Obviation in subjunctive argument clauses and the first-personal interpretation

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1. Introduction

The phenomenon of obviation in Romance subjunctive clauses, which is sometimes referred to as "subjunctive disjoint reference effect" (Kempchinsky 1985) has been discussed at least since the early 1980s. Generally speaking, these terms, "obviation" and "subjunctive disjoint reference effect" refer to the fact that a null (in Catalan, Italian, Portuguese, Spanish) or a clitic (in French) subject in a subjunctive embedded clause cannot be coindexed with the subject of the embedding clause.

Most of the hypotheses worked out along the years claim that the phenomenon at issue follows from the interpretative properties of subjunctive mood (particularly, its nature of "anaphoric" mood) and the Binding Theory. Particularly, obviation is supposed to stem from a violation of Condition B – the pronominal (null or clitic) subject is claimed to be bound in its binding domain, contrary to Condition B. Proposals based on the Binding Theory are able to account for a crosslinguistically uniform set of data – subjunctive obviation has been studied in many Romance languages: Catalan (Picallo 1985), French (Bouchard 1982, 1983; Ruwet 1984; Farkas 1992; Tsoulas 1996; Schlenker 2004), Italian (Manzini 2000), Portuguese (Raposo 1985), Spanish (Kempchinsky 1985, 1998; Suñer 1987); furthermore, it has been studied in non-Romance languages, such as Russian (Avrutin 1994; Avrutin and Babyonyshev 1997).

Alternative proposals, based on the observation that (necessarily obviative) subjunctive clauses are complementary to (necessarily non-obviative) infinitive clauses, are also able to account for a crosslinguistically uniform set of data.

This notwithstanding, well known examples, originally discussed by Ruwet (1984, 1991), are still unaccounted for. Some recent proposals on binding properties of subjunctive argument clauses – particularly, the ones concerning long distance anaphors (Giorgi 2004) – seem to cast new light on the phenomenon at issue. Particularly, the hypothesis will be explored that obviation in subjunctive clauses can be traced back to a grammatical principle which prevent a syntactic formative serving as the subject in a subjunctive clausal argument from being interpreted first-personally in the sense of

Castañeda (1966, 1968) and Higginbotham (2003), while allowing only implicit arguments to be interpreted first-personally. In a way, this proposal is reminiscent of Farkas' (1992) and Schlenker's (2004). But differently from these proposals, it tries to account for obviation in subjunctive argument clauses not in terms of mood competition, rather in terms of explicit (i.e. syntactically projected arguments) versus implicit arguments (i.e. unassigned θ-positions) in certain embedded clauses – the ones in which the speaker is not represented (Giorgi and Pianesi 2001). This proposal is able to predict (a) the contrast between subjunctive clauses, which show obviation effects, and indicative clauses, which do not; (b) the contrast between subjunctive clauses, which cannot generally be interpreted first-personally, and infinitive clauses, which must be interpreted first-personally; (c) the contrast between subjunctive clauses in which the lexical verb bears subjunctive morphology, which instantiate obviation effects, and subjunctive clauses in which the lexical verb is an infinitive, a participle, or a gerund, which do not instantiate obviation effects.

For reasons of space I would like to describe only sentences presenting the following properties: (a) the subjunctive clause is an *argument* clause, not an adverbial clause (for a discussion on obviation in some adverbial subjunctive clauses I refer to Manzini 2000); (b) the subject of the subjunctive clause is third person singular; furthermore, it is phonologically null[1]; (c) the matrix predicate is epistemic; emotive-factive contexts will not be considered.

I would like to proceed as follows: in section 2 I will describe the phenomenon at issue in a general way. In section 3 I will extend the analysis and sum up the most important hypothesis. Finally, in section 4, I will outline an alternative proposal based on some properties of subjunctive clauses and of non-finite verbal forms.

2. Basic Data

The puzzle of obviative effects in Romance subjunctive clauses has been widely discussed by generative linguists since the early 1980s. The sentence in (1) exemplifies this phenomenon in Italian:

(1) *Gianni vuole che parta.*

[1] For a discussion on the properties of phonologically realized subjects as opposed to those of phonologically unrealized ones in Italian, see Calabrese (1986) and Samek-Lodovici (1996).

Gianni wants that (she/he) leaves-subj
'Gianni wants her/him to leave'.

I will give the following representation of sentence (1)[2]:

(2) *Gianni$_i$ vuole che pro$_{*i/j}$ parta*.
Gianni$_i$ wants that pro$_{*i/j}$ leaves-subj
'Gianni wants *himself/her/him to leave'.

The representation by indexes in (2) means that in sentence (1) *Gianni* and *pro* cannot be coreferent – i.e., they are disjoint in reference or obviative[3].
In the following sentence the embedded subject can be coreferent with the matrix one:

(3) *Gianni$_i$ ha deciso che pro$_{i/j}$ partirà domani*.
Gianni$_i$ has decided that pro$_{i/j}$ leaves(ind) tomorrow
'Gianni decided that he will leave tomorrow'.

In sentence (1) the embedded verb is a subjunctive form, whereas in sentence (3) it is an indicative.
Moreover, in the following sentences the embedded and the matrix subjects must be coindexed:

(4) a. *Gianni$_i$ vuole PRO$_{i/*j}$ partire.*
Gianni$_i$ wants PRO$_{i/*j}$ leave(inf)
'Gianni wants to leave'.

b. *Gianni$_i$ ha deciso di PRO$_{i/*j}$ partire domani.*
Gianni$_i$ has decided DI PRO$_{i/*j}$ leave(inf) tomorrow
'Gianni decided to leave tomorrow'.

In sentences (4) and (4) the verb in the embedded clause is an infinitive and *Gianni* controls PRO.

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[2] In writing this representation, I will assume the existence of a null pronoun, *pro*, as a syntactic constituent (for an alternative proposal, see Alexiadou and Anagnostopoulou 1998) and adopt the customary notation by referential indexes – the same index is assigned to coreferent NPs, different indexes are assigned to NPs which do not corefer.
[3] I will exclude from the analysis the case of accidental coreference.

Thus, subjunctive clauses are different from indicative and infinitive clauses, in that only in the former type of clause is the coindexation forbidden between the matrix and the embedded subject.
Given these data, the following question arises:

(5) In sentences like (2), why is coindexation forbidden between the matrix subject and the embedded subject?

3. Other data and existing theories

3.1. Subjunctive vs. infinitive?

Existing accounts of this problem split into two types of approach: the "competition" approach, and the Binding-Theoretical approach.
The first type of account stems from the tenet that obviation is the consequence of the "competition" between subjunctive and infinitive forms (Bouchard 1982, 1983; Farkas 1992; and Schlenker 2004). The basic hypothesis is the following one: if coreference between the matrix and the embedded subject is expressed by means of an infinitive clause, it cannot be expressed by means of a subjunctive complement clause. This hypothesis immediately accounts for the contrast between sentences (2) and (4).
This hypothesis predicts that subjunctive and infinitive are complementary: when infinitive is available, the subjunctive is not, and vice versa. However, contexts in which subjunctive and infinitive are not complementary *do* exist. Take for instance the following examples in Italian[4]:

(6) a. *Gianni$_i$ sperava che pro$_{i/j}$ potesse partire il giorno dopo*.
Gianni$_i$ hoped that pro$_{i/j}$ was(subj) able to-leave the day after
'Gianni hoped that he was able to leave on the following day'.

b. *Gianni$_i$ sperava di PRO$_{i/*j}$ poter partire il giorno dopo*.
Gianni$_i$ hoped DI PRO$_{i/*j}$ to-be-able to-leave the day after
'Gianni hoped to be able to leave on the following day'.

[4] This example is similar to one of those discussed by Ruwet (1991):

(i) ?*Je veux que je puisse partir dès demain*.
I want that I can(subj) leave(inf) by tomorrow

Notice that in (6) the matrix subject, *Gianni*, obligatorily controls PRO. Hence, *Gianni* and PRO corefer. The fact that in sentence (6) *Gianni* and *pro* may carry the same referential index is unexpected under competition theories[5].
Example (6) also shows that question (5) is too general, since contexts in which coindexation between the matrix and the embedded subject do exist. A more appropriate question, descriptive in nature, would be the following one:

(7) In which sentences with a subjunctive clausal complement is coindexation forbidden between the matrix and the embedded subject?

In example (6) the subjunctive verb is a modal. This property distinguishes example (6) from example (2).

3.1.1. Other non-obviative subjunctive argument clauses

In other sentences in which the coindexation between the matrix and the embedded subject is allowed the subjunctive verb is not lexical[6]. In embedded clauses with an auxiliary, the coindexation between the matrix and the embedded subject is not completely ruled out[7]:

(8) *Gianni$_i$ sperava che pro$_{?i/j}$ avesse fatto pochi errori.*
Gianni$_i$ hoped that pro$_{?i/j}$ had(subj) made few mistakes
'Gianni hoped that he had made few mistakes'.

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[5] Notice that in sentence (6) the coreferential reading is not gained via accidental coreference. This can be proved by means of sentences like the following one:

(i) *Ogni ragazzo$_i$ sperava che pro$_{i/j}$ potesse partire il giorno dopo.*
Every boy$_i$ hoped that pro$_{i/j}$ could(subj) leave the day after
'Every boy hoped that he was able to leave on the following day'.

In the sentence above the matrix subject is a quantifier binding *pro*.
[6] See also Ruwet (1991) for examples in French, Raposo (1985) for examples in Portuguese, and Quer (2005) for examples in Spanish.
[7] The judgments on this sentence may vary. However, all the Italian native speakers required to give grammaticality judgments on the sentences discussed her agree that in sentence (8) the coreferential reading can be marginally available, whereas in sentence (1) it cannot be available at all.

Although the coreferential interpretation might be marginal, still it does not seem to be excluded at all. Notice that the infinitive is available as well:

(9) *Gianni$_i$ sperava di PRO$_{i/*j}$ aver fatto pochi errori.*
Gianni$_i$ hoped DI PRO$_{i/*j}$ have(inf) made few mistakes
'Gianni was afraid to have made many mistakes'.

Another example of non-obviative subjunctive clause is given by embedded clauses whose subjunctive verb is passive. Like example (8), these examples involve a subjunctive (passive) auxiliary:

(10) *Gianni$_i$ sperava che pro$_{i/j}$ fosse autorizzato a partire.*
Gianni$_i$ hoped that pro$_{i/j}$ was(subj) authorized to leave
'Gianni hoped that he was authorized to leave'.

Again, coreference can also be expressed by means of an infinitival clause[8]:

(11) *Gianni$_i$ sperava di PRO$_{i/*j}$ essere autorizzato a partire.*

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[8] If the subjunctive verb in the clause is a passive auxiliary and the participle is a past form, the coindexation between the matrix and the embedded subject is even more acceptable than in example (10):

(i) a. *Gianni$_i$ sperava che pro$_{i/j}$ fosse stato autorizzato a partire.*
Gianni hoped that pro$_{i/j}$ was(subj) been authorized to leave
'Gianni hoped that he had been authorized to leave'.

b. *Gianni$_i$ sperava di PRO$_{i/*j}$ essere stato autorizzato a partire.*
Gianni hoped DI PRO$_{i/*j}$ be(inf) been authorized to leave
'Gianni hoped to have been authorized to leave'.

Moreover, if the subjunctive verb is modal and the infinitive is passive, the coindexation is also possible.

(ii) a. *Gianni$_i$ sperava che pro$_{i/j}$ potesse essere autorizzato a partire.*
Gianni hoped that pro$_{i/j}$ was-able(subj) be(inf) authorized to leave
'Gianni hoped that he could be authorized to leave'.

d. *Gianni$_i$ sperava di PRO$_{i/*j}$ poter essere autorizzato a partire.*
Gianni hoped DI PRO$_{i/*j}$ be-able(inf) be(inf) authorized to leave
'Gianni hoped to be able to be authorized to leave'.

Gianni$_i$ hoped DI PRO$_{i/*j}$ be(inf) authorized to leave
'Gianni hoped to be authorized to leave'.

Finally, subjunctive clauses with a progressive auxiliary are also possibly interpreted under a coreferential interpretation:

(12) a. #*Gianni$_i$ credeva che pro$_{i/j}$ stesse facendo molti errori.*
Gianni$_i$ thought that pro$_{i/j}$ was making many mistakes.
'Gianni thought that he was making many mistakes'.

b. **Gianni$_i$ credeva di PRO$_i$ star facendo molti errori.*
Gianni$_i$ thought DI PRO$_i$ be(inf) making many mistakes.
'Gianni thought that he was making many mistakes'.

Notice that judgments may vary with respect to sentence (12). However, the coreferential reading is more acceptable in sentence (12) than in (1).
In any of the examples in which obviation does not occur despite the presence of a subjunctive, a modal or an auxiliary verb appears – let us include modal and auxiliary verbs under the label of "functional" verbs. In these examples the full (or lexical) verb has a non-finite form: infinitive, participle, or gerund. This distinction seems to be crucial. Hence, the following generalization seems to hold:

(13) Coindexation between the matrix and the embedded subject is ruled out if the verb carrying subjunctive morphology is a full verb; it is allowed if the verb carrying subjunctive morphology is a functional verb and the full verb is non-finite.

3.2. Obviation, subjunctive mood and binding domain

Generalization (13) is unexpected both under competition hypotheses and under hypotheses based on the Binding Theory.
The latter type of approach is based on the claim that the binding domain for a subject *pro* in a subjunctive clause includes the subject of the main clause. Suppose that in sentence (2) the matrix and the embedded subject was coindexed. The matrix subject c-commands the embedded subject. Furthermore, suppose that the binding domain of the embedded subject includes the matrix subject. Then, the latter would bind the former. In other

words, *pro* would not be free in its binding domain. This violates Principle B of Binding Theory:

(14) A pronominal is free in its binding domain.

Many hypotheses have been worked out on how the binding domain of the embedded subject happens to include the matrix subject. Generally, some interface properties of the subjunctive mood in dependent clauses are claimed to be responsible for such an operation. The crucial property is that subjunctive has not a temporal reference of its own – that is, it does not set an event with respect to the time of the utterance. This property distinguishes indicative and subjunctive mood[9].
Let us go back to the main question, i.e. why the binding domain of the embedded subject includes the matrix subject. This question has been a matter of discussion and many proposals have been worked out. Some of them claim that the binding domain of the embedded subject is the whole sentence – this may be due to the temporal properties of subjunctive (Picallo 1985; Rizzi 2000) or to the properties of the complementizer of subjunctive clauses (Kempchinsky 1985, 1998; Suñer 1986); some other claim that only the matrix and the embedded AgrS are included in the same binding domain (Avrutin 1994; Avrutin and Babyonyshev 1997; Manzini 2000). The former approach seems to be more powerful, in that it is able to account for the following kind of example:

(15) a. *Preoccupava Gianni$_i$ che pro$_{*i/j}$ partisse il giorno dopo.*
Worried Gianni$_i$ that pro$_{i/*j}$ left(subj) the day after.
That he/she left on the following day worried Gianni.

b. *A Gianni$_i$ sembrava che pro$_{*i/j}$ partisse il giorno dopo*.
To Gianni$_i$ seemed that pro$_{*i/j}$ left(subj) the day after.
'It seemed to Gianni that he/she would have left

In sentences (15) and (15) obviation occurs between the embedded subject and a matrix object that does not agree with the matrix verb. Theories that claim that the binding domain of the embedded subject is the whole sentence are generally able to account for these examples; theories that cru-

[9] The lack of temporal reference of the subjunctive mood has at least two effects, widely noticed in the literature: temporal anchoring: temporal anchoring (see Enç 1988, 1989) and sequence of tense effects (see Giorgi and Pianesi (2001).

cially refer to AgrS are not; *Gianni* does not indeed agree with the matrix verb[10]. In terms of checking theory, this is to say that [Spec; AgrS] is not an appropriate landing site for *Gianni*.

Most importantly, however, the theories based on the Binding Theory are unable to explain generalization (13)[11].

Examples (15) show that generalization (13) is not precise enough. It defines obviation as a phenomenon occurring between the matrix and the embedded subject. But in sentences (15) the argument with respect to which the embedded subject cannot be coindexed is not the subject: in (15) it is the direct object, in (15) it is an indirect object. It seems that the argument to which the experiencer θ-role is assigned, rather that the subject, subject is involved in the phenomenon at issue[12].

Alternatively, one may hypothesize that in sentences (2), (15), and (15), *Gianni* occupy the same syntactic position at an appropriate level of representation. Such a position would be dedicated to the attitude bearer – that is, the person who has some attitude (will, believe, hope, etc.) towards some proposition. As we will see, this claim will turn out to be useful below.

Then, generalization (13) may be reformulated as follows:

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[10] If the experiencer of the matrix clause were plural, the verb would be singular as well:

(i) a. *Preoccupava tutti che stesse piovendo da più di cinque giorni.*
Worried everyone that it had(subj) been raining for more than five days
'That it had been raining for more than five days worried everyone'.

b. *A tutti sembrava che Maria partisse il giorno dopo.*
To everyone seemed that Maria left(subj) the day after
'It seemed to everyone that Maria would have left on the following day'.

[11] Only Raposo (1985) discusses the examples involving a 'functional' verb carrying subjunctive morphology. He hypothesizes that in Romance languages a binding domain may be characterized in two ways: it can be the c-command domain of a subject, or the c-command domain of a "verbal operator". He includes among the verbal operator modal verbs, auxiliary verbs, the operator [+TENSE], which characterizes the complementizer of argument clauses whose verb has an independent time reference, i.e. indicative argument clauses. This hypothesis is able to predict generalization (13), but is not supported by independent evidence.

[12] See Belletti and Rizzi (1988).

(16) Coindexation between the matrix argument referring to the attitude bearer and the embedded subject is ruled out if the verb carrying subjunctive morphology is a full verb; it is allowed if the verb carrying subjunctive morphology is a functional verb and the full verb is non-finite.

Notice that generalization (16) is compatible with another set of data which seems to be problematic for existing theories on subjunctive obviation, namely sentences involving directive verbs – *to order*, *to persuade*, etc. These verbs differ from epistemic verbs in that they have adicity three. Thus, they have two individual arguments, and one propositional argument. Of the two individual argument, the first may be considered as the attitude bearer, provided that an order or a request expresses a certain sort of will. Hence, one expects that the null subject of the argument clause cannot be coindexed with it, but is free to corefer with the second individual argument. This expectation seems to be correct. Consider, for instance, the following sentence:

(17) *Gianni$_i$ chiese a Maria$_j$ che pro$_{*i/j}$ partisse presto*.
Gianni$_i$ asked to Maria that pro$_{*i/j}$ left(subj) soon
'Gianni asked Maria to leave soon'.

In sentence (17) *pro* cannot be coindexed with the argument referring to the attitude bearer, *Gianni*, although it can corefer with the argument referring to the addressee of the request, *Maria*[13]. Thus, generalization (16) is able to include example (17).

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[13] Notice that the interpretation of sentence (17) according to which *pro* is coindexed with *Maria*, is problematic for some of the mentioned theories.
As for the competition theories, the infinitive counterpart to sentence (17) is available:

(i) *Gianni$_i$ chiese a Maria$_j$ di PRO$_{i/j}$ partire*.
Gianni asked to Maria DI PRO leave(inf)
'Gianni asked Maria to leave'.

Notice that two interpretations are available for the above sentence (control shift – see Landau 2001): *Gianni* controls PRO; *Maria* controls PRO. The former interpretation is unavailable if the argument clause has a subjunctive verb. This is correctly predicted by competition theories. The second interpretation is available both if the argument clause has a verb in the subjunctive (cf. (17)), and if the ar-

Conclusively, given the generalization in (16), a theory for obviation should be able to answer the following questions:

(18) Why is coindexation ruled out between the subject of an argument clause whose lexical verb is subjunctive, and the argument referring to the attitude bearer?

4. Towards a hypothesis

Given the generalization in (18), the following *desiderata* for a hypothesis on obviation in subjunctive clauses arise:
- such an hypothesis should be able to explain why subjunctive, indicative and infinitive argument clauses are different with respect to the referential properties of their subject;
- it should be able to explain why full verbs and functional (modal, auxiliary, etc.) verbs are different with respect to the referential properties of the subject of a subjunctive clause;
- it should be able to explain why an argument why obviation involves only matrix arguments referring to the attitude holder.

4.1. Again on obviation and subjunctive mood

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gument clause has a verb in the infinitive, which is also the most natural alternative, although (17) is grammatical as well. Competition theories are not able to account for the availability of both the subjunctive and the infinitival argument clause. According to Picallo's (1985) the coindexation between *Maria* and *pro* in (17) should not be available, whereas the one between *Gianni* and *pro* should be, unless it was the case that *Maria* did not c-command *pro*. This is indeed what she stipulates.
As for those theories according to which the binding domain of pro is the whole sentences, coindexation should be excluded both between the matrix and the embedded subject and between the matrix indirect object and the embedded subject.
Moreover, another interpretation is available:

(ii) *Gianni$_i$ chiese a Maria$_j$ che pro$_{*i/j/k}$ partisse presto*.
Gianni asked to Maria that pro$_{*i/j/k}$ left(subj) soon
'Gianni asked Maria to leave soon'.

As for the first question, all the existing theories on subjunctive obviation based on the Binding Theory (Picallo 1985; Kempchinsky 1985, 1998; Raposo 1985; Rizzi 2000; Progovac 1994; Avrutin 1994; Avrutin and Babyonyshev 1997) claim that the interpretative properties of subjunctive, are responsible for obviation effects. Particularly, the embedded subjunctive is such that the event it refers to is evaluated with respect to time frame of the matrix predicate, but it is not with respect to the utterance time. Because of this property, the subjunctive mood is sometimes said to be an "anaphoric" mood (Picallo 1985).
Following Higginbotham (1995), Giorgi and Pianesi (2000, 2001) hypothesize that the mentioned property of embedded subjunctive can be formally characterized as follows: the temporal coordinates of the attitude episode (that is, the temporal coordinates of the attitude bearer: *Subject-*τ) are always represented in an embedded clause; the temporal coordinates of the speaker (*Speaker-*τ) are instead represented in an embedded clause only when a double access reading obtains – that is, in indicative embedded clauses. Particularly, they propose that the temporal coordinates of the subject of the attitude appear in the lower T projection, whereas the temporal coordinates of the speaker appear in the complementizer[14]:

(19) Indicative: V [$_{CP}$ *Speaker-*τ … [$_{TP}$ *Subject-*τ…
Subjunctive: V [$_{CP}$ … [$_{TP}$ *Subject-*τ…

4.2. Subjunctive vs. infinitive or finite vs. non-finite?

Let us go back to the basic paradigm, which I repeat here:

(20) a. *Gianni$_i$ sperava che pro$_{*i/j}$ partisse*.
Gianni hoped that pro$_{*i/j}$ left(subj)
'Gianni hoped that he left'.

b. *Gianni$_i$ sperava di PRO$_{i/*j}$ partire presto*.
Gianni$_i$ hoped DI PRO$_{i/*j}$ leave(inf) soon
'Gianni hoped to leave soon'.

[14] For alternative proposals on the syntactic representation of the speaker and the attitude bearer, see Speas (2004); see also Cinque's (1999) discussion on the highest functional heads – *speech act mood*, *evaluative mood*, and *evidential mood*.

c. *Gianni$_i$ sperava che pro$_{i/j}$ potesse partire il giorno dopo*.
Gianni$_i$ hoped that pro$_{i/j}$ was(subj) able to-leave the day after
'Gianni hoped that he was able to leave on the following day'.

As already observed, in sentences like (20) the verb carrying subjunctive morphology is a full verb; in sentences like (20) the verb carrying subjunctive morphology is a functional verb; in sentences like (20) the full verb is non-finite; the same hold for sentences like (20), in which the full verb is infinitive.
Let us suppose, then, that the presence of a non-finite form of a full verb is responsible for the coindexation between the matrix and the embedded subject both in (20) and in (20).
Notice that in example (20) coindexation is obligatory. Moreover the only available interpretation for sentence (20) is a *first-personal* (Castañeda 1966, 1968) or *de se* (Lewis 1979) interpretation. Let us consider the following example:

(21) *John thinks he is a war hero*.

By means of sentence (21) the speaker might say that John has a *de re* belief about a certain person who is John himself. But John might have two distinct thoughts: imagine that John is amnesiac; he might be reading about the deeds of a war hero, who is himself, actually, and exclaims: "this man is a war hero!", without realizing that it is him himself the person who he is talking about. The speaker might then tell what John said by means of sentence (21). She is aware of the identity of the war hero and coindexation between *John* and *he* would be adequate from her point of view. In another scenario, John consciously says about himself: "I am a war hero"; even in this case the speaker might tell what John said by means of sentence (21). Notice that even in this interpretation coindexation would occur, *from the point of view of the speaker*.
The former interpretation is *non de se*, the latter is *de se*, or *first-personal*.
Ambiguity of sentence (21) does not obtain when the embedded clause is infinitival:

(22) *John expects to win*.

By means of sentence (22) the speaker can only mean that John is perfectly aware that the person whom he has an expectation about is him himself. Then, PRO can only be interpreted *de se*.

As for sentences in (20), in (20) coindexation is not available; then the problem whether the sentence is ambiguous between the *de se* reading and the *non de se* reading does not arise. Sentence (20) is strictly *de se*. Finally, in sentence (20) coindexation is an option; but even under the coreferential interpretation the sentence can only be *de se*. Consider for instance the following sentences:

(23) a. *Gianni$_i$ sperava che pro$_i$ potesse vincere le elezioni.*
Gianni hoped that pro$_i$ could(subj) win the elections
'John hoped that he could win the elections'.

b. *Gianni$_i$ sperava che lui$_i$ potesse vincere le elezioni.*
Gianni hoped that he$_i$ could(subj) win the elections
'John hoped that he could win the elections'.

c. *Gianni sperava di PRO poter vincere le elezioni.*
Gianni hoped DI PRO can(inf) win(inf) the elections
'Gianni hoped to be able to win the elections'.

Sentence (23) and (23) might be appropriate in a scenario in which, Gianni say: "I hope to be able to win the elections". But they are not, whereas sentence (23) is, in a scenario in which Gianni says: "I hope this candidate will be able to win the elections", without realizing that the candidate he is referring to is him himself.

4.3. Non-finite moods and first-personal interpretation

Given the observations above, let us hypothesize that the same mechanism is responsible for the first-personal interpretation both if the complement clause has a subjunctive verb and if it has an infinitive verb.
In order to implement this hypothesis, I will resort Giorgi's (2004) account for the nature and distribution of long distance anaphora *proprio* in Italian.
It has been observed in the literature (see Chierchia 1989) that the long distance anaphor *proprio* exhibits the same properties as PRO in attitude contexts. Particularly, they are both subject oriented (i.e., oriented towards the attitude bearer, which does not serve necessarily as the grammatical subject of a sentence – compare examples (15)) and strictly first-personal.
Given this observation, Giorgi claims that the long distance anaphor *proprio* is the spell out of an implicit argument (in the sense of Higginbotham

1985, 1997; Williams 1987, 1989, 1994) that is θ-identified (in the sense of Higginbotham 1985) with the attitude holder[15].
Let us suppose that the same mechanism is responsible for the availability of the first-personal interpretation of sentences (20) and (20). This implies that both in sentence (20) and sentence (20) an implicit argument is θ-identified with the attitude bearer. Let us suppose that the external argument of a non-finite form may be considered as an implicit argument[16]. Then, the following hypothesis might be formulated:

(24) In an argument clause in which the coordinates of the speaker are not represented, if the subject of an embedded clause has to be identical to the attitude-bearer, then it must be an implicit argument.

Notice that the mechanism of θ-identification is local (Higginbotham 1985). The attitude holder, however, is someway present in the embedded clause – by means of its temporal coordinates, as Giorgi and Pianesi (2001) suggest, or by means of one of the highest functional projection (see note 14). Hence, θ-identification between an implicit argument and the attitude bearer can obtain within the embedded clause. Particularly, θ-identification is supposed to obtain under sisterhood (Higginbotham 1985), and unas-

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[15] An implicit argument can be defined as an open θ-position in a θ-grid, i.e. a θ-position that is not realized overtly by θ-marking (on implicit arguments, see Bhatt and Pancheva 2004; Brody and Manzini 1987; Chomsky 1986; Higginbotham 1985, 1997; Roeper 1987; Safir 1991; Williams 1987, 1989, 1994).
Higginbotham (1997) shows that implicit arguments can be involved in anaphoric relations. Take for instance the following example:

(i) self-starting (motor)

Higginbotham argues that *start* θ-marks neither an internal argument nor an external argument. This notwithstanding, the external argument can bind the internal argument; an available interpretation is indeed that a self-starting motor is a motor *x* such that *x* starts *x*. Given such an interpretation, an implicit anaphora is claimed to be involved.

[16] Thus, PRO should not be considered as a syntactic constituent, at last in attitude contexts, but an implicit argument – that is, an empty slot in a θ-grid. In this sense, Higginbotham (1997: 192) writes: "we may consider a theory according to which PRO is a syntactic reflex of control, rather than the controlled element itself; that is, PRO is selected to occur in certain configurations where control has already been established". The claim that PRO is an implicit argument, however, is not trivial and will be object of future research.

signed θ-roles are able to percolate to a dominating maximal projection until they are assigned (Williams 1987, 1989).

4.4. Some predictions

Given hypothesis (24), sentences (20) follow directly. In sentence (20) the subject of the subjunctive clause is not an implicit argument, though being phonetically unrealized. By definition, implicit arguments are devoid of any feature characterizing overt formatives, that is phonetic features, formal features and categorial features (Chomsky 1995). The pronominal *pro* is not devoid of these features: it enters indeed in agreement relations with the verb in the subjunctive:

(25) a. *Pro legge molti libri*.
Pro reads many books
'He/she reads a lot of books'.

b. *Pro leggono molti libri*.
Pro read many books
They read a lot of books.

Then, *pro* must have categorial and formal features, which are necessary in order for *pro* to agree with the verb. It follows that sentence (20) cannot be interpreted first-personally.
In sentence (20), finally, the subject of the argument clause has properties that are compatible with the ones of an implicit argument, since no features are detectable[17]. Hence, the first-personal interpretation is available.
Finally, let us consider sentence (20). Suppose that the following simplified structure is a viable representation of sentence (20):

(26) [**Gianni** sperava [che [**attitude bearer**] pro potesse [partire <**θ**> …

θ-identification

Notice that the external θ-role of the infinitive is not discharged via θ-marking, under the hypothesis we are exploring. Then, the external argu-

[17] Unless θ-roles are to be considered as features, as Hornstein (1999) does. See Landau (2002) for objections to this idea.

ment of the infinitive verb is an implicit argument. Accordingly, it can be θ-identified with the attitude bearer. Hence, the first-personal interpretation is expected to be available.
Moreover, the fact that pro is in the specifier of [AgrSP] predicts that the null subject of the subjunctive clause may refer to someone else than the attitude bearer. This should explain why sentence (20) is ambiguous between a coreferential reading and the disjoint one.

5. Conclusion

Hypothesis (24) seems to be able to account for the data discussed here. It also seems to be able to account for the complementary distribution of infinitive and subjunctive argument clauses, which turned out to be only partial, under the coreferential (or, more appropriately, first-personal) reading.
If the hypothesis worked out here were correct, it would follow that obviation in subjunctive clausal arguments would occur only apparently between the matrix argument referring to the attitude bearer and the embedded subject pro. Moreover, Binding Theory would not be involved in subjunctive obviation.
Rather, the impossibility of coindexation between the arguments involved in the phenomenon at issue would be a consequence of more general mechanisms, supported by independent evidence, which determine the first-personal interpretation of attitude reports.

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