Bias in negated (Campania) Italian questions with discourse particles and prosodic prominence

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1. INTRODUCTION. A growing line of research investigates the role of various grammatical components (prosody, syntax, discourse particles, the presence of negation) in the expression of different kinds of question bias. We contribute to this body of work by experimentally investigating the impact of lexical and prosodic prominence cues on the expression of bias in Italian negative polar questions (NQs).

2. BACKGROUND. Italian NQs can convey different types of bias **[3].** (1b) is felicitous in the context in (1a), where the speaker has a pre-existing bias for the *positive* answer (that H has paid). In some varieties of Italian, the particle *mica* reverses this default bias: (2b) requires a context like (2a) where the speaker expected the *negative* answer (that H has not paid).

(1) a. *Positive bias context*: At the restaurant, S asks H to pay while she goes to the bathroom. As they are leaving, a waiter calls them with an alarmed expression. S asks H:
b. Non hai pagato il conto?
Not have.2sg paid the bill
'Haven't you paid the bill?'

(2) a. *Negative bias context*: At the restaurant, S tells H that she will buy him dinner. As S returns from the bathroom, she sees H hurriedly putting away his wallet. S asks H:
b. Non hai **mica** pagato il conto?
Not have.2sg MICA paid the bill
'You haven't paid the bill, have you?'

3. RESEARCH QUESTIONS: THE ROLE OF PROSODY. [4] observe in passing that bias reversal is also possible for *mica*-less NQs like (1a) if pronounced with a 'non-standard intonational contour' (on which **[4]** don't elaborate). This raises the following questions: [**RQ1**] what prosodic profile facilitates bias reversal?; [**RQ2**] how do lexical cues (*mica*) and prosody interact? We investigate these questions for the Italian spoken in Campania, which features the particle *mica* and has been studied for the effect of intonation on question bias (**[8, 9]**). The interaction of *mica* and prosody in connection to question bias has to our knowledge not been investigated yet.

4. PILOT PRODUCTION STUDY. As a first step towards addressing **RQ1**, we ran a small context elicitation study (10 speakers, 4f, 6m). Participants from Salerno and the surrounding region were provided with pairs of contexts (enforcing either positive or negative speaker bias) and NQs (with / without *mica*) and were asked to read the question in the given context. *Mica* NQs were presented only on negative bias contexts; NQs without *mica* were presented in both positive and negative bias contexts. The results were as follows: (i) *mica*-NQs were realized with a pitch accent on *mica*; (ii) in positive bias contexts, NQs without *mica* tended to realize a pitch accent on the main verb (*pagato* in (1) -(2)); (iii) in negative bias contexts, **NQs without *mica* realized a prominent pitch accent on the auxiliary**, all with some positional variation, but tentatively analyzable as L*H or LH* following **[8, 9]** (see Figure 1).

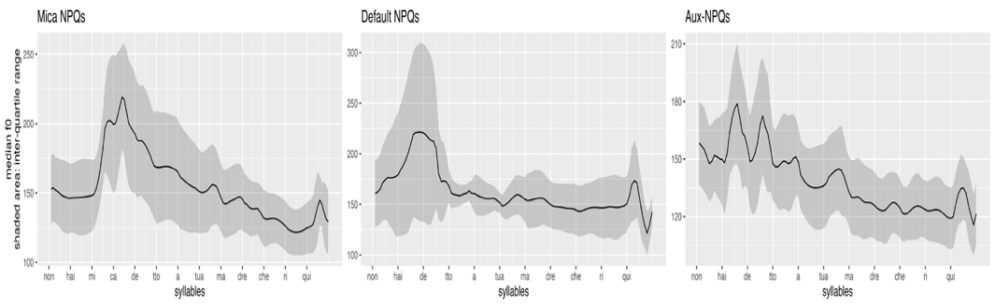

Figure 1: Averaged smoothed pitch contours (n=10) on normalized time (**[13]**). Labels: *Mica* NQs; Default NQs (no *mica*, positive bias), Aux NQs (no *mica*, negative bias)

5. PERCEPTION STUDY (ONGOING). We are currently running a perception experiment (preregistered: https://tinyurl.com/42wr8tm6), where participants decide in which context (positive *vs*. negative bias) an intonational realization (default NQs with pitch accent on main verb *vs*. *mica*-NQs *vs.* NQs with prosodic prominence on the auxiliary (Aux-NQs)) is felicitous. Our expectations regarding RQ1 and RQ2 follow.

RQ1: we expect that (i) default NQs will prefer positive contexts, but (ii) both *mica*-NQs and Aux-NQs will prefer negative bias contexts. **RQ2: [1,11]** show that position and form of prominent pitch events have a distributional rather than categorical relation to interpretation in production. Given this, and the variability in pitch accent position in default NQs and Aux-NQs in the elicitation data, we expect the preference for negative bias contexts to be stronger for *mica*-NQs, as they are unambiguous. If the results bore this out, it would suggest that prosodic prominence draws attention (**[7]**) to interpretations that are generally available to a construction but less likely under default conditions. Prosodic prominence would increase the probability of such an interpretation, but it would not trigger meaning change like a lexical expression, as *mica* does. However, it is also possible that the association between the position of the prominent pitch accent and the type of bias is more categorical in perception than what has been observed for production.

6. FURTHER STEPS. A further question is whether the prosody of negatively biased NQs can be linked to specific semantic components involved in bias generation. **[3, 10, 12]** derive question bias via Common Ground (CG) management operators which combine with a proposition *p* and signal that an agent thinks that *p* should (VERUM) / should not (FALSUM) be CG. These operators are speaker-oriented in assertions but shift to the hearer in questions (interrogative flip, IF). **[3]** analyze negation+*mica* as introducing a FALSUM that is always speaker-oriented: it encodes that the *speaker* believes that *p* should not be CG. This suggests the possibility that **prosodic prominence on the auxiliary is a cue for lack of flip** (**H1**).

On-going work on the Italian evidential future (EF) provides preliminary support for **H1**. The EF displays interrogative flip (see, e.g., **[2, 4]**). The assertion in (3a) conveys that the *speaker* lacks direct evidence that A. is hungry; the question in (3b) signals instead that the *hearer* lacks direct evidence regarding whether she is hungry (and is, as a result, distinctly odd).

(3) a. Anna avrà fame.
Anna have.fut.3sg hunger.
'Anna is hungry, I suppose.'

b. # Avrai fame?
have.fut.2sg hunger?
'Are you hungry, what's your guess?'

[6] discuss questions where the EF does not flip (illustrated in (4)). Initial elicitation data indicate that these questions (unlike the corresponding flipped questions) tend to be realized with a prominent pitch accent on the auxiliary (*avrai*), as expected under **H1**. Establishing whether there is a reliable correlation between prosodic profile and lack of flip will shed light on our understanding of the interaction between form and meaning in non-canonical questions.

(4) a. Context: S is telling H about her persisting heartburn problems. S asks H:
b. Dopo tutto questo tempo avrai fatto una gastroscopia?
After all this time have.fut.2sg done a gastroscopy?
'After all this time, surely you have done a gastroscopy?'

REFERENCES: [1] Calhoun, S., La Cruz, E., & Olssen, A. (2018). The interplay of information structure, semantics, prosody, and word ordering in Spanish intransitives. *Laboratory Phonology: 9*(1). **[2] Eckardt, R. and Beltrama, A. (2019**). Evidentials and Questions. In *Empirical Issues in Syntax and Semantics* 12. CSSP. **[3] Frana, I., & Rawlins, K**. **(2019).** Attitudes in discourse: Italian polar questions and the particle *mica*. *S&P* 12. **[4] Frana, I. & Menéndez Benito, P. (2019).** Evidence and Bias: The case of the evidential future in Italian. SALT 29. **[5] Frana, I. & Menéndez Benito, P. (2023).** The Evidential Future in Italian. *NALS 31*. [**6] Frana, I. & Menéndez Benito, P. (2025).** Evidentials in bias questions. The view from Italian and Spanish, talk at Going Romance 2025. **[7] Lialiou, M. (2025).** Prosody and attention orienting. Language Science Press. **[8] Orrico, R., & D'Imperio, M. (2022)**. Intonational cues to speaker bias in questions and the role of language exposure. *Journal of Pragmatics*, *200*. [**9**] **Orrico, R., Portes, C., & D'Imperio, M. (2025).** The contribution of intonation in the conveyance of question bias. In *Biased questions*. Language Science Press. [**10] Repp, S. (2013).** Common ground management: Modal particles, illocutionary negation and VERUM. In *Beyond Expressives. Explorations in Use Conditional Meaning.* **[11] Roessig, S. (2021).** Categoriality and continuity in prosodic prominence. *Language Science Press*. **[12] Romero, M. & C. Han. 2004**. On negative Yes/No questions. *L & P* 27. **[13] Xu, Y. (2013).** ProsodyPro—A Tool for Large-scale Systematic Prosody Analysis. Proceedings of Tools and Resources for the Analysis of Speech Prosody (TRASP).