative element: it can appear in a concord chain with *non*, and its licensing is parasitic on *non*. In polar questions *mica* can also appear in sentence-initial position without *non*, and without any meaning difference, as in (4). Following Cinque (1976) we assume that ‘autonomous’ *mica* has moved to Spec,NegP and serves as the only realization of negative features in the chain.

- (4) Mica hai già mangiato? (‘Autonomous’ *mica*) (5) *Mica* questions, Logical Form

Cinque’s proposal implies that autonomous and non-autonomous *mica* both involve the same features at LF, and we will adopt this idea here. Moreover, we will assume that at LF, *mica* always appears in the specifier position that it surfaces in when autonomous, leading to the LF structure in (5).



Semantics & pragmatics Our proposal has two parts. First, bias in Italian plain negative polar questions is a pragmatic inference (following several authors on English inner negation questions; van Rooy and Safarova 2003, Farkas and Bruce 2010, AnderBois 2011b). Second, *mica* in a question compositionally contributes a biasing implication, blocking the pragmatic computation of negative question bias.

The general idea of pragmatic accounts of negative questions is that a hearer reasons about why a speaker would choose a negative prejacent over a positive one. We will adopt van Rooy and Safarova’s 2003 account in particular: a negative question signals that the ‘utility value’ of the negative proposition is higher than that of the positive. (We set aside the utility-based account of outer negative questions, which do not pattern with any of the types discussed here.) In the present examples, utility corresponds to informativity/surprisal, and so in a negative polar question, the negative proposition has a higher surprisal value than the positive one, relative to a previous belief state. The utility value account thus derives that regular negative questions imply a prior expectation for ϕ . While van Rooy and Safarova do not directly address the recent evidence component in their formalization, this also follows from straightforward pragmatic reasoning: if a speaker signals that they had a prior expectation that ϕ , but is asking a question that may be resolved with $\neg\phi$, then they must have had some reason to revise that prior expectation downwards.

The particle *mica*, on the other hand, clearly makes some compositional contribution. While we have set aside data outside of questions, *mica* can appear in other speech act types, including assertions and commands, with a similar meaning. We propose that *mica* has grammaticalized a version of the prior expectation component: it implies that its prejacent was expected on a prior belief state of the questioner. While it is unclear what variety of implication this is (it is non-at-issue and non-defeasible), for the sake of discussion we will treat it as a presupposition following the syntactic literature (Cinque 1976), and a version of this is formalized in (6).

$$(6) \quad \llbracket \text{mica} \rrbracket^{w,t,c} = \lambda p_{\langle st \rangle} . p \quad \text{presupposes: } \exists t' < t : \forall w' \in \text{Dox}_{s_c}(w)(t') : p(w')$$

The presupposition is that there is a past set of doxastic alternatives for the speaker (s_c) where p holds. Since we are assuming an LF where *mica* scopes over negation, p is always negative (i.e. $p = \neg\phi$ in the table above), and therefore the strong prior expectation component of *mica* questions follows. This presupposition blocks the pragmatic reasoning sketched above: the presupposition is simply incompatible with the inference that the surprisal value of the negative proposition p is high, and in fact predicts that it should be low. This also leads to a reversal in the recent evidence inference, which we assume is also derived pragmatically for *mica* questions (which are still a marked form): if the speaker’s prior expectation, but not necessarily present one is in support of $\neg\phi$, and they are asking a question about ϕ , then they must have received some evidence to weaken that past belief.

Further predictions While *mica* questions often have a bouletic component aligned against ϕ , our account predicts that this is not necessary. Two uses of *mica* show that this prediction is correct: polite requests, and incredulous questions. In polite questions the prior expectation is used to provide the hearer with an ‘out’ for a request, by indicating that that expectation was correct. In incredulous questions, the prior expectation simply signals a strong mismatch with the present scenario.

(7) Non avresti mica una sigaretta?
NEG have.CON.2sg MICA a cigarette? ‘Do you have a cigarette by any chance?’

(8) Context C: Mario likes buying lottery tickets. His sister Laura knows that his chances of winning are slim. One day, Mario comes home with lottery ticket in one hand and champagne in the other.
Laura: Non hai mica vinto la lotteria?
NEG have MICA win the lottery ‘Have you won the lottery??’

In summary, we have given a semantic/pragmatic account of a novel type of biased question in Italian, marked by the negative element *mica*. The proposal is that *mica* grammaticalizes a pragmatic inference found with ordinary negative questions, that the questioner’s prior epistemic state made the prejacent of *mica* highly likely. In contributing this inference non-defeasibly in combination with negation, *mica* consequently causes a reversal in reasoning about what sort of recent evidence would lead to asking a question, and thus the difference between negative and *mica* questions follows directly.

Selected references: Cinque, G.: 1976, ‘Mica’. *Annali della Facolta’ di Lettere e Filosofia dell’Universita’ di Padova* 1. • Ladd, R.: 1981, A first look at the semantics and pragmatics of negative questions and tag questions. *Proc. CLS* 17. • Van Rooy, R. and M. Safarova: 2003, On Polar Questions. *Proc. SALT* 18.