

## Towards an integrated model of adversative questions: the case of Italian *ma* (but)

### Aim of the work

In this work we consider the class of special questions (Obenauer 2004, 2006, Obenauer & Poletto 2000, Hinterhölzl & Munaro 2015) introduced by the adversative particle *ma* (but) in Italian. Our aim is to provide a theoretical account for this kind of constructions integrating their various components: **syntax**, **prosody** and **gestures**. Our working hypothesis is that the appropriate interpretation and the pragmatic properties of these sentences can be fully captured only by means of an analysis of all these components as relevant at the sensorimotor interface.

### Main observations

Let's first consider counter-expectational yes-no questions (see also Vicente, 2010):

(1) *Ma non mangiavi solo frutta?*

But not eat-imp-2s only fruit? 'But weren't you eating only fruit?'

This sentence is appropriate in the following scenario: I know that you are on a diet and decided to eat only fruit. One day I see you eating a big hamburger. I am surprised and utter (1).

Here we capitalize on Giorgi's (2016, 2017) syntactic analysis, extending her proposal to the prosodic and gestural components as well. Notice that sentences such as (1), discussed in Giorgi (2016, 2017), would be infelicitous, and even ungrammatical, if not accompanied by the correct intonation. Furthermore, normally, sentences can be introduced by an adversative particle in contexts such the following ones:

(2) *Maria è ricca, ma non è felice*

Maria is rich, but she is not happy

If *Maria è ricca* (Maria is rich) is not realized, the clause *ma non è felice* (but she is not happy) cannot stay by itself and the sentence is out. Hence, the grammaticality of (1) is unexpected. Moreover, the imperfect is an anaphoric verbal form, as amply discussed in the literature on the topic, so that if a temporal reference is not provided in the previous context (either in the same sentence or in the discourse), the sentence is ungrammatical:

(3) *\*(Ieri alle tre) Mario mangiava un panino*

(Yesterday at three) Mario eat-impf a sandwich

'(Yesterday at three) Mario was eating a sandwich'

This is not the case in (1). The sentence in (1) is grammatical only because it is associated to the following typical intonation, with the highest pitch in correspondence with the main accent of *mangiavi* (eat-impf-2s), as shown in Fig.1 provided by Praat:

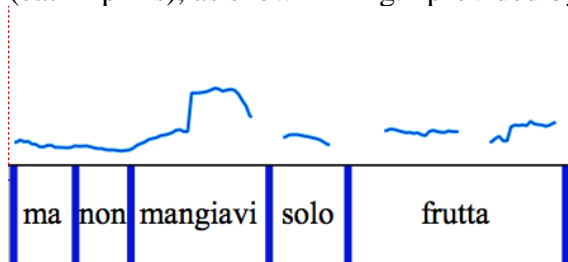


Fig.1

We also observe that these sentences are obligatorily accompanied by different gestures. Here we consider the gesture Palm Up Open Hand (PUOH, Kendon 2004), which can be seen in Fig. 2. In fact, this is the most characteristic, in that its movement culminates in correspondence with the highest pitch. We conducted an experiment (reference omitted) on 15 speakers, who were introduced to specific contexts and asked to produce several counter-expectational questions previously presented in a written form. The experiment consisted of four different situations, among which one simulating a phone conversation, and we observed that in this case subjects moved the non-occupied hand exactly in the same way (as can be seen in Fig. 3).

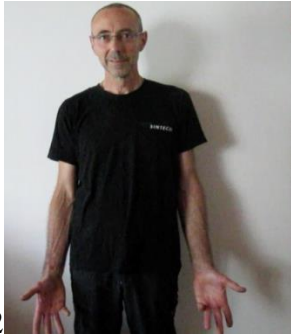


Fig.2



Fig.3

We have detected that the gesture culmination corresponds with the pitch realization, even in the absence of a physical addressee. This correspondence shows that these two components go together and are realized at the same point at the sensorimotor interface.

### The theoretical account

We adopt Giorgi's (2017) syntactic representation, where *ma* is analyzed as a discourse head:

- (4) [DISCOURSE ... [DIS ma [ non mangiavi solo frutta? ] ]  
           but weren't you eating only fruit?

We argue that the discourse head provides the relevant instructions, which are *read off* at the interface as pitch and gesture. Further support comes from the analysis of the two other kinds of surprise questions illustrated below.

### Extending the analysis

We extend this analysis, integrating syntax, prosody and gesture, to other two kinds of surprise questions/exclamations. Consider the following scenario: I enter a room and find Maria kneeling in front of her wardrobe. I'm surprised, because of her position, and say:

- (5) Ma cosa stai facendo?

But what are you doing?

This sentence is syntactically different from (1), in that a) it is an open question, b) there is a non-imperfect (progressive) indicative, c) there is no negation. Nevertheless, it is introduced by *ma* and does not simply convey a request of information, but also the speaker's surprise. Gesture and prosody also differ from (1), but again they *go together* and characteristically differ from the *normal* cases.

Consider finally the following scenario: I enter a room and find Maria kneeling in front of her wardrobe, the floor is dirty and I think that she will ruin her trousers and want her to stop kneeling. I might utter:

- (6) Ma cosa fai?!

But what are you doing!

The intonation of this sentence is closer to an exclamative than to a question (see Delfitto & Fiorin 2014, Portner & Zanuttini 2003), in that it is (almost) an order to stop doing what she is doing and not a request of information. The sentence in (6) is similar to surprise-disapproval questions in Obenauer (2006). Again, this sentence is also associated to a typical gesture pattern.

We will conclude with a proposal for the role of gesture from the interpretive point of view (see also Schlenker, to appear).

### References (partial)

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