

The question particle *o* in some Tuscan dialects: Fiorentino, Pisano, and Crespinese

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This study deals with the question particle *o* in some Tuscan dialects. We will distinguish the question particle *o* from homophone elements. It will be shown that the question particle *o* should be treated as a distinct element from the vocative or interjection *o(h)* and the disjunction *o*. We will also look at its distribution in different sentence types. It will be shown that the particle *o* cannot appear in declaratives and is restricted to certain sentence types, namely main clause interrogatives, imperatives and exclamatives (see also Garzonio 2004). Moreover, we will investigate the semantic and/or pragmatic contribution the particle adds to the question interpretation. What we would like to suggest is that the special question character arises from the epistemic implicature encoded by the particle *o* (see Han & Romero 2004). We will argue that *o* as a particle is a speech act marker which will be represented in a speech act phrase in line with Speas & Tenny (2003) (cf. also Benincà 2001, Coniglio & Zegrean 2010, Miyagawa 2012).

KEYWORDS: question particle, Tuscan dialects, epistemic implicature, speech act marker

1. Introduction

This study deals with the question particle *o* in the Tuscan dialects Fiorentino, Pisano, and Crespinese.¹ We review the state of the art, particularly Garzonio's (2004) work, and add some new observations concerning its distribution and use. Our first goal is to distinguish the question particle *o* from homophone elements² and additionally to look at its distribution in sentence types other than questions, such as imperatives, declaratives and exclamatives. We will also consider its use in different question types, including *wh*-in situ questions, and infinitive questions, among others.

Secondly, we will explore a formal analysis of the syntactic and semantic relation between the particle *o* and the sentence in which it appears. More precisely, we will look at the semantic and/or pragmatic contribution the particle adds to the utterance in which it appears.

The outline of the article is as follows. In Section 2 we review the data and analyses discussed in the literature. We then present our data

in Sections 3 and 4. Section 3 details a distinction between the question particle *o* and homophone elements (especially interjection *o* and disjunction *o*), while Section 4 examines the distribution of the particle *o* in different sentence types and its distribution in various positions. Section 5 offers a semantic and syntactic analysis of utterances with regard to the questioning aspect of particle *o*, and finally Section 6 summarizes the most important findings and identifies future avenues of research.

2. State of the art

In this section, we will briefly summarize previous work on the particle *o*.

The particle *o* has been discussed previously by Ebeling (1905: 151-153) and Rohlfs (1954: 44–45, 376). They observe its frequent occurrence in the left-adjacent position to the complementizer *che* ‘that’ in questions and analyze it therefore as a question particle.

- (1) a. *O* *che* *lo* *conosci?*
 o that him know
 ‘Do you know him (then)?’ (cf. Ebeling 1905: 151)
- b. *o* *che* *cosa* *fate* *quassù* *solì* *solì?*
 o that thing make up-here alone alone
 ‘What are you doing up here all by yourself?’ (cf. Rohlfs 1954: 44)

Ebeling assumes that the particle *o* has been derived diachronically from the interjection *oh!* which Rohlfs takes as being a possible but not the most probable assumption. Rohlfs (1954: 45) presumes that the particle appearing left adjacent to yes/no questions is derived from Latin *aut* ‘or’:

- (2) *O* *non* *hai* *fame?*³
 or not have hunger
 ‘Or aren’t you hungry?’ (Rohlfs 1954: 44)

The hypothesis that *o* comes from the disjunction *aut* and not from the interjection *oh* is a plausible assumption, given that in other Romance varieties some question particles that are used in yes/no questions are considered to be derived from the Latin form *aut*⁴ (cf. Mensching & Remberger 2010 for Sardinian question particle *a*, as also Rohlfs 1954: 44 observed), however, the diachronic development of the particle *o* is still unresolved.

In the following discussion, we will present synchronic descriptions of this particle. Garzonio’s (2004) paper on the question particle

o in Fiorentino is the most elaborate because it includes a detailed description of the particle with respect to syntax and semantics and/or pragmatics. Based on the data from five native speakers, he observes that the Fiorentino particle *o* can optionally be used in different sentence types (the optionality of the particle is represented in brackets): in *wh*-questions (3a), in yes/no questions introduced by the element *che*, which is usually described as a complementizer comparable to the one used in embedded sentences and comparable to the English ‘that’ (3b) (see Lusini 2009: 10ff., Lusini 2013: 85ff., Cruschina 2012: 178ff. among others for a detailed analysis of yes/no questions with *che* in Italian dialects); finally, *o* can be used in imperatives (3c):

- (3) a. (O) *icché* *succede* *costì?*
 O what happens there
 ‘What on earth does it[sic!] happen there?’ (Garzonio 2004: 1)
- b. (O) *che* *tu* *l’hai* *visto* *Mario?*
 O that you him-have seen M
 ‘Have you seen Mario?’
- c. (O) *smettila* *infine!*
 O stop-it at last
 ‘Stop it at last!’

According to Garzonio’s data, questions with the particle *o* are not embeddable under any verb, not even under verbs of saying, which can embed root clauses according to Krifka (2014):⁵

- (4) a. **Dimmi* *o* *quando* *tu* *vieni.*
 tell-me o when you come
 ‘Tell me when you will come.’ (Garzonio 2004: 10)
- b. **Dimmi* *o* *se* *tu* *vieni.*
 tell-me o if you come
 ‘Tell me whether you will come.’

Garzonio assumes that all questions with the particle *o* are interpreted as ‘non-canonical’, in that questions are not asked to obtain new information but rather express a certain attitude of the speaker regarding the propositional content. He provides a list of various types of non-canonical questions used with the particle *o* (cf. Garzonio 2004: 2; cf. Obenauer 2003 for the definition of non-canonical questions):

- (5) a. SURPRISE INTERROGATIVES, which express an attitude of astonishment toward the propositional content, e.g. *O icché tu stai facendo?* ‘What on earth are you doing?’ (see also Poletto 2000: 69, 71 who assumes that surprise is expressed or coded by the additional morpheme *o*, which is perceived by speakers to be similar to a vocative particle or an interjection *oh!*).
- b. ‘CAN’T FIND THE VALUE’ INTERROGATIVES, which express that the speaker cannot find any plausible or acceptable answer to his question, though he has tried to find one (cf. also Obenauer 1994), e.g. *O indove ho messo le chiavi?* ‘Where the hell did I put my keys?’.
- c. RHETORICAL QUESTIONS, e.g. *O che le devo fare io codeste cose?* ‘Do I have to do these things?’ that do not ask for new information.
- d. EXCLAMATIVE INTERROGATIVES, which are interpreted similarly to exclamatives which express some attitude towards a proposition being presupposed by the *wh*-sentence (cf. Portner & Zanuttini 2003) with an intonation of a question, e.g. *O che vestito tu ti sei comprato?* ‘What a garment you bought!’.
- e. IMPERATIVE INTERROGATIVES, which are built on yes/no questions and serve to express a command, e.g. *O che tu vai via?* ‘Go away!’.

Garzonio (2004: 9) describes *o* as a kind of “modal” particle that adds a special value – a “special semantic property” (Garzonio 2004: 17) – to the question and thus makes it ‘special’ in the sense of Obenauer (2003, see above). Raddi (2003) also notes that the particle *o* can express different speaker’s attitudes such as sarcasm, impatience, perplexity in Fiorentino dialect:

- (6) Attitude: SARCASTIC
 a. *Chiudi quella finestra, o cche cci ha’ calori?*
 ‘Shut the window, are you hot?’ (Raddi 2003: 32)
- b. *O sentiamo icché cì da ddire i’nostro maestro Cilegia.*
 ‘Let’s hear what our master Cilegia has to tell us.’
- (7) Attitude: IMPATIENCE
O guardiamo se son buone mosse.
 ‘Let’s see if it’s getting done.’ (Raddi 2003: 189)
- (8) Attitude: PERPLEXITY
Aoe! O cche la mangi tutta te, codesta bigutta di minestra?
 ‘Hey! Are you going to eat all of that soup alone?’ (Fi) [SAMMORO]
- (9) Attitude: SURPRISE
 a. *Che cardo (caldo) che è! O quanto dura? ’Un ci sorto mia io!*
 ‘How hot it is! How long does it take? I won’t go out!’ (Cr)
- b. *Bevanda imbevibile. O cos’è cotesto torbone? E te lo bevi!*
 ‘This drink is awful. What is this undrinkable thing? And you are drinking it!’ (Cr)

Because questions do not usually assert propositions in the standard question semantics (see Hamblin 1973, among others), it remains unclear how the particle contributes to the special meaning of a question and what it means that a question expresses attitudes such as surprise, impatience, etc. towards a proposition. We will explore this further in Section 4.2.

The syntactic analysis provided in the literature is mostly based on the cartographic approach of the left periphery (following Rizzi 1997 and subsequent works, such as Benincà 2001; see (12)). According to Poletto (2000: 69), the observation that *o* precedes *wh*-words indicates that questions with *o* have a more complex syntactic structure. Garzonio (2004) assumes that the particle *o* is usually located between Hanging Topics (**HT**), which stand in a position associated with the discourse (SpecDiscourseP) and left-dislocated arguments (**LD**) in (Spec,TopicP) (see (10) where *Gianni* is interpreted as HT and (11) where *Gianni* is interpreted as LD):

- (10) *Gianni, o quando tu ci parli?*
 ‘Gianni, when (the hell) are you going to talk to him?’ (Garzonio 2004: 13)
- (11) *O Gianni quando parte?*
 ‘Gianni, when will he depart?’ (ibid.)

The structural analysis in (12) represents the location of the particle in the left periphery (cf. Garzonio 2004: 17).⁶

- (12) a. DiscourseP – ForceP – TopicP – FocusP – FinitenessP
 b. HT *o* LD
 (Garzonio 2004: 17; cf. Benincà 2001, our line b)

The following questions illustrate further examples of the particle *o* occurring with LDs from Pisano and Crespinese:

- (13) *O tutte 'ste cicce, di 'i sono?*
o all these children of who are
 ‘Who are the parents of all these children?’ (Cr)
- (14) *O 'r sindaco 'r che fa?*
o the mayor the what does
 ‘What does the mayor do?’ (Pi) [*Mal219*]

Lusini (2009) uses the same structure as in (12) for her analysis of the particle in Sienese (see (17)), adding a new functional projection (Reduplicated Force phrase) that takes into account the possibility of doubling the particle *o* (see also Garzonio 2004: 16 for Fiorentino in (16)):

- (15) *(O) a Gianni, (o) che gli hanno*
(o) to John (o) che to-him-Cl have-3.Pl
regalato un cane?
given a-Mas.Sg dog
 ‘Did they give John a dog?’ (Lusini 2009: 114)
- (16) *O Gianni, o quando tu ci parli?*
 ‘Gianni, when (the hell) are you going to talk to him?’ (Garzonio 2004: 16)⁷

She thus assumes the following structure (cf. Lusini 2009: 118):

- (17) [Red.ForceP *o* [DiscourseP HT [ForceP *o* [TopicP LD [FocusP [FinitenessP]]]]]]

The state of the art shows that the diachronic development of the particle *o* is still a matter of debate (coordination *o* from Latin *aut*, interjection *o(h)*). Concerning its synchronic description, however, there is a consensus that *o* is a question particle. However, it remains unclear how the question particle *o* can be distinguished from other elements which happen to be homophones in Tuscan dialects such as interjections and coordination markers. Moreover, previous studies have mainly concentrated on the analysis of the particle *o* with respect to questions and less with respect to other (minor) sentence types, exclamatives and imperatives for instance.⁸ A semantic and/or pragmatic analysis is still missing in the literature. Thus, it remains an open question how the non-canonical meaning is derived from the semantic and/or pragmatic contribution of the particle *o*. In what follows, we will try to fill these gaps and we will present some data from two Tuscan dialects, Pisano and Crespinese, in addition to the Fiorentino dialect. The structure of the following sections is as follows: Section 3 provides new data on the distinction between the particle *o* and other functions in order to determine the function of *o* in questions. Section 4 shows the distribution of the particle in other (minor) sentence types and Section 5 proposes a formal semantic and syntactic analysis of questions with the particle *o*.

3. The question particle *o* vs. its homophone elements

In this section, we will distinguish the question particle *o* from the vocative or interjection *o(h)* and the disjunction *o*, and argue that the question particle should be treated as a distinct element.

We demonstrate that the question particle *o* normally forms a phonological unit with the right-adjacent element (usually a *wh*-word like *icché* ‘what’ or the complementizer *che* ‘that’), because there is no phonological break (lack of a comma intonation) between the two elements. Moreover, the question particle induces consonant lengthening with the complementizer *che* (e.g. *o cche...?* [ok:e]). The interjection *oh* does not show the same phonological properties as the question particle *o*, because it has a comma intonation and is phonologically separated from the utterance, as we will see in Section 3.1.

The question particle *o* differs from the vocative *o* because the former is not restricted to hearer-referring proper names and nouns (cf. Section 3.2).

As we will show in Section 3.3, it also differs from the disjunction *o* in meaning and it can co-occur with the protonic form *oppure* ‘or’ (Section 3.3).

Before presenting our data, we would like to introduce our methodology and the corpus we have used. The data for the Fiorentino dialect come from oral speech corpora *STAMM* and *CORAL* as well as from the blog *SAMMORO* and literature (prose) written in dialect.⁹ We have also used speaker acceptability judgments.¹⁰ The data for Pisano also stem from blogs and prose texts in dialect,¹¹ while the data for Crespinese are from the webpage <http://www.ilcrespinese.it/>.

3.1. Question particle *o* vs interjection *oh*

One characteristic of the question particle *o* is that it builds a phonological word with the right-adjacent *wh*-word, which can induce different phonological processes, such as a vowel deletion in (18) (*o* + *indo* (Fior.) > *o'ndo* (Fior.)):

- (18) a. *O 'n du' se' stato?*
o in where are been
‘Where have you been?’ (Cr)¹²
b. *O 'ndo vu siete?*
o where you are
‘Where are you?’ (Fi)

It induces consonant lengthening (ital. ‘radoppiamento sintattico’) with the complementizer *che* ‘that’, which is orthographically represented by double consonants (see also e.g. (21) and (22)):

- (19) *O cche?*

Note that the orthographical representation of ‘radoppiamento sintattico’ is very common in Italian (*semmai*, *oppure*, *ovvia*, etc.) and also in Tuscan dialects (cf. examples from the *VIVALDI* corpus *il sale* ‘the salt’ [i 's:ale], *il miele* ‘the honey’ [i 'm:jele]).¹³

Another argument for the phonological unit between the question particle *o* and the *wh*-element is exhibited in the orthographical representation of some Fiorentino speakers, clearly demonstrating that the particle *o* and the right-adjacent word make up a phonological word because in a lot of cases they are orthographically represented together:

- (20) *Ma oicchè tu dici?*
 but o-what you say
 'But what are you saying?' (Fi)
- (21) *Occhè gl'è vero?*
 o-that it[expl.] is true
 'Is it true?' (Fi)
- (22) *Occome un c'è i'rosario? C'aveo bell'è fatto la bocca.*
 o-how not there is the rosary there had nice is
 made the mouth
 'The rosary will not be celebrated [in church]? I really would have liked it!' (Fi) [SAMMORO]

This orthographical representation is not meant to represent a lexical unit composed by the particle *o* plus the *wh*-element or the complementizer *che*, as some elements (e.g. adverbs) may be placed in between:

- (23) *O domani¹⁴ che arrieranno in fuga*
 o tomorrow that will-arrive in breakaway
o faranno la volaha?
 or they-will-do the sprint
 'Will they arrive in a breakaway group or is there going to be a final sprint tomorrow?!' (Fi) [SAMMORO]

Interjections like *o(h)* express the speakers' emotions or attitudes (like *wow!* for astonishment). In contrast to the particle *o*, the homophone interjection is phonologically separated from the rest of the sentence and thus does not form a unit with the respective right-adjacent element (see the *Praat* figures in Appendix). It is replaceable by other lexical elements, i.e. by other interjections like *bah*, *eh*, *ah*, etc.¹⁵

The interjection *o(h)* can co-occur with every sentence type and speech act (e.g. in declarative sentences and assertions, see (24)). However, this is not possible with the question particle *o*, because its distribution is restricted to particular sentence types (mainly questions and some other sentence types), as will be shown in Section 4.

- (24) *Óh, io me ne vado, a me mi c'è venuto a noia.*
 oh I me from go to me me there is come the boredom
 'Hey, I'm going, I'm getting bored.' (Cr)

The most important argument for the distinction between an interjection (e.g. *bah* or *ohi*) and the particle *o* is that the interjection and the particle can co-occur:

- (25) *Bah, occhè sei bell'è in batteria un attar orta?*
bah o-that are nice is in drums a other time
 'Bah, are you ready to go again (another time)?' (Fi) [SAMMORO]

- (26) *Ohi ohi occome l'è moderna bah!*
 hey hey o-how she is modern bah
 'Wow, she is so modern, bah!' (Fi) [SAMMORO]

The distinction made in this section suggests that interjections are independent of the utterance and should be thus analyzed externally to the clause or utterance with which they co-occur. The question particle *o* behaves differently in this respect and should be analyzed clause internally (as proposed by Poletto 2000, Garzonio 2004, Lusini 2009, see Section 2).

3.2. Question particle *o* vs vocative *o(h)*

In this section we will argue that there is a difference between the question particle *o* and the vocative *o(h)*.

The vocative *o* can be orthographically realized as *oh* and requires a proper name or (pro)noun that refers to the hearer (cf. Moro 2003: 52f., among others).

- (27) *oh Lidia / icchè è successo?*
 'Oh Lidia/ what happened?' (Fi) [STAMM 209]
- (28) *Oh nini/ guarda!....*
 'Oh darling/ look...' (Fi) [CORAL ipubdl03]

A vocative *o* can appear with any sentence type (like imperative, exclamative and declarative) in contrast to the (question) particle, that usually appears in questions and cannot appear in declaratives (see Section 4):

- (29) *O Gesilao, ven via!* (imperative)
 'O Gesilao, go away!' (Fi)
- (30) *O Maria, che bella che se'!* (exclamative)
 'O Maria, how beautiful you are!' (Fi)
- (31) *O Gianni te deo di' quarche cosa.* (declarative)
 'O Gianni, I've got to tell you something.' (Fi)

Note that the vocative *o* can also be at the end of the imperative before the hearer-referring nouns whereas the question particle appears in the left periphery of the question:

- (32) *Ma va' a tosatti! O 'apellone! (Cr)*
 but go to do-the-hair-your o hippie
 'Go and brush your hair, you hippie!'

The most important distinction between the vocative and the question particle is that both can co-occur, which suggests that they have a distinctive use:

- (33) *Oh, Vale, oicchè ttu dici!* (Fi)
 oh Vale o-what you say
 ‘Oh Vale, what are you saying?’

After having distinguished the question particle *o* from the vocative *o*, we can conclude that the repetition of the element *o* in cases like (34) to (35) (the only one we have found in our corpora) is not a repetition of the question particle. The first *o* in such cases is clearly to be judged as a vocative (due to the hearer referring (pro)nouns), whereas the second represents the particle *o*:

- (34) a. *O Gigi o icchè tu fai?*
 o Gigi o what you do
 ‘Oh Gigi what are you doing?’ (Fi)
 b. *O te o icchè tu fai?*
 o you o what you do
 ‘Oh you, what are you doing?’ (Fi)
- (35) *O Santiago, o che setona avevi! O quanto ha’ bevuto!*
 o Santiago o what thirst had o how-much have drunk
 ‘O Santiago, how thirsty you must have been! How much you drank!’ (Cr)

As shown in the preceding paragraphs, the particle *o* differs from the vocative *o*. The latter is mainly restricted to NPs/DPs that refer to the addressee and can co-occur with any sentence type. This restriction does not hold in the case of the particle *o*.

3.3. Question particle *o* vs disjunction *o*

In this section we will show that the question particle *o* and the disjunction *o* are two distinct categories, even though they are synchronically homophone and the particle has been arguably derived diachronically from the disjunction (see Rohlfs 1954 for this proposal). One major difference between the disjunction *o* and the particle *o* is that the former semantically disjoins two propositions and syntactically combines two constituents (e.g. *ti piacciono i cani o preferisci i gatti?* ‘Do you like dogs or do you prefer cats?’). This is not the case with the question particle *o*, because it always appears sentence initial or in the left periphery of the sentence and does not disjoin two constituents (at least not overtly) (e.g. *O icché fai?* ‘What are you doing?’). However, both produce consonant lengthening (e.g. *oppure* ‘or’, *ovvero* lit. ‘or also’, ‘or true’). Since we assume that the disjunction *o* and the particle *o* are two distinct categories, we could expect a co-occurrence of both categories, i.e. we expect to find two disjoint sentences with a question particle. However, our speaker judgments do not readily accept the co-occurrence:

- (36) a. *Lui ha avuto paura. O (^o) perché scappò di casa?*
 'He was afraid. Or why did he leave the house?' (Fi)
 b. *'Un hai fatto nulla. O (^o) icchè hai fatto?*
 'You didn't do anything. Or what did you do?' (Fi)

There might be a phonological reason why the sequence *o ... o* was not accepted by our speakers (arguably due to hiatus avoidance), as *oppure*, a synonym for the disjunction *o*, is judged better than the single vowel *o* (Savoia, p.c.):

- (37) *'Un hai fatto nulla. Oppure o icchè hai fatto?*
 'You didn't do anything. Or what did you do?' (Fi)

The function of the disjunction is to coordinate two propositions in (37), namely the negative proposition 'you didn't do anything' and the existential proposition presupposed by the *wh*-question, i.e. 'you did something' (see Hamblin 1973). We expect the order *oppure* + the question particle *o* and not vice versa because *oppure* has scope over the question and thus over the question particle *o*. This is indeed the case as the sequence **o oppure icché* is judged as unacceptable by the speakers and there is no evidence in the corpus.

To support the findings on *oppure*, we also investigated the position of the particle *o* with respect to the contrastive adverb *ma* 'but'. The result of this investigation led us to conclude that the particle *o* must follow *ma* (as it must follow the coordination marker *oppure* in (37)):

- (38) *Ma o icché vu fate?*
 but o what you do
 'But what do you do?' (Fi)
 (39) *?? O ma icché vu fate?*
 o but what you do
 'But what do you do?' (Fi)

The observation that the particle must follow the contrastive adverb is probably related to the observation that the particle *o*, in contrast to the adverb *ma*, builds a phonological unit with the complementizer *che* or the *wh*-word:

- (40) *Ma occhell'ha troe le mì ciantelle?*
 but o-that-she has found the my slippers
 'Has she been able to find my slippers?' (Fi) [SAMMORO]

Moreover, the grammatical order *ma o* and the ungrammatical order *o ma* follows from Garzonio's (2004) and Lusini's (2009) syntactic analysis according to which *o* is represented in a lower projection than DiscourseP, which expresses syntactic elements that relate to the discourse (see Section 2). The contrastive adverb *ma* is such an element:

- (41) *Mi ha chiamato. Ma io non ho risposto.*
'He called me. But I didn't reply.'
- (42) [DiscourseP **ma** [ForceP **o** [TopicP [FocusP [FinitenessP]]]]]

3.4. Summary and first tentative suggestion for the analysis

The particle *o* can be distinguished from other homophone elements phonologically, semantically, and syntactically: as a question particle it should be analyzed sentence internally in contrast to the interjection *o(h)* that should be analyzed clause externally. The particle *o* must not precede NPs that refer to the addressee, as vocative *o(h)* does. Further, the particle does not coordinate two constituents as the disjunction *o*, and it follows the disjunction *oppure* as well as contrastive adverbs (as was shown with *ma*).

We thus have presented new data for the assumption that *o* must be represented lower than DiscourseP in a split CP (complementizer phrase) analysis (see Garzonio 2004: 17, among others).

4. Syntactic and semantic/pragmatic characterization of the particle *o*

This section examines syntactic and semantic properties of the particle *o* with respect to the question as to whether *o* occurs in a particular sentence type or speech act (4.1), and to its semantic/pragmatic contribution to the utterance (4.2). Section 4.3 gives a brief summary.

4.1. Sentence types and speech acts

In this section we will look at the distribution of *o* in different sentence types, i.e. sentences that are formally marked as specific types of illocutions or speech acts and that are morpho-syntactically distinguished from other sentence types. For example, interrogatives have a particular form that distinguishes them from imperatives, declaratives, and exclamatives etc. (see Sadock & Zwicky 1985 on sentence types, among others). A speech act, however, is a pragmatic notion that refers to utterances which implement a particular

communicational act in a conversation, such as asking a question, asserting a proposition, giving a suggestion or an order; see Krifka (2014) on speech acts. One important difference between sentence types and speech acts is that the former are embeddable under verbs that select sentences as their arguments, whereas the latter constitute root phenomena (see Sadock & Zwicky 1985; Reis 1997; Han 1998: 150; Speas & Tenny 2003: 338; Haegeman & Hill 2010; Coniglio 2011; Munaro & Poletto 2003, 2009; Castroviejo 2006; Potts 2003; but see Krifka 2014 for some speech act-embedding predicates like *say*). We take this difference as a test to determine the embeddability of the particle *o*.

4.1.1. The non-embeddability of *o*

As has been already noted by Garzonio (2004; cf. Section 2), the particle *o* is not embeddable. We will confirm his observation with new data.

The following example shows that the particle *o* modifies the matrix clause by its contribution of a surprise attitude towards the biased question in (43), which expresses a speaker's negative attitude towards the proposition (which will be defined as an epistemic implicature in Section 4.2). The question implicates that s/he should not believe that the speaker does not know about her/his past. In the present case, it is important to note that the negative attitude does not have scope over the embedded clause (i.e. it does not scope over the proposition that the speaker does not know about her/his past).

- (43) *O che crede che un lo sappia?... Che crede che un lo conosca i' su passato?...*
'Does he really believe I didn't know it? ... That I didn't know anything about his past?' (Fi)

The cases below confirm that the particle *o* has to occur in the matrix clause but not inside the embedded clause. Question-embedding predicates such as *not to know* are incompatible with the particle *o* (44); Therefore, the same should hold for *ecco* which selects a *wh*-sentence in (45):

- (44) *Un lo so (*o) quando parte.*
'I don't know (*o) when he leaves.' (Fi)
- (45) *Ecco (*o) perché le ragazze le un trovano marito.*
'That's (*o) why the young women don't find a husband.' (Fi)

However, we found some examples with verbs of saying that seem to embed the particle *o* (e.g. *dire*) (see Krifka 2014 for embeddability of speech acts under verbs of saying).¹⁶ The following example

shows even a double occurrence of *o*: one under the verb of saying which has an imperative form, and one before the imperative:

- (46) *O dimmi, o quante ci corre tra lei*
 o tell-me o how-many there run between she
e i' su sposo?
 and the her husband
 'Tell me, how many years are there between her and her husband?' (Fi) [SAMMORO]

Other examples show an embedded question under the verb of saying and under reported speech verbs such as (*begin*) *to say*:¹⁷

- (47) a. *La professoressa / gli dice / o te /*
 the teacher her says o you
icché tu fa' chi?
 What you do here
 'The teacher asked her what she was doing here.' (Fi) [STAMM 553]
- b. *Eddie / / cominciò a fare: "O che famiglia l'ha?"*
 for-God's-sake began to do o what family he has
 'For God's sake, she began to say "What kind of family has he?"' (Fi) [CORAL ifamcv22]

It seems that these verbs of saying are syntactically independent from the main sentence (here question) because they can intervene between the embedded verb (here *si inventa*) and the adjunct (here: *con questo tempo*) and thus are more likely to have the status of a parenthetical verb (cf. Hansen 2008 for such an analysis of speech-embedding verbs):

- (48) *Ma con questo tempo, o dimmi te icchè si inventa?*
 but with this weather o tell-me you what it invents
 'But tell me, what shall one do at this weather?' (Fi) [noiteatro]

Although the particle *o* cannot be embedded under question predicates that take *se* 'if' sentences as their arguments, it can appear in matrix *se* sentences, which express an emphatic assertion:

- (49) a. *O se un gl'ho detto nulla!*
 o if not him have said nothing
 'I didn't tell him anything indeed!' (Fi)
- b. *O se tu me l'ha' raccomandato anche te!*
 o if you me it have recommended also you
 'But you recommended it to me' (Fi)

Thus far, the data seem to indicate that the particle *o* is an indicator of an illocutionary act or a speech act, because it is only embeddable under speech act-embedding verbs such as *say*. However, the

particle *o* is not specified for one particular speech act type, because it can appear in different speech acts (questions, imperatives, exclamatives as shown below). The function of the particle *o* appears to be the marking of a sentence as a speech act, and not to restrict its use to a particular one. Its function is thus comparable to that of a punctuation mark like *<!>*, which is used with different sentence types (such as imperatives, vocatives, exclamatives).

4.1.2. *The restriction to certain sentence types and speech acts*

In this subsection we will show that the particle appears in certain sentence types, namely imperatives, interrogatives and exclamatives, but not in declaratives. We will thus conclude that the particle *o* has sentence type specification in its lexical entry.

As has been already shown by Garzonio (2004), the particle does not only appear in interrogatives, but also in various types of imperatives (as marked by the imperative in (50) and the negative imperative – based on the infinitive – in (51), or introduced by the complementizer *che* together with the imperative form in (52)):

- (50) a. *O senti il Bramanti (...)*
'Listen to Bramanti' (Fi) [CORAL ifamcv28]¹⁸
b. *O spiegati 'n poino 'iaramente.*
'Explain yourself a little clearer!' (Pi) [Mal219]
- (51) *O unn'essere tanto fihoso!*
'Don't be so choosy!' (Fi) [SAMMORO]
- (52) *O che la smetti di mangiatti i' lápisse e tu cominci a studiare!*
'Stop chewing on your pencil and start studying!' (Fi) [theflor]

The particle *o* can also appear in *wh*-exclamatives that cannot be used as interrogatives (see Portner & Zanuttini 2003 for a detailed view on this sentence type):

- (53) *O come tu sè bella nini!*
o how you are beautiful darling
'How beautiful you are, darling!' (Fi) [alfem]
- (54) *O che buoi hai!*
o what luck have.2SG
'What a luck you have!' (Cr)

The particle *o* cannot appear in declarative sentences although it does appear in *se*-sentences that function as assertions as shown in (55):

- (55) * *O 'un lo so icchè fare.*
o not it know what do
(intended: 'I don't know what to do.') (Fi)

As the question particle is optional in questions (see Garzonio 2004),¹⁹ we assume that *o* cannot be a grammaticalized question particle merely marking a sentence type, as is the case with many question particles in other languages that are obligatory or at least very frequent in corpora (see, e.g. *est-ce que* questions in French or the *li* question particle in Russian; cf. Rooryck 1994: 216ff. for French, and King 1993: 134ff. for Slavic, among others).

At the end of this section we would like to discuss some problematic data for the assumption that the particle *o* must contain some specification for sentence types (e.g. interrogatives) in its lexical entry. *O* can appear in elliptical yes/no questions as well, as the following examples show:

- (56) A: *Intanto m'avvio!*
'I'm heading out then!'
B: *O quell'artri?*
'What about the others?'
A: *E s'ènno avviati!*
'They're already gone!' (Cr)
- (57) *O queste macchie?*
'And these stains? / What about these stains?' (Pi) [FucL14]

Elliptical questions, however, are not marked as interrogatives because they lack any morphosyntactic feature, for example a subject-verb inversion considered as a marker for question sentence type. In order to overcome this problem, we must assume that intonation is some kind of formal feature that marks an utterance as interrogative and not as a declarative. That is why the particle is also licensed in elliptical questions.

In this section we have shown that the particle *o* cannot appear in declaratives and is restricted to certain sentence types, namely interrogatives, imperatives and exclamatives.

4.2. Semantic and/or pragmatic characterization of *o* in questions

Our data confirm Garzonio's (2004) observation that the particle *o* adds some special meaning to the question and that it usually expresses the speaker's attitude as in (58). In (58a) the particle encodes some incredulity that it is Lia that the speaker sees on the photo. In (58b) the particle expresses that the speaker didn't see the addressee for a surprisingly long time and in (58c) the speaker doesn't believe the proposition that she does not come from here and hence is asking why the proposition should be the case:

- (58) a. CONTEXT: Ela and Lia are looking at photos.
Ela: *O chi l'è questa?*
'Who's that?'
Lia: *'Un c'indovini?*
'Don't you see?'
Ela: *No, ma tu se' te?*
'No, but is it you?'
Lia: *No.*
'No.' (Fi) [CORAL ifamcv01]
- b. *O quant'è che 'un ti si vedea?*
'How long haven't we seen each other?' (Cr)
- c. *Ma icché c'entra? O perché la 'un vien da qui?*
'But what has that got to do with it? Why doesn't she come from here?' (Fi)
[CORAL ifamcv22]

What we would like to suggest is that the special question character arises from the epistemic implicature encoded by the particle *o* (see Han & Romero 2004). The authors discuss polar questions with preposed negation in English that allow Positive Polarity Items like *too* or *already* in (59). According to them, such a question carries the following positive epistemic implicature: the speaker believes that the positive proposition *p* is the case in (59), the implicature is that Jane is coming:

- (59) *Isn't Jane coming too?*

Yes/no-questions with Positive Polarity Items like in (59) have a biased interpretation towards a positive proposition, i.e. that Jane is coming too. The speaker asks the addressee for any possible (weak or strong) doubts about *p* (= Jane is coming). In yes/no-questions like (59), the speaker asks the addressee for conclusive evidence for $\neg p$; hence, $\neg p$ is the addressee's proposition and *p* is the speaker's original belief. We suggest that the particle *o* has a similar function as the preposing of negation in an English yes/no question, because it adds the epistemic implicature that the speaker believes that the negation of the proposition (i.e. you are hot in (60)) is or should be the case. The speaker thus thinks that the addressee should not be hot. Therefore, there is no reason to leave the window open. That is why the speaker asks the addressee to shut the window:

- (60) *Chiudi quella finestra, o cche cci ha' calori?*
'Shut the window, are you hot?' (Raddi 2003: 32)

However, it remains an open question as to what the epistemic implicature refers to in *wh*-questions. We would like to assume that the epistemic implicature negates the existential presupposition of the *wh*-question, i.e. that there is some *x* for which the predicate *P*

is true (see Hamblin 1973 for existential presupposition of *wh*-questions), and suggests that the existential presupposition should not be part of the addressee's common ground. The following *o* in a *wh*-question adds the implicature that it should not take any longer, because it is very hot and because otherwise the speaker cannot go out:

- (61) *Che caldo (caldo) che è! O quanto dura? 'Un ci sorto mia io!*
 'How hot it is! How long does it take? I won't go out!' (Cr)

4.3. Summary

Our corpus analysis and speaker judgments provide new data concerning the use of the particle *o* in Fiorentino, Pisano, and Crespinese, leading us to conclude that it can be used in all dialects (unless otherwise indicated) in the following ways:

- a) in main sentences introduced by *se* 'if' that have an emphatic assertion 'I emphatically assert that...'
- b) in *wh*-exclamatives
- c) in imperatives
- d) in elliptical questions
- e) with different attitudes (e.g. surprise, impatience, etc.).

We summarize the data in Table 1.²⁰

Table 1.

		FIorentINO	PISANO	CRSPINESE	
SENTENCE TYPES	1	<i>Wh</i> -questions	OK	OK	OK
	2	Yes/no questions	OK	OK	OK
	3	Imperatives	OK	OK	OK
	4	<i>Wh</i> -exclamatives	OK	OK	OK
	5	Declaratives	*	*	*
	6	<i>Se</i> -sentences	OK	OK	OK
QUESTIONS	7	Elliptical questions	OK	OK	OK
	8	Long-distance questions	OK		
	9	Special/non-canonical questions (i.e. with attitude expression of the speaker)	OK	OK	OK
	10	Before LDs	OK	OK	OK
	11	After <i>ma</i>	OK	OK	
FURTHER RESTRICTIONS, E.G., NON- EMBEDDABILITY	12	After <i>oppure</i>	OK		
	13	After interjections	OK	OK	OK
	14	Doubling of <i>o</i>	only in combination with vocative <i>o</i> ²¹		
	15	Real embeddability of the particle	*	*	*
	16	Speech act-embedding verbs	OK	OK	OK

5. Analysis

In this section we will model the observation that the particle *o* is specified for particular sentence types, namely imperatives, exclamatives and interrogatives, but not declaratives. We do this by assuming that the feature declarative is a default one which is not encoded in the CP or ForceP, but is derived by the absence of an illocutionary force projection (i.e. CP or ForceP). Indeed, declaratives are expressed as simple TPs in many languages (e.g. English *Mary is dreaming*). Moreover, we will argue that on top of a sentence type phrase, the particle implies a speech act phrase projection which encodes its property, being a speech act marker that has the function of indicating that the utterance in which it occurs is a speech act (e.g. a question) and not just a proposition. The former has a communicative function and can be felicitous or not depending on the discourse conditions, whereas the latter describes a certain state of affairs and can either be true or false with respect to the model of evaluation.

5.1. Modelling sentence type restrictions

Based on the data with which we have shown that the use of the particle *o* is restricted to particular sentence type features, namely imperatives, interrogatives and exclamatives, but not declaratives, we codify these restrictions in the head of a CP, i.e. $C^{\circ}\{\text{imperative, interrogative, exclamative}\}$. We analyze the particle as a specifier of such projection and go into more detail in Section 5.3:

- (62) $[_{CP} o [_{C^{\circ}} \text{se}\{\text{interrogative}\}] \text{un } gl'ho \text{ detto } nulla..]$
O se un gl'ho detto nulla!
o if not him have said zero
'I wish I didn't tell him anything!'
- (63) $[_{\text{ForceP}} o [_{C^{\circ}} \text{che}\{\text{interrogative}\}] \text{vieni..}]$
O che vieni?
o that come
'Are you coming?'

However, this projection must be refined a little, because the particle follows contrastive adverbs like *ma* and the disjunction *oppure*. We will thus extend the representation of the particle by adding another possible projection to the left periphery, namely a coordination phrase (&P).²² This phrase is headed by the disjunction *o* and can coordinate two sentence types, e.g. a declarative and a question with a particle *o* as shown in (37) above:

- (64) [_{&P} [_{CP} [_C{declarative}] *Un hai fatto nulla*] [_& [_& *o(ppure)*]]
 [_{CP} *o* [_C *icché* {interrogative}] *hai fatto...*] (see (36) and (37))

However, this analysis is not sufficient to account for the function of *o* as an indicator of speech acts and for its lack of embeddability. The next subsection deals with the speech act property of *o*.

5.2. The particle *o* is a speech act marker

The data discussed in Section 4 – more precisely the non-embeddability of the utterance with the particle *o* (see Table 1, row 15), scope restrictions (row 8), and its use in different sentence types (rows 1-9) – seem to indicate that the particle *o* marks its right-adjacent utterance as a speech act. We assume in line with Krifka (2014) that speech acts are communication acts in which the speaker expresses some attitude to the addressee; for example, the desire that the addressee tells the speaker which proposition is true in a yes/no question. Furthermore, we assume a semantic model with world/time indices (*i*, *i'*, etc.) and events (*e*, *e'*, etc.) like in Krifka (2014). The following capitalized predicates characterize certain speech acts (assertions, orders/directives, questions, and exclamations). To keep things simple, we ignore the formal semantic notation (cf. Krifka 2014) and continue our analysis with the characterization sketched in (65):

- (65) a. ASSERT (*e*, *s*(speaker), *a*(addressee), *i*)(Φ) (where Φ is a proposition)
 ‘*e* is an event in *i* of asserting by *s* to *a* in the world *i* that Φ ’
 b. DIRECT (*e*, *s*, *a*, *i*)(Φ) (where Φ is a proposition)
 ‘*e* is an event in which *s* obliges *a* to make Φ true in *i*’
 c. QUEST (*e*, *s*, *a*, *i*)(Φ) (where Φ is a set of propositions)
 ‘*e* is an event in which *s* obliges *a* to assert to *s* the true propositions in Φ ’
 d. EXCLAIM (*e*, *s*, *a*, *i*)(Φ) (where Φ is a proposition)
 ‘*e* is an event in *i* of asserting by *s* to *a* in the world *i* a proposition Φ and expressing to *a* that *s* is surprised that Φ is true’

In our analysis, the particle *o* indicates that an utterance is a speech act, as represented in (65). The particle *o* itself cannot represent a specific illocutionary or speech act operator (represented by predicates written in capitals in (65)), because it is not specified for a specific speech act – it appears in questions, orders and exclamations (see Table 1). Instead, *o* just indicates that the utterance it modifies must be a speech act, however it does not specify which speech act. Thus, it may be an illocutionary-force-indicating device (**IFID**; see also Krifka 2014 for the same idea with discourse adverbs in general).

We therefore assume that the particle *o* itself is not a speech act operator but rather a modifier of it. A speech act modifier can express

some attitude of the speaker, as is indeed the case with special questions (Table 1, row 9) (cf. also Raddi 2003, Garzonio 2004). We can therefore describe these attitudes as modifiers of performative uses of speech act verbs, such as QUEST, DIRECT, or EXCLAIM:

- (66) a. I ask you “are you hot with a negative attitude”, therefore I deny the proposition that you are hot.
Chiudi quella finestra, o cche cci ha’ calori?
 close that window o that there have heat
 ‘Shut the window, are you hot?’
- b. I sarcastically oblige the addressee to make it true that I will be informed about what Cilegia has to say.
O sentiamo icché cià da ddire i’nostro maestro Cilegia.
 o hear what us-has to say the our master Cilegia
 ‘Let’s hear what our master Cilegia has to tell us.’
- c. I emphatically exclaim that the addressee is beautiful to a very high degree.
O come tu sè bella nini!
 o how you are beautiful darling
 ‘How beautiful you are darling!’

It is important to note that the modifier represented by the particle *o* does not apply to the descriptive use of the sentence, because it does not have a lexical semantic interpretation as lexical nouns or verbs do. In this sense, it is comparable to all kinds of expressives (cf. Potts 2003) or modal particles (Coniglio 2011). Consider also that all these elements share some restrictions of their use (e.g. optionality, scope restrictions, non-embeddability, speaker or hearer relation, sentence type restrictions). We hope to explore the connection between the particle and all kind of expressives and modal particles in future research. As the particle *o* is used in speech acts, it can only be used in direct speech and thus only be embedded under reported speech verbs such as *say*:

- (67) a. *La professoressa / gli dice / o te / icché tu fa’ chi?*
 ‘The professor tells him “what are you doing here?”’ (Fi) [STAMM 553]
- b. *‘Eddie // cominciò a fare o che famiglia l’ ha?’*
 ‘For God’s sake, she began to say “but he has a family?”’ (Fi) [CORAL ifamcv22]

In the following subsection, we illustrate how the speech act function can be represented in the syntactic structure.

5.3. Modelling the speech act markedness in syntax

We argued that *o* as a particle is a speech act marker. If this analysis is on the right track, it presupposes that CP, which marks sentence types, must be split in at least one further projection: a speech act phrase (**SaP**), in line with Speas & Tenny (2003) (cf. also Benincà 2001, Coniglio & Zegrean 2010, Miyagawa 2012 for a splitting ForceP).

(68) [SaP *o* Sa°{order, ask,...}] [CP{imperative, interrogative,...}]²³

As to the syntactic status of the particle, we do not assume that the particle *o* expresses a specific illocutionary or speech act operator, such as a question operator, because it is not specified as such. It is rather a specifier of a speech act operator (see Zimmermann 2004 for the assumption that Modal Particles like *wohl* in German are specifiers and not heads).

We explain the absence of the particle in declaratives (see e.g. (55) in 4.1.2) by the observation that declaratives are usually morphosyntactically unmarked in many languages, i.e. languages usually do not use a special marker for declarative sentences (cf. Sadock & Zwicky 1985, Levinson 2010, Roberts 2010, among others). We therefore assume that declaratives lack sentential force, or, to put it differently, they do not represent a special sentence type. This assumption could explain why the particle *o* does not appear in declaratives. This is stronger than the alternative approach, that consists of listing all sentence types (possibly via formal features) which a particle can select as an argument, such as imperatives, questions, and exclamatives.

As a consequence, we assume a feature mechanism of probes and goals (cf. Chomsky 2000). Then, we argue that the speech act operator represented by Sa° selects a CP with an interpretable sentence type feature or sentential force [*i*Force]. The speech act operator itself is not specified for a special sentence type feature. That is why it has an unvalued force feature [*u*Force]. The speech act operator marks the sentence type as a speech act and thus contains an interpretable valued speech act feature [*i*Sa]:

(69)
$$\begin{array}{l} \text{Sa}^\circ \quad [i\text{Sa}] \quad [u\text{Force}] \\ \text{C}^\circ \quad [i\text{Force}] \quad [u\text{Sa}] \\ \text{[SaP} \quad \text{Sa}^\circ \quad \text{CP} \\ \quad \quad [u\text{Force}] \quad [i\text{Sa}] \quad [i\text{Force}] \quad [u\text{Sa}]] \end{array} \quad == \text{AGREE} ==>$$

In what follows, we represent different occurrences of the particle *o*. In the first structure, an information-seeking *wh*-question introduced by *o* is shown:

(70) *O chi l'è questa?*
 o who it is this
 'Who's that (in the picture)?'
 (Fig. 1)

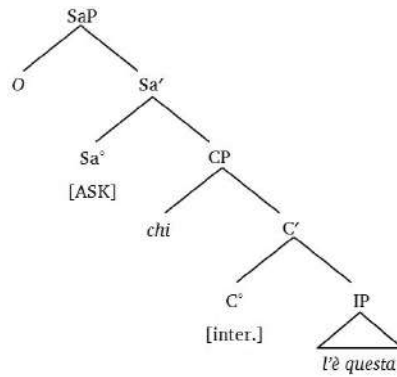


Figure 1. *O* in wh questions.

The following structure shows a *wh*-question which contains the particle *o* followed by a topic (*la Elisabetta*). As topics can precede *wh*-questions in Tuscan and Standard Italian, we assume a TopicP above the CP with the interrogative feature:

- (71) *O la Elisabetta icchè la fa?*
 o the Elisabetta what she does
 'What does Elisabetta do?' (Fig. 2)

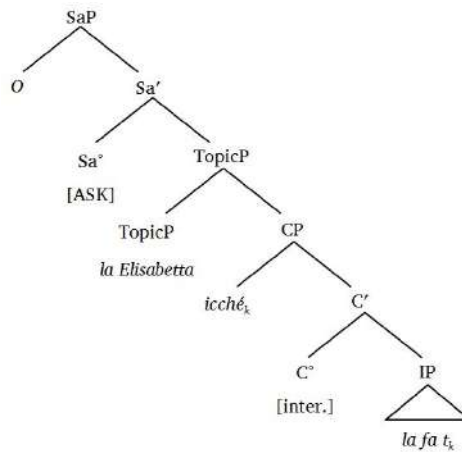


Figure 2. *O* in wh questions with fronted TopicP.

The following structure represents a yes/no question introduced by the complementizer *che* and preceded by the particle *o*, which is marked as an interrogative clause:

- (72) *O che un tu l'ha capito?*
 o that not you it have understood
 'Didn't you understand it?' (Fig. 3)

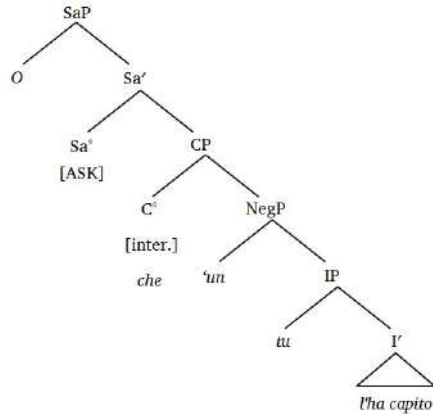


Figure 3. *O* in yes/no questions introduced by *che*.

The following example shows a speech act of an order and an imperative clause as sentence type. The particle *o* modifies the speech act 'order' and not the interrogative sentence type, which represents the embedded clause and thus cannot be preceded by the particle *o* (see 4.1.1 for the embeddability restriction):²⁴

- (73) *O sentiamo icchè cià da ddire...*
 o hear what there-has to say
 'Let's hear what he has to say...' [see (6b)] (Fig. 4)

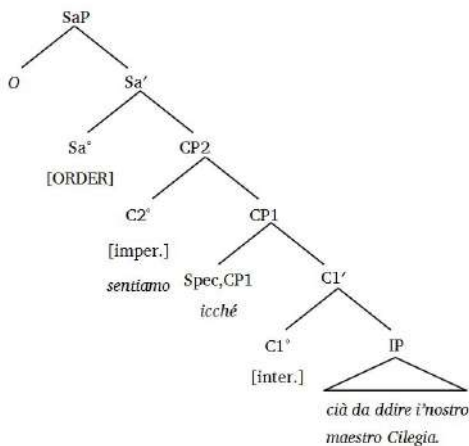


Figure 4. *O* in imperatives.

This approach accounts for some properties that were discussed in Section 4. The particle is a specifier of a speech act operator which must take a sentence type as its argument and thus cannot appear in subordinated clauses that have an impoverished CP projection (cf. Haegeman 2006). This explains the non-embeddability of the particle *o* and its left-peripheral position in long distance questions and its scope position. The following question, in (74), shows that the particle *o* modifies the matrix clause but not the embedded clause, because the surprise of the speaker has scope over the matrix clause but not over the embedded clause, so that the surprise has scope over the proposition of the whole utterance (as in ‘he believes that I didn’t know’). This proposition represents a partial answer for the question denotation {he believes that I didn’t know, he does not believe that I didn’t know}:

- (74) *O che crede che un lo sappia?*
o che believes that not it knew
 ‘Does he really believe I didn’t know it?’ (Fi)

Concerning the cases of repetition of the element *o* (see Section 3.2) – according to our data, such repetition is only used if the first *o* is in front of proper names and hearer-referring pronouns – we analyze *o* in these sentences as belonging to two distinct types: one has a vocative function and the other is the particle *o*, as illustrated in (75). We ignore, for the moment, whether the vocative constituent and the adjacent sentence build a complex utterance that must be jointly analyzed (for example, as a speech act) or the vocative makes up its own speech act.

- (75) a. [_{Vocative} *O(h) babbo*], [_{Interrogative} *(o) icchè tu ci fa costi?*]
 oh dad (o) what you there make here
 ‘Oh Dad, what are you doing here?’ (Fi)
- b. [_{Vocative} *O Bistino*], [_{Interrogative} *o te ‘un ha’ mai studiato nulla?*]
 o Bistino o you not have never studied anything
 ‘Oh Bistino, did you never learn anything?’ (Pi) [Mal78]

There are some arguments for analyzing the vocative and the interrogative as two distinct speech acts: both can be separated either orthographically by punctuation or by prosody (phrase boundary intonation) (but see Espinal 2011, Moro 2003 for an alternative analysis of vocatives):

- (76) [_{Speech Act 1=Vocative} *O Babbo*?!] [_{Speech Act 2=Interrogative} *O cosa gliè*
o Dad o what it-is
r fonografo d’Edisonne?]
 the phonograph of Edison
 ‘Oh Dad?! What exactly is Edison’s phonograph?’ (Pi) [Mal201]

To sum up, we assume that the particle *o* is merged as a specifier of a speech act operator. The speech act operator can be a question, an imperative or an emphatic assertion. It is not specified as a feature of a special sentence type. We have shown where the particle *o* is located within different sentence types: in imperatives, *wh*-interrogatives with and without topics, and in yes/no questions.

6. Outlook and future research

In this paper we argued that the particle *o* has a different function than the homophone vocative *o* and the disjunction *o*, this argumentation was based on results obtained from Tuscan (especially from a corpus study and from questionnaires). The particle *o* appears in utterances that are marked for both sentence type and speech act. Therefore, the particle *o* cannot appear in declaratives which are not marked for sentence type. Furthermore, utterances with the particle *o* are not embeddable, due to the speech act character of the utterance they modify. The discourse function of the particle *o* often involves marking of the speaker's attitude to a certain degree (e.g. impatience, surprise, etc.). We suggested a model of these features (especially the appearance of the particle *o* in speech acts and expression of the speaker's attitude) within a generativist framework that splits up the left periphery of the sentence into a sentential force (CP or ForceP) and a Speech Act Phrase (see Speas & Tenny 2003, among others).

Two important questions that should be addressed in future research are:

- a) whether all kinds of conjunctions and coordinations can occur with speech act operators;
- b) whether we can find theoretical and empirical evidence for the following structure:

(77) [&P *oppure* [SaP *o* [CP {imper, inter, exclam,...} ...]]]

According to Krifka (2014), speech acts are embeddable under certain logical operators, such as coordination. Should we explain the non-embeddability of the particle *o* syntactically or semantically? (cf. Miyagawa 2012 for the first explanation and Heycock 2006 for the second). Our observation that the particle *o* is only embeddable under verbs of saying seems to contradict Krifka's (2014) assumption that question speech acts might be embedded under question-embedding predicates such as *I wonder* or *I want to know*. However, we do not

yet know why certain question speech acts analyzed by Krifka (2014) can be embedded under question-embedding predicates and questions with the particle *o* cannot. We suggest that this would also be an interesting path for future research.

The following data seems to raise a problem with the assumption that the particle *o* is not embeddable (see also Garzonio 2004). The *wh*-in situ question in (78) represents an embedded infinitive clause which specifies the noun *mania* ‘addiction’, i.e. *una mania di fare qualcosa* ‘the addiction to do something’:

- (78) Maria: *L'è una mania, sai.*
 ‘She is addicted.’
 Paolo: *O di fare icchè?²⁵*
 ‘Addicted to what?’ (Fi)

Since the infinitive clause is an embedded clause, we don’t expect the particle *o* in the left periphery of an infinitive clause contrary to e.g. (78), given the observation that the particle cannot be embedded (as we have shown in 4.1.1). Note that another problem with this data is that an infinitive clause hardly represents an interrogative clause. There is also a problem with the assumption that *o* is linked to sentence types like interrogatives because infinitive clauses are not typed for illocutionary force.

It seems that the appearance of the particle is restricted to embedded clauses that are not overtly embedded. We would thus predict that the reconstructed case in which the infinitive clause is embedded under the noun phrase should be ungrammatical, which is indeed the case:

- (79) Maria: *L'è una mania (*o) di fare icchè?*
 ‘She has an addiction (*o) of doing what?’ (Fi)

More data on such covertly embedded clauses are needed to test the generalization of non-embeddability of the particle *o*. We have not sought to answer this question and instead leave this issue for future research.

Besides some open questions, we hope to have contributed to the research on particles in Italian dialects and, more precisely, to particles that show embeddedness constraints.

Notes

¹ Crespinese is a rural variety of Pisano, spoken in Crespina.

² These are the disjunction of [ppure] ‘or’ in, e.g. *Mario o Marco* ‘Mario or Marco’, the vocative of [h] *Mario!* ‘hey Mario’, and the interjection of [h], *piove!* ‘oh, it rains!’.

³ The examples taken from the literature cited in this section carry the original glosses (if existent). We also did not change the translations. Glosses and translations were added where they were not existent, e.g. in Rohlfs (1954). Additionally, we kept the original accentuation of the examples.

⁴ See also Prieto & Rigau (2005) for the question particle *o* in a Catalan variety.

⁵ We assume that the non-embeddability of questions with *o* in (4) is restricted to questions as sentence types and not to questions as speech acts because speech acts can indeed be embedded under verbs of saying, as inversion in English illustrates: Inversion is usually restricted to root questions but can be embedded under verbs of saying: i. **I don’t know did you go to the party tonight.* ii. *Tell me did you go to the party tonight?* Note however that the example in (4) is a little bit misleading, as has been pointed out also by a reviewer because questions as sentence types are usually embeddable under question predicates (e.g. to know, to ask), whereas verbs of saying are not prototypical question predicates (on inversion see Roberts 1993, among others).

⁶ According to Garzonio (2004: 17), the particle *o* may “be generated in different heads depending on the non-standard interrogative type it has to mark”. However, he does not explain nor exemplify this point any further. Also some microvariation among the speakers is attested by Garzonio (2004: 16-17) concerning LDs w.r.t. their position before or after the particle *o*.

⁷ This example may be seen as a contradiction in Garzonio’s (2004: 17) research and analysis concerning the position of the particle *o* w.r.t. HT since *o* usually has to follow HT (see above). Garzonio (2004: 16) however already observed that “it is possible to reduplicate the particle, adding another *o* before the HT”.

⁸ Garzonio (2004: 3) discusses mainly interrogatives that have a function of an imperative (cf. Garzonio 2004: 8). He mentions the use of *o* in ‘real’ imperatives, but does not provide any further analysis of this use. In Lusini (2009), a short chapter on imperative interrogatives and also on imperatives is presented, giving some evidence and examples for Sienese. The analysis drawn by the author is the following: the particle *o* “can realize a [+imperative]” and that “Sieneese needs to mark the [+imperative] feature on the verb as well” (Lusini 2009: 108).

⁹ See corpora section in the bibliography on details about the textual sources.

¹⁰ Eleven speakers between the ages of 17 and 60 who were born or grew up in Florence valued the examples from our questionnaire on a scale from 1 to 5 (1 = not acceptable, 5 = perfect). All speakers use the Fiorentino dialect with friends and family and write on the Internet in Fiorentino. If not indicated otherwise, the Fiorentino examples in the present article are taken from our own questionnaire. We thank Alessandro Panunzi for his help with the data collection.

¹¹ Cf. corpora section in the bibliography for details.

¹² Cr = Crespinese; Fi = Fiorentino; Pi = Pisano (cf. reference list for the acronyms used in square brackets). The examples all represent spoken or spoken-style language examples.

¹³ The IPA transcription is based on the original transcription in *VIVALDI*. We used a colon for indication consonant lengthening (it. ‘raddoppiamento sintattico’) (cf. Nespor & Vogel 1986).

¹⁴ According to phonological distinction exemplified in the present article between the interjection *o(h)* and the particle *o*, we should expect no break between the particle *o* and the adverb *domani*. This assumption should be tested

in future research with native speakers. It should also be tested whether consonant lengthening is also induced in such cases, as it is the case with the particle *o* followed by the complementizer *che* or *wh*-words like *come* ‘how’.

¹⁵ On a detailed analysis of interjections as discourse markers and/or pragmatic markers see, e.g. Heritage (1984) and Schiffrin (1987), on *oh* see Norrick (2009).

¹⁶ Empirically, these predicates behave differently because they can introduce a speech act: (a) *Senti/ma te li sei provati?* [CORAL itelpv16] ‘Listen, did you try them?’ (b) *Senti/ quando tornate/ voi?* ‘Listen, when are you coming back?’ [CORAL itelpv17].

¹⁷ However, it might be argued that *o* is not a question particle in (47a) but a vocative. We thank a reviewer for this comment. It could be argued that the question particle precedes a left dislocated element which happens to be a hearer referring pronoun.

¹⁸ Some Fiorentino speakers also represent the consonant lengthening orthographically in imperatives, e.g. *ossenti!* ‘Listen!’ (cf. Section 3.1 for examples with questions).

¹⁹ The particle *o* is used in less than 5% of all questions in the spoken corpus CORAL; this is less frequent than the use of the adversative element *ma* ‘but’. The most common use of *o* in CORAL is with the complementizer *che* (34 occ.), followed by *icché* (15 occ.), the negation *un* (13 occ.), *perché* ‘why’ (8 occ.), *come* ‘how’ (8 occ., 2 of which are *wh*-exclamatives, e.g. *O come parla!* ‘How [beautiful] she speaks!’), *indoe/’ndo/dove* ‘where’ (5 occ.), *chi* ‘who’ (2 occ.), and *quale,i* ‘which’ (2 occ.).

²⁰ Empty cells = no data so far.

²¹ The results do only represent our findings on the particle *o*. According to Garzonio (2004) and Lusini (2009), doubling of the particle is also possible with HT in Fiorentino and Siense. However, such cases are not attested in our corpus research.

²² For a detailed discussion on the representation of coordination on a syntactic level see e.g. Munn (1993) and Johannessen (1996); for the respective label “&P” see Hale (1989) and Larson (1990), among others.

²³ Our syntactic structure of a Speech Act Phrase (SaP) does not fully converge with the structure proposed by Speas & Tenny (2003) because we do not subdivide the structure in speaker, hearer and utterance content. What is more important for us in the analysis presented in this article is the assumption that the particle *o* is not a mere specifier of a sentence type head (C° or Rizzi’s Force°).

²⁴ We simplify the structure of the imperative in Figure 3 by representing the imperative verb *sentiamo* directly in C° and not in V° (cf. Zanuttini 1997: 134ff. on representing the verb or – at least – an imperative feature in C° in the Romance languages).

²⁵ One male speaker (25 years old) did not fully accept the particle in this example. However, he judged it better than *Di fare (*o) icchè?* ‘Addicted to (*o) what?’.

Bibliographical References

Corpora

Cr = data in Crespinese vernacular taken from:

Er pisano di ‘ampagna <<http://www.ilcrespinese.it/>>. (last access: April 2015).

Fi = data in Fiorentino vernacular taken from:

alfem = <http://forum.alfemminile.com/forum/mariage1/_f320708_mar

- iage1-O-icche-vu-die-io-unn-intendo-nulla.html>. (last access: January 2015).
- CORAL = Cresti, Emanuela & Moneglia, Massimo (eds.) 2005. *C-ORAL-ROM: Integrated Reference Corpora for Spoken Romance Languages*. Amsterdam: John Benjamins.
- noiteatro = “La cucina sott’acqua” due atti in lingua fiorentina da un’idea di Cristiano Malvenuti scritta da Antonella Zucchini <<http://www.noiteatro.it/copioni/la-cucina-sott-acqua.pdf/>>. (last access: September 2015).
- SAMMORO = San Mauro a Signa – facebook-page of San Mauro a Signa (province of Florence), <<https://www.facebook.com/pages/San-Mauro-a-Signa-Sammoro/134863283320309>> (last access: September 2015).
- STAMM = Corpus of Harro Stammerjohann 1971: collection of about 41:15 hours of spontaneously spoken Fiorentino, recorded in 1965, digitalized in 2001 by the *LABLITA Research Unit* at the Humanities Department of the University of Florence. Part of it is also available in written format in:
- Stammerjohann, Harro 1970. Strukturen der Rede. Beobachtungen an der Umgangssprache von Florenz. *Studi di Filologia Italiana* XXVIII. 295-397.
- theflor = <<http://www.theflorentine.net/articles/articles.asp?browse-by=florentinisms>>. (last access: January 2015).
- Pi = data in Pisano vernacular taken from:
- Fuc = Fucini, Renato 1872. Cento Sonetti in Vernacolo Pisano. *Le Poesie di Neri Tanfucio*. Milan: Trevisini.
- Mal = Malagòli, Giuseppe 1916. *La letteratura vernacola pisana*. Pisa: Bemporad.
- VIVALDI = *Vivaio Acustico delle Lingue e dei Dialetti d’Italia* <<http://www2.hu-berlin.de/vivaldi/>>. (last access: September 2015).

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Appendix

The following acoustic data has been taken from Crespinese corpus and analysed with *Praat* (<http://www.fon.hum.uva.nl/praat/>). The following Praat pictures show that the ‘raddoppiamento sintattico’ is absent in the case of interjection *o(h)* (see Fig. 5) but not in the case of the particle *o* (represented by consonant lengthening [k:]) after the vowel *o* in Fig. 6. The first figure shows that in the case of interjections there can be even a little intonational break blocking consonant lengthening which occurs in the case of the particle *o* in the second figure. The intonational break after the interjection indicates that interjections constitute their own prosodic units. The lack of an intonational break in Fig. 6 suggests that particles should be analyzed intonationally and syntactically dependent on the adjacent utterance they appear in.

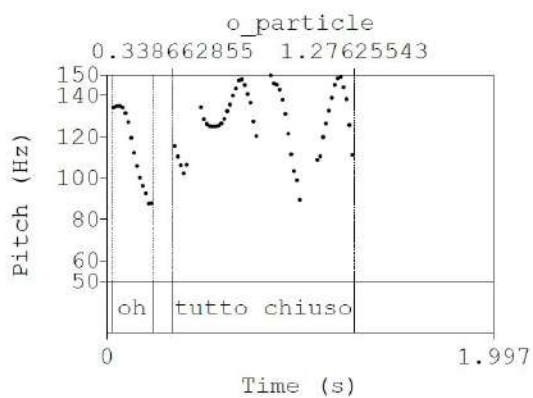


Figure 5.

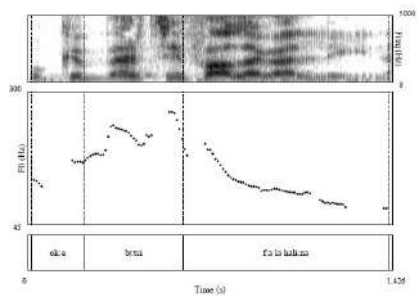


Figure 6.