Long Distance Anaphors and the Syntactic Representation of the Speaker∗

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1. Introduction

In this paper I’ll mostly consider the distribution of the Italian third person singular/plural possessive propio and of the Chinese reflexive ziji.¹ The main idea I’ll develop in this work is that the morphosyntactic characteristics determining at the interface level the temporal location of events also allow the identification of the antecedent of long distance anaphors. That is, temporal anchoring, or sequence of tense – henceforth, SOT – and the binding of long distance anaphors – henceforth, LDAs– are two facets of the same grammatical properties of the clause.

∗. I wish to thank Jim Higginbotham, Fabio Pianesi and Denis Delfitto for insightful discussion on many of the topics addressed here. I also thank Audrey Li for judgments and discussion about the Chinese data. This paper was presented in Japan at Tokyo National University and Nanzan University, and in The National Chiao Tung University in Taiwan. I wish to thank the audiences there, and Chris Tancredi, Mamoru Saito and Luther Liu for having provided me with this possibility, as well as for their comments and suggestions. This paper was written while I was visiting the Department of Linguistics at UCLA. I wish to thank the Head of the Department, Tim Stowell, and all the people in the Psycho-lab, in particular Susie Curtiss and Nina Hyams, for having granted me this opportunity.

¹. Proprio is a possessive item roughly meaning own. Since however the parallelism with own is only partial, I’ll adopt a more neutral gloss and translate it as self’s. For ziji I’ll use the glosses given by the authors of the examples. On a comparison between proprio and own, see Safir (2003c). See also Higginbotham (1985).
This proposal is not only motivated by the well-known interaction between verbal forms – for instance subjunctive/infinitive vs. indicative – and the distributional properties of LDAs, but also by the important role played by subjects in both domains. The reason for the choice of languages is that they are located at the opposite extremes with respect to morphosyntactic properties and Sequence of Tense in particular. Italian in fact has a clear main / subordinate clause distinction with respect to temporal and modal dependencies, exploiting the indicative/ subjunctive paradigm. Chinese, on the contrary, lacks any morphological temporal and modal marking, relying almost exclusively on aspectual morphemes. This peculiarity obviously represents the main challenge for a SOT-based theory of LDAs.

This paper is organized as follows. In the first section I introduce the problems connected with subject orientation and provide a brief review of the previous approaches, trying to outline advantages and disadvantages of the various proposals. I’ll also discuss some additional empirical facts, which should be taken into account by any adequate theory of LDAs. In the second section, I sketch the hypothesis, providing the necessary background and discussing the evidence which is motivating it. In the next one I work it out, showing what the predictions are in the various cases. In the fourth, I compare the Italian data with the Chinese ones. I try to show that the two languages, though very different from each other as far as their morphosyntactic properties are concerned, can be accounted for by means of the same theoretical proposal, without resorting to ad hoc parameterization hypotheses. Finally, in the fifth, I speculate on the nature of LD binding and logophoricity, providing suggestions for future research. I’ll show that this account reduces many phenomena, often attributed to logophoric conditions – or discourse grammar – to sentence grammar.

1. On the subject orientation and other relevant facts

1.1. The subject as a LDA antecedent

What counts as a long distance anaphor? I would like to remain somewhat vague with respect to a precise definition of LDAs. In this work I will only provide the minimal machinery to ensure that proprio and ziji are properly classified, but I’ll avoid the issue
in itself and will not consider the questions related to the typological classification of anaphors.2

An anaphor is widely assumed to be an inherently dependent form – i.e., a form that cannot be used for deixis.3 Since Chomsky (1981), these elements have been taken to obey principle A of the Binding Theory, which I report as follows, ignoring many complex and intriguing questions related to the definitions:4

(1) Principle A of the BT:
   a) An anaphor is bound in domain D
   b) A Domain D is the minimal domain of an accessible SUBJECT

However, many items, though inherently dependent, do not obey principle A of the BT in that they can take an antecedent outside the local domain. For this reason, they are referred to in the literature as long distance anaphors.5

2. For a discussion about the syntactic nature of the notions of pronoun and anaphor, see Reuland (2001a). See also Safir (1996, 2003a, 2003b, 2003c) and Anagnostopoulou & Everaert (1999). I refer the reader to them and references cited there. See also the introduction to the collection of essays on long distance reflexives, by Cole, Hermon & Huang (2001) about the state of the art in the topic.

3. An anaphor can never be used for accompanying an ostensive gesture, even when the individual picked out in that way is a familiar one. One could exclaim, pointing to a familiar individual, “Him!”, but not “Himself!” See Safir (2003c).

4. Some questions concern the exact definitions of Domain D, and what counts as an accessible SUBJECT, and what a SUBJECT is, as opposed to a (lower case) “subject”. The topic has only been sporadically addressed in the last ten years. It seems to me that the general feeling is that such notions should be derived from more principled ones and not just stated as primitives, in the spirit of Chomsky’s (1995) minimalist view. See Reinhart & Reuland (1993) and Williams (1989, 1994) for proposals aiming at a reduction of clausal binding to co-argumentality and, in general, to argument structure.

5. Some scholars derive the local and non-local nature of anaphors from their morphological properties, in terms of feature specification, with their binding options. See for instance Pica (1987) and Burzio (1991). See also section 3 below.
Neither the Italian possessive *proprio*, nor the Chinese *ziji* can be used for deixis. Therefore, they both pass the test for anaphoricity. Consider for instance the following example in Italian:

(2) *Questo è il proprio libro! (indicando Gianni)*
   
   This is self’s book! (pointing to Gianni)

However, they can appear in contexts which violate principle A of the BT, because they can select their antecedent outside domain D. Consider the following sentences, which show a contrast between the possessive anaphor *proprio* and the clause bound, morphologically complex anaphor *se stesso* (himself).

(3) Quel dittatore, pensava che i libri di storia avrebbero parlato a lungo delle proprie gesta.
   That dictator thought that the books of history would talk for a long time about self’s deeds

(4) *Quel dittatore pensava che i libri di storia avrebbero lodato a lungo se stesso.*
   That dictator thought that the books of history would have praised for a long time himself

Let me turn now to subject orientation. As I said above, it is a well-known fact that LDAs are subject oriented, in that in general they cannot be dependent upon items playing other grammatical functions in the sentence. Sentence (5) illustrates this point:

(5) Gianni ha informato Maria che la propria casa era in fiamme.
   Gianni informed Maria that self’s house was on flame

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6. Chinese *ziji* can be used as an indexical to refer to the speaker. I’ll discuss the issue in section 4 below.

7. Coindexation is to be understood as a mere illustrative device and the theory I’m going to propose does not need any device of this sort. See Reuland (2001a) for a discussion of the notion of coindexing in the minimalist perspective.
The only possible antecedent for the anaphor is the subject, as opposed to other arguments, such as the object. Notice that both subject and object c-command the anaphor.

However, LDAs are not always subject oriented, in that there are some cases in which they do not exhibit subject orientation, as for instance with psych-verbs. This point will turn out to be a relevant observation, which I will consider later.

Subject orientation is not a “natural” property of binding relations, given that in other binding cases it does not arise. Clause bound anaphors are not subject oriented, neither in Italian nor in English:

(6) Una lunga terapia psicoanalitica ha restituito Maria a se stessa.

(7) A long psychoanalytic therapy brought back Maria to herself.

Analogously, bound pronouns are not subject oriented, neither in Italian nor in English:  

(8) Ho informato ogni studente, che il suo compito era stato corretto.

(9) I informed every student that his homework had been corrected.

In sentences (8) and (9) the pronoun is bound by the quantified nominal ogni studente (every student) in object position. Consider further that, when clause bound, proprio is not necessarily coindexed with a subject:

(10) Ho presentato gli studenti ai propri professori

I introduced the students to self’s professors

Moreover, it has been observed that even in languages like English, where it is usually assumed that all anaphors are clause bound, it can happen that under special conditions an otherwise clause bound anaphor finds its antecedent outside the sentence, escaping Principle A of the BT. I’ll call this phenomenon LD binding residue. Interestingly,

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8. I’ll address in section 2.2 the question of the difference between anaphors and variables, both distributionally and interpretively.
residual LDAs also exhibit subject orientation. This can be observed with the reciprocal each other, as illustrated by the following examples:  

(11) The boys told the girls that each other’s pictures were on sale.

This sentence cannot mean that the boys told one of the girls that the picture of the other was on sale – i.e., the object is not available as an antecedent. On the contrary, such a meaning is available, as far the boys are concerned. When clause bound, each other is not subject oriented:

(12) The boys introduced the girls to each other.

This sentence can mean that the boys introduced each of the girls to the others. Notice that in the example (11), the reciprocal is embedded inside a subject. One might propose, along the lines of Giorgi (1983), that the case in question does not fall under principle A of the BT. Depending upon the notion of accessible SUBJECT, in fact, in can be argued that the identification of the domain D in these cases is impossible, or, better to say, vacuous. As a matter of fact, an anaphor in subject position – or inside a subject – behaves like a LD one.  

Putting aside the theoretical questions, for the moment, it can be concluded that subject orientation is not a lexical property – i.e. a property of certain lexical items per se. On the contrary, it turns out to be a property of reflexive pronouns, and of English reciprocals, in certain contexts, when certain special conditions are met. The question I want to address here is the following: what are these special conditions? Or, in other words: which are the syntactic and semantic properties of subject-oriented LDAs? Let me also briefly remark that approaches simply aiming at enlarging the domain of application of principle A of the Binding Theory cannot explain subject orientation, unless by means of an ad hoc constraint, explicitly excluding non-subjects from the range of possible antecedents. To simply enlarge the binding domain to include the

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9. I’m ignoring here some important problems related to the specific way each other is interpreted. On this issue, see Higginbotham (1980) and Heim, Lasnik & May (1991a; 1991b).

10. See section 4 for further discussion. On Chinese ziji in subject position, see Huang & Liu (2001, section 4.2).
superordinate clause(s), in fact, would also necessarily include objects, which therefore would be available for antecedenthood. Consequently, the correct question should not only concern the nature and the properties of the binding domain, but also the peculiar choice of antecedents.

1.2. Previous analyses

1.2.1. LDAs move

One of the most influential proposals is the one originally discussed in Cole, Hermon & Sung (1990) – and subsequently developed in various papers (Cole & Sung, 1994; Cole & Wang, 1996; Cole & Hermon, 1998; Cole, Hermon & Lee, 2001). In their works, the authors accounted for subject orientation by means of covert movement. Several versions of this proposal have been since then discussed by other scholars, each with its peculiar advantages or disadvantages. In the brief review that follows, I’ll abstract away from the details and consider only the major points that might be taken to characterize the movement theory in general.

Starting from an observation by Pica (1987; but see also Burzio 1991, who elaborates on previous unpublished material, dated 1986), LDAs are supposed to move out of the VP at LF. The landing site is Inflection (or T, or variants thereof). They have to move because they are somehow defective from the point of view of their feature specification. It is assumed that, in order to be interpreted, these anaphors must end up in a local configuration with an item providing them with the necessary features. Due to the syntactic location of the landing site, only the subject qualifies as a possible antecedent, given that it is the only nominal phrase c-commanding the anaphor. This way subject orientation is accounted for.

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12. Notice that the theoretical proposal developed by Huang & Liu (2001) is ultimately based on covert movement, but it also takes into account important semantic observations, therefore we are not going to consider it here. Cole, Hermon & Lee (2001) in their analysis of two different Chinese dialects adopt a broader view, which they call logophoric, in order to account for some of the differences observed between the two languages.
The shortcoming of this proposal is that LDAs are predicted to be always and only subject oriented. All exceptions must be considered as spurious cases, to be accounted for by means of other – more or less ad hoc – hypotheses. Chinese ziezi represents a prototypical case of lack of feature specification. Ziezi in fact is not endowed with any feature at all, neither number, nor gender, nor person. As a consequence, it must move at LF.

Furthermore, following Pica (1987), it is also assumed that anaphors can move only if they are heads, given that the relevant movement is a head-to-head one and the landing site is a head position (or adjoined to a head position). Therefore, a bi-morphemic anaphor like himself cannot move, because it would not qualify as a head. Analogously, the Italian anaphor se stesso and the Chinese complex anaphor ta-ziezi cannot move. It follows that the anaphors that cannot move must be clause bound, whereas the other ones are subject oriented.

This theory gave rise to a very interesting debate. One question that arises in connection with these proposals is what counts as enough as far as the feature specification is concerned. In other words, in what cases the feature endowment of an anaphor can be considered to be a defective one, so to force movement at LF? The problem is constituted by the fact that the feature properties differ across languages, and even in the same language anaphoric items might differ from each other. As an exemplification, proprio and ta-ziezi are both specified only for person. However proprio is long distance, whereas ta-ziezi is local.

The fact that LDAs are not sensitive to island configurations – whereas usually covert movement is – has been noted and discussed in the literature, as well as the observation that there is no overt movement corresponding to the covert LF movement of LDAs. These problems led to various adjustments of the movement proposal, and I’ll not comment on these points any further.13

An interesting question, which is certainly problematic for by the movement hypothesis, is constituted by the so-called blocking effect in Chinese.

In Chinese an intervening first or second person prevents the anaphor from being bound in a clause superordinate to the one containing the first or second person pronoun. The explanation provided by the movement hypothesis is that LF movement is cyclic and the anaphoric item must inherit the features it meets on its way up to the antecedent.

13 Several solutions to this question have been proposed in the literature. See for instance Huang and Tang (1991) and Safir (2003a).
According to this proposal, the features are picked up by the anaphor as soon as it enters the relevant configuration with the feature-endowed lexical item. As a consequence, the first potential antecedent assigns the relevant features to the anaphor and all the potential antecedents must agree, otherwise a feature mismatch would arise and the anaphor could not proceed any further.\(^{14}\)

In order to transmit its features to the anaphor, the blocking item must be a potential antecedent. Moreover, any potential antecedent will endow the anaphor with features and consequently prevent it from referring to something differently marked.

As pointed out by Huang and Liu (2001), however, in Chinese the blocking effect is asymmetrical and even non-potential binders may act as blockers. Both facts constitute a problem for the movement hypothesis. Consider the following example:\(^{15}\)

\[\text{(13) } \text{Zhangsan, danxin wo/ni j hui piping ziji/vi}^* j\]

\[\text{Zhangsan is worried that I/you might criticize myself/yourself/*him}\]

(Huang & Liu 2001, ex.11a)

Intervening first or second person pronouns in a potential antecedent position prevent the anaphor from referring to the higher third person Noun Phrase. However, first and second person block the anaphor, but not a third person: \(^{16}\)

\[^{14}\text{Another important question arising in this connection is constituted by the trigger for further movements of the anaphor, after the first cycle. If LDA movement in fact, is motivated by the necessity of inheriting features for the interpretive process, it is unclear why, once the features have been assigned, the anaphor can move further up.}\]

\[^{15}\text{For an analysis, see Huang (1984), Xu et al. (1994) and Huang & Liu (2001). See also the discussion of English and Chinese examples in Pollard & Sag (1992).}\]

\[^{16}\text{Huang & Liu (2001) notice that some sentences with an intervening third person antecedent might be controversial. Namely, some speakers might find it hard to pass over a third person intervening subject. Their own judgment, however, is that the sentences with an intervening third person are fully acceptable. Here for consistency, I’ll assume their range of data. Notice however, that some of the problems with these judgements might be due to the complex effects arising in Chinese with plural antecedents (see Huang & Liu 2001, sect. 3.2.4), if plurals are used in the relevant contexts. Furthermore, if the third person is deictically identified can also act as a blocker, as I’ll better discuss in a while. On the effects caused by an intervening third person, see also Tang (1989, fn.11 and fn.15).}\]
The grammaticality of example (14) illustrates the existence of an asymmetry in the blocking effect. Consider now the following example:

(15) Zhangsan, gaosu wo_j Lisi_k hen ziji_i/z/j/k
    Zhangsan told me that Lisi hated self    (Huang & Liu 2001, ex.8a)

LD ziji may be blocked by non-subjects that are not potential antecedents (Huang & Liu p. 161). To deal with these cases of LD binding, Cole, Hermon & Lee (2001) propose that they do not belong to sentence grammar, but must be accounted for in terms of logophoricity.

Another important problem for the movement approach is the systematic asymmetry with so-called psych-verbs (cf. Giorgi, 1983). Consider for instance the following cases:

(16) La propria moglie preoccupa molto Gianni.
    Self’s wife worries Gianni a lot

(17) *La propria moglie ha ucciso Gianni.
    Self’s wife murdered Gianni

Examples (16) and (17) show an asymmetry between regular transitive verbs, like kill, and psych-verbs such as worry. In the latter case, the object is available as an antecedent, but not in the former. The question, therefore, is in what ways a transitive verb like kill is different from an – apparently – transitive verb such as worry.

The problem concerning the structure of the VP projected by these verbs has been variously addressed in the literature (Belletti & Rizzi, 1988; Pesetsky, 1995), but no general theory of binding has incorporated these data in a systematic account. In general, it is claimed that the binding of anaphors in these cases is logophoric – i.e., ruled by principles that lie outside the scope of sentence grammar. However, in section 4 below, I’ll show that there is no need to set these cases aside.

Consider now the following cases of LD binding where the antecedent is not a subject, with the psych-verb worry:
(18) Che la propria figlia sia andata in campeggio da sola preoccupa molto Gianni.
That self’s daughter is camping by herself worries Gianni a lot

(19) Che tutti ambiscano al proprio incarico preoccupa molto il primo ministro.
That everybody aspires to self’s office worries the Prime Minister a lot

In sentence (18) the LDA is embedded in the subject position of a sentential clause; in example (19) the LDA appears in the object position of the subject clause. In both cases, the experiencer is available as an antecedent. However, a LDA embedded inside the experiencer cannot refer back to the subject:

(20) *Il primo ministro preoccupa molto coloro che ambiscono al proprio incarico.
The Prime Minister worries a lot those who wish self’s office

(21) Coloro che ambiscono al proprio incarico preoccupano molto il primo ministro.
Those who wish self’s office worry the Prime Minister a lot

The example in (20) contrasts minimally with (21). The whole pattern is difficult to explain on the basis of movement of the anaphor to I (or to equivalent positions). The sentences in (18), (19) and (21), in fact, could not be derived in this way, since movement of the anaphor to I would not locate it any closer to its antecedent. Conversely, (20) is predicted by such a theory to be good. The same holds for the contrast between (16) and (17): only a psych-verb allows backward binding. Notice that in this case binding is not strictly speaking long-distance, because the noun phrase containing proprio is not embedded in a clause different from the one containing the antecedent. The fact that the example in (20) is unacceptable, is a strong argument in favor of the idea that psych-verb binding should be subsumed under a theory of LD binding. Let’s suppose, in fact, pursuing in a way the line of thought put forward by Cole, Hermon & Lee (2001), that in certain cases a purely syntactic theory ought to be supplemented by logophoric considerations.17 The claim that other considerations, based on theories of logophoric anaphora, could account for the grammaticality of (18)

17. Notice that Cole, Hermon & Lee (2001) propose this solution for some other cases and not for the experiencer problem, for which they might have other solutions of which I’m not aware of.
and (19), in fact, could still not explain the impossibility of (20), which would be predicted grammatical by the movement account. Another important consideration is constituted by subcommand cases In Chinese a specifier of an inanimate potential antecedent can act as the actual antecedent (cf. Huang & Liu 2001, for a discussion of Chinese examples). The idea proposed by the movement theory is that in a language with no visible agreement features, only the features of an animate subject – or, in these cases, of a sub-subject – can be represented in I, or AGR. However, as I’ll better illustrate below in section 4, this property can be observed also in a language like Italian, which certainly does not lack of visible features. In particular, sub-command is possible when the antecedent is an experiencer, not in agreement with the verb – namely, a non-subject one. Consider the following examples:  

(22) La propria salute turba i sogni di Gianni,
   Self’s health disturbs Gianni’s dream

(23) Che la propria figlia sia andata in campeggio da sola turba i sogni di Gianni,
   That self’s daughter went to camp by herself, disturbs Gianni’s dreams a lot

It would be desirable for this piece of evidence as well to follow from a theory of LD binding taking into account the distribution of anaphors in the contexts created by the psych-verbs.  

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18. In Italian, sub-command is otherwise not possible, neither with clause bound proprio, nor with the LD one:
   
   (i) I sogni di Gianni, provocarono il suo/ *proprio, risveglio improvviso.
       Gianni’s dreams caused his/self’s sudden awakening
   
   (ii) La biografia di quello scienziato, rivelò al pubblico che le sue/ *proprie, scoperte erano dei plagi.
       The biography of that scientist revealed to the public that his/self’s discoveries were imitations

19. Huang & Liu (2001) propose that the sub-command cases pertain only to syntactic binding and not to the logophoric one, which in their terminology refers to LD binding. In what follows I’ll argue for the opposite view – namely, that sub-command pertains to a theory of LDAs. See section 4 for extensive discussion.
1.2.2. LDAs are logophors

The second important theoretical proposal to account for subject orientation is the so-called logophoric theory. Sells’ (1987) idea is that the subject, but not the object, plays an important function in the discourse. On the basis of the discourse representation proposed by Kamp (1984), Sells suggests three ways in which a certain item can be prominent with respect to the other ones: it can be a source, a self, or a pivot. A LDA is ruled by logophoric principles and is therefore subject oriented, since the grammatical subject usually coincides with the logophoric prominent role in the sentence. The proposal I’m going to sketch below owes much to logophoric theories. However, instead of placing the burden of the process on discourse grammar, externally to sentence grammar, I’ll build into sentence grammar some principles usually attributed to discourse.\(^\text{20}\)

The logophor theory has been discussed and adopted with various provisos by many authors. I’ll summarize here the discussion provided by Cole Hermon & Lee (2001). They claim that if stated in a simplistic way this theory does not make the correct predictions. In several cases, in fact, the antecedent is not the element bearing the prominent role in the discourse, but on the contrary it appears to be a subject devoid of any particular prominence in the context. Cole, Hermon & Lee (2001, exx. (3) and (4)), discuss the following cases:

(24) Zhangsan\(_i\) wangji le Lisi\(_j\) hen taoyan ziji\(_{ij}\) de gege
Zhangsan\(_i\), forget perf Lisi\(_j\) very hate self’s brother
Zhangsan\(_i\), forgot that Lisi\(_j\) hates his/hi own\(_j\) brother

(25) Zhangsan\(_i\), bu xiao de Lis\(_j\) hen taoyan ziji\(_{ij}\)
Zhangsan\(_i\), not aware Lisi\(_j\) very hate self
Zhangsan\(_i\), was not aware that Lisi\(_j\) hates him\(_{ij}\)

They argue that the matrix subject qualifies as an antecedent, without being either a Source, or a Self, in Sells’ (1987) sense. There is also a discussion of similar points in\(^\text{20}\). The same move has been proposed by several other authors for other questions, such as the temporal interpretation (Higginbotham 1995, Giorgi & Pianesi 2001) and the interpretation of pronouns (Schlenker, 2003) and PRO (Higginbotham 2003).
Pollard and Xue (2001). They claim as well that the *pure* logophoric approach cannot successfully account for the variety of phenomena observed in LD binding. Finally Reinhart & Reuland (1991) introduced the notion of logophoricity in connection with similar binding phenomena, even if under a rather different perspective. Their view is that all the binding facts which cannot follow from a theory of binding based on co-argumentality and *chains*, should be accounted for by a theory of logophoricity. I won’t address the issue any further. I’ll try to show in this paper that at least some of the occurrences usually explained by means of logophoricity can be traced back to other notions, having to do with sentence grammar rather than discourse grammar. One of the main goals of this work is to illustrate how contextual elements have a morphosyntactic representation in sentential grammar.\footnote{1}{Hellan (1991) proposes a bipartition between LD anaphors and locally bound ones. He argues that LDAs obey a *containment* condition, whereas the locally bound ones obey a *connectedness* condition. LDAs are related to their antecedent by means of predication or logophoricity. Locally bound anaphors are basically bound by a co-argument. Hellan’s distinction is descriptively very similar to the one I’m arguing for in this work.}

\subsection{1.2.3. LDAs are de se anaphors}

The third proposal is based on interpretive properties. Chierchia (1989) for Italian, Pan (1998, 2001) and Huang & Liu (2001) for Chinese, resort to the notion of *de se interpretation*, based on the discussion by Castañeda (1966).\footnote{2}{See also Giorgi (2004a) for a detailed discussion of the interpretive properties of LDAs.} Let’s consider the well-known examples in (26):

\begin{enumerate}
\item John thinks that he is a war hero.
\end{enumerate}

The speaker might mean that John has a *de re* belief about a certain person which is John himself – namely, that that person is a war hero. However, there are two distinct thoughts that might be in John’s mind, both of which can be appropriately reported by means of (26). John might be amnesiac and therefore, when reading about himself, he might say, “Oh, this guy is a war hero!” without realizing that the hero is him himself. The speaker might then report what he said by
means of sentence (26). Notice that the speaker is aware of the identity of the war hero, and therefore from the speaker’s point of view coreference between the pronoun and the matrix subject is perfectly appropriate. In another scenario, John might simply have a conscious belief about himself: “I’m a war hero”, which the speaker might report by means of (26). This one is the de se – or first personal – reading. The ambiguity disappears if the sentence contains an emphatic pronoun, or a PRO structure:

(27) John thinks that he himself is a war hero.

(28) John expects himself to win.

(29) John expects to win.

In these cases, the only appropriate reading is the one in which John is perfectly aware of his own identity.23 Chierchia proposes that proprio (self’s) exhibits the same property. He considers in fact Kaplan’s (1979- reported in the references as Kaplan 1989) example:

(30) John believes that his pants are on fire

The relevant meaning is the one in which the pronoun refers to John. This sentence can be first-personal. However, it can also be appropriate in a situation in which John is not aware of the fact that the person whose pants are on fire is he himself. The Italian equivalent containing a pronoun has the same property:

(31) Gianni, pensa che i suoi, pantaloni siano in fiamme.

Gianni thinks that his pants are on fire

Conversely, the sentence containing the LDA is not ambiguous:

(32) Gianni, pensa che i propri, pantaloni siano in fiamme.

Gianni thinks that self’s pants are on fire

23. See the extensive discussion provided by Higginbotham (2003).
The example (32) is only first-personal. Following this line of thought it might be argued that LDAs are subject oriented because only the subject can give rise to the appropriate first personal reading. Objects are excluded because they are not compatible with the *de se* requirement of the anaphor. Consider the following example:

(33) Gianni, ha informato Maria che i propri pantaloni sono in fiamme.

Gianni informed Maria that self’s pants are on fire.

In (33) the only one which can be said to have a first personal belief is *Gianni*, and not *Maria*.

However, in order to obtain the correct distribution, one has to claim that the anaphor has in itself, as a lexical property, the requirement of being interpreted *de se*. Furthermore, the same should hold of the emphatic pronoun and PRO.

This account faces the following problems. An emphatic pronoun can refer also to an object, in which case no first personal reading obtains:

(34) I informed Bill that he himself was selected by the committee.

The same holds of object control:

(35) John ordered Mary, PRO to leave.

In neither case is the item in question ruled out. Simply, the interpretation assigned to the emphatic pronoun and to PRO is not a first-personal one. Furthermore, when clause bound, *proprio* is not subject oriented:

(36) Ho convinto Maria del proprio valore.

I convinced Maria of self’s value

Therefore, it is not clear why, given the existence of a non-*de se proprio*, the LDA in (32) cannot be appropriate in a non-*de se* scenario. I would like to explore the view according to which the fact that *proprio* selects the *de se* reading is not the *cause* of its subject orientation, but an *effect* due to other properties. On the other hand, the peculiar reading of these items in these contexts has to be addressed by any theory dealing with LD binding.
There is finally another piece of evidence that I would like to discuss in this connection. Subject orientation is usually a sharp judgement, on which speakers usually agree – namely, coreference with an object, as in (33), is considered ungrammatical by all speakers. On the contrary, for some speakers – even if not for everybody – there is no contrast between the sentences (37) and (38):

(37) La sventurata fanciulla riteneva che il proprio fidanzato fosse un gentiluomo.
    The unhappy young woman believed that self’s sweetheart was a gentleman

(38) La sventurata fanciulla riteneva che il proprio assassino fosse un gentiluomo.
    The unhappy young woman believed that self’s murderer was a gentleman

Only (37) can be truly first personal. Some speakers therefore do behave accordingly to Chierchia’s prediction, rejecting (38), but other ones, myself included, do not. Still, sentences (37) and (38) both sharply contrast, for all speakers, with (39):

(39) *Ho informato la sventurata fanciulla che il proprio fidanzato non era un gentiluomo.
    I informed the unhappy young woman that self’s sweetheart was not a gentleman

Even the speakers who tend to reject (38) find (39) much worse.

The generalization, therefore, could be stated as follows: when possible, the LDA proprio is unambiguously interpreted first-personally. For some speaker, if it is not possible to assign it the first-personal interpretation, the sentence becomes marginal, for other ones, it is still acceptable.\(^{24}\)

If this is the case, then it is necessary to look elsewhere to explain subject orientation.\(^{25}\)

\(^{24}\) See Giorgi (2004a) for an analysis of these cases together with the near-reflexive readings.

1.3. Two properties of LADs

1.3.1. The Verbal blocking effect

LDAs show sensitivity to the distinction subjunctive/infinitive vs. indicative. In languages having a mood distinction, the binding domain of a LDA is usually defined by an indicative mood, whereas a subjunctive/infinitive can be crossed over. I’ll call this property ‘verbal’ blocking effect, to distinguish it from the blocking effect of Chinese, which is mostly due to the presence of nominal elements.\(^{26}\)

As in the case of subject orientation, this one is not a property of binding \textit{per se}. Clause bound anaphors do not exhibit this property – namely, they can be found indifferently in subjunctive and indicative clauses, without giving rise to any special effect. Analogously, bound pronouns do not share this characteristic: the mood distinction does not have any effect on their distribution.

\begin{itemize}
\item[(40)] *Quel dittatore, ha detto che i notiziari televisivi hanno parlato a lungo delle proprie gesta. 
\hspace{5cm} That dictator said that the TV news programs talked(Ind) for a long time about self’s deeds
\item[(41)] *Quel dittatore, ha detto che i notiziari televisivi parleranno a lungo delle proprie gesta.
\hspace{5cm} That dictator said that the TV news programs will(ind) talk a lot about self’s deeds
\item[(42)] Quel dittatore, spera che i notiziari televisivi parlino a lungo delle proprie gesta.
\hspace{5cm} That dictator hopes that TV news programs will talk (SUBJ) for a long time about self’s deed
\item[(43)] Quel dittatore, ha detto che il primo ministro era convinto che i notiziari televisivi avessero parlato a lungo delle proprie gesta.
\hspace{5cm} That dictator said that the Prime Minister was(IND) convinced that the TV news program had(SUBJ) talked a lot about self’s deeds
\end{itemize}

\(^{26}\). This question has been extensively investigated for Icelandic, see, among the others, Maling (1984; 1990). Reuland and Sigurjónsdóttir (1997) however argue that infinitival sentences are crucially different from subjunctive ones.
Sentences (40) - (43) show that the main verb of the embedded clause must be a subjunctive, and that an indicative prevents the anaphor from looking any further. This fact could be captured by the movement proposal, by claiming that subjunctive/indicative is a condition to be met in order for a LDA to move (see however, Progovach 1992). It is less clear how the frameworks inspired to a logophoric theory and to a *de se* approach could capture it.

Notice however that in Italian there is also a mild ‘nominal’ blocking effect:

(44) Gianni pensa che tutti siano innamorati della propria moglie.
    Gianni believes that everybody is in love with self’s wife

(45) Gianni crede che Mario sia innamorato della propria moglie.
    Gianni believes that Mario is in love with self’s wife

(46) ?*Gianni crede che tu sia innamorato della propria moglie.
    Gianni believes that you are in love with self’s wife

(47) ?*Gianni crede che io sia innamorato della propria moglie.
    Gianni believes that I am in love with self’s wife

The sentences with a plural or singular third person intervening nominal – cf. exx. (44) and (45) – contrast with the ones with an intervening first or second person pronoun – cf. exx. (46) and (47).

As briefly discussed above, the presence of the (strong) blocking effect in Chinese is usually considered due to its lack of verbal agreement. For instance, Cole & Sung, (1994) and Cole & Wang (1996), *inter alia*, propose that there is a typological correlation between the lack of agreement and the blocking effect. According to this proposals, the blocking effect should exist only in Chinese-like languages, whereas it should be absent in Italian-like ones.

An adequate theory of LD binding should therefore both explain what’s the nature of the blocking effect –verbal and nominal – and why the nominal one is less strong, though existing, in Italian-like languages.
1.3.2. LDAs in adverbial clauses

Another observation concerns the peculiar distribution of anaphors in adverbial clauses. This effect has been observed in many languages with LDAs and was described both for Italian and for Icelandic. Consider for instance the following example:

(48) Il primo ministro, sperava che il dittatore, partisse prima che i rivoluzionari sequestrassero il proprio, patrimonio.

The Prime Minister hoped that the dictator left before the revolutionaries sequestered self’s patrimony.

In this sentence, the anaphor has to skip the first available subject, and can refer only to the subject of the higher clause. Why is that subject unavailable as an an antecedent? The question is an interesting one, because the structural syntactic conditions for antecedenthood – i.e., c-command – seem to be met by both nominals, but only one qualifies as an antecedent. 27

2. The hypothesis

Let me summarize the main points I’ll develop in this section. I’ll argue that the properties of LD binding can be accounted for by resorting to the same machinery operating with temporal anchoring. In particular I’ll adopt Giorgi and Pianesi’s (2001, 2003a, 2003b) theory of SOT, which I’ll briefly outline below. I’ll show that the verbal – Italian-like – and nominal – Chinese-like – blocking effects with LDAs arise when the speaker’s coordinate is syntactically represented in the clause. The presence of the speaker’s coordinate is also taken by Giorgi and Pianesi to give rise to the Double Access Reading effect and I’ll argue that the same syntactic mechanism is responsible

27. A very similar set of facts holds for Icelandic. See Maling (1990), Tráinsson (1990), Sigurðsson (1990) and Tráinsson (1991). According to these scholars, the same set of properties characterizing LDAs in Italian can be taken to characterize the Icelandic ones, abstracting from the differences between the languages. I am not going to discuss Icelandic as well, but it seems to me that what I’ll propose in this work can be extended to the Icelandic cases as well.
for both sets of phenomena. This way, I’ll reduce LD binding to independently motivated syntactic devices.

Why is LD binding reducible to SOT? I’ll argue that this is due to the peculiar nature of LDAs. I’ll propose that a LDA is the spell-out of an unsaturated position and I’ll show that as a consequence of this fact it is subject to the same constraints which, at the syntax/semantics interface, rule the interpretation of events.

I’ll also show that many phenomena often attributed to discourse grammar – and hence dubbed as *logophoric* – can be predicted and reduced to the principles of sentence grammar and local binding sketched here.

### 2.1. Introducing the hypothesis

In this section I’m going to illustrate briefly the version of sequence of tense proposed in Giorgi & Pianesi (2001, 2003a; 2003b). The proposal has been named Generalized Double Access Reading – Generalized DAR from now on.

As a first step, let me illustrate what the DAR is. Consider the following examples, in Italian and English:

(49) Gianni ha detto che Maria è incinta.

(50) Gianni said that Mary is pregnant.

The meaning of this sentence is that the state of pregnancy must stretch from the time of Gianni’s saying it to the present moment – i.e., the state of Maria being pregnant must hold at both times. The embedded present tense is interpreted as expressing simultaneity both with respect to the event of the main clause, the *saying* episode, and with respect to the time of the utterance event. Notice that this is not a universal property, given that it holds only in some languages, such as Italian and English, but it does not hold in other ones, such as for instance, Japanese, Chinese, and Russian.

Giorgi & Pianesi propose that the DAR is not a property restricted to the present tense, but that it also holds of the embedded past and the embedded future – hence, they name it Generalized DAR:28

28. Abusch (1997) and Stowell (1996), on the contrary, argue in favor of limiting the DAR to the present tense.
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(51) Gianni ha detto che Maria ha telefonato.

(52) Gianni said that Maria called.

(53) Gianni ha detto che Maria telefonerà.

(54) Gianni said that Maria will call.

In examples (51) and (52) the embedded event is in fact interpreted as past both with respect to now – the utterance event – and with respect to the matrix saying event. Analogously, The embedded event in (53) and (54) is future both with respect to the matrix saying episode and with respect to now – i.e., the utterance time. In other words, the embedded eventuality, in order to be located in time, accesses both the utterance time and to the time of the matrix event.

The point relevant for my discussion concerns the way the temporal interpretation is achieved. Giorgi & Pianesi propose that the Interpreted Logical Form (ILF, see Larson & Segal 1995), on which the temporal interpretation takes place, in these cases contains both the temporal coordinate of the speaker and the one of the bearer of the attitude – which in most cases is the superordinate subject.

With respect to the coordinate of the bearer of the attitude, the authors partially follow a proposal by Higginbotham (1995). He argues that by means of tense, thought contents make room for reference to their own episode (tensed thoughts) and that therefore the matrix episode must be represented in the embedded clause. According to Giorgi and Pianesi, therefore, the temporal anchoring of the embedded event to the matrix one amounts to the fact that the ILF of the embedded clause contains a temporal relation holding between the event of the embedded clause, and that of the embedding one. The temporal coordinates of the superordinate subject appear in the lower T projection.

With respect to the temporal speaker’s coordinate, Giorgi and Pianesi (1997; 2004) discuss a split-C framework according to which – as far as the temporal relations are concerned – two distinct complementizers must be distinguished in embedded clauses.29 They identified a lower one, called MOOD, related to the presence of an embedded

29. The positions in the Complementizer layer might be more numerous than that. See Rizzi (1997). I focus here only on the positions involved in the temporal anchoring process.
subjunctive verb, and C, the higher one, which roughly speaking – but see below for a more detailed discussion – appears with the indicative verbal forms. In Giorgi and Pianesi (2004) a strict relationship between the DAR and the higher complementizer C is proposed: the DAR is possible iff C is projected (irrespectively of the tense chosen). As I said above, C is associated with the speaker-oriented assignment sequence – namely, the temporal coordinate of the speaker is represented there – and is endowed with temporal features (τ-features) entering a relationship with those of the embedded T, either by movement or by matching. When the ILF for the embedded clause is computed and the interpretive contribution of tense is spelled out, the eventive variable ends up being the same in C and in T, getting therefore a double evaluation. It is evaluated with respect to the bearer of attitude’s coordinate – syntactically represented in T – and the speaker’s coordinate – syntactically represented in C. This proposal accounts for the peculiar semantics of the DAR and for the properties of indicative clauses vs. the subjunctive ones.30 Crucially, however, the distribution of an embedded subjunctive is ruled by a peculiar set of principles, different from the indicative ones. Consider the following paradigm:

(55) Gianni crede che Maria sia /*fosse intelligente.
    Gianni believes that Maria is (SUBJ) / was (SUBJ) intelligent

(56) Gianni credeva che Maria fosse/*sia intelligente.
    Gianni believed that Maria was (SUBJ) / is (SUBJ) intelligent

Simplifying somehow, in these examples, the choice of the subordinate tense depends solely on the tense of the superordinate clause. If a present tense appears in the matrix clause, then a present subjunctive must appear in the subordinate one, and a past form is ruled out. The opposite holds if the matrix clause contains a past form. The subordinate clause as well must feature a past form. The interpretation of the embedded event is, if

30. Giorgi and Pianesi (2004) also discuss the subjunctive clauses embedded under a verb belonging to the ipotizzare (hypothesize) class, which strongly support their view. For further discussion, I refer the reader to their paper and references cited there.
not otherwise specified, a simultaneous one – i.e., the embedded eventuality holds at the same time as the matrix one. Consider for instance the following example:

(57) Gianni credeva che Maria partisse oggi/ieri/domani.

Gianni believed that Maria left(PAST SUBJ) today/yesterday/tomorrow

The embedded verbal form, though grammatically past, is compatible with all possible temporal references. In other words, the presence of a present vs. a past subjunctive in an embedded clause depends, at least in the cases (55)-(57), on the tense of the superordinate clause and can therefore be considered a morphological agreement phenomenon. As a consequence, no question arises in connection to the DAR, given that no temporal relation must be independently interpreted.

The generalization concerning the distribution of LDAs in Italian is the following: whenever the speakers coordinates are represented in the embedded clause, and the DAR obtains, then the anaphor cannot “go beyond” that clause. In other words, the speaker’s coordinate delimits the domain of LD binding. Moreover, the bearer of the attituded – in most cases coinciding with the superordinate subject – is Consider again the subjunctive/indicative contrast given above, in exx. (40)-(43), reproduced here for simplicity:

(58) *Quel dittatore ha detto che i notiziari televisivi hanno parlato a lungo delle proprie gesta.

That dictator said that the TV news programs talked(PAST-IND) for a long time about self’s deeds

31. In Giorgi & Pianesi (1997, 2004) the hypothesis that subjunctive mood in embedded clauses is determined by an operator is examined and rejected. The main evidence comes from the analysis of factive contexts featuring the subjunctive such as rimpiangere (regret). The operator hypothesis in fact is shown to be unable to provide the correct semantics in these cases. For further details, I refer the reader to their discussion. Note also that my summary of Giorgi and Pianesi’s proposal is simplifying and ignoring several points, which however are important for their general discussion.
(59) *Quel dittatore, ha detto che i notiziari televisivi parleranno a lungo delle proprie, gesta.
That dictator said that the TV news programs will talk (FUT-IND) a lot about self’s deeds

(60) Quel dittatore, spera che i notiziari televisivi parlino a lungo delle proprie, gesta.
That dictator hopes that TV news programs will talk (PRES-SUBJ) for a long time about self’s deeds

In examples (58) and (59) the embedded verb is an indicative form. According to the proposal by Giorgi & Pianesi, in order to be interpreted, the embedded tense – be it past, present, or future – must be first interpreted in T, where the subject’s – the bearer of the attitude – coordinate is represented, and then in C, where the speaker’s coordinate can be retrieved. In example (60) a subjunctive form appears. According to Giorgi & Pianesi’s proposal, only the subject’s coordinate is represented, and not the speaker’s. Consistently, LD binding obtains in (60), but not in (58) and (59). Consider also the following cases:

(61) Quel dittatore, ha detto che i notiziari televisivi avrebbero parlato a lungo delle proprie, gesta.
That dictator said that TV news programs would talk (FUT-IN-THE-PAST) a lot about self’s deeds

(62) Quel dittatore, credeva che il primo ministro, avesse detto che i notiziari televisivi avrebbero parlato a lungo delle proprie, gesta.
That dictator believed that the Prime Minister had(PAST-SUBJ) said that the TV news program would talk (FUT-IN-THE-PAST) a lot about self’s deeds

Consider also that it is not the verb type appearing in the matrix clause that gives rise to such an effect – i.e., dire vs. credere – as shown by the fact that LD binding is acceptable in example (61) and (62). In sentence (61) the embedded verbal form is a future-in-the-past – namely, a form which is sensitive only to the temporal location of the subject and not to that of the speaker, as opposed to a will-future, as can be seen in example (59) above. In this respect, this form is parallel to the English one, though morphologically different. Accordingly, the binding of the anaphor with quel dittatore (that dictator) is possible. In example (62), a would-future appears in the most
embedded clause, and a subjunctive form of *dire* appears in the intermediate one. Therefore, not only the subject of *dire* (the prime minister) is available for binding, but also the subject of the more superordinate clause can be accessed for binding purposes. Concluding, whatever permits LD binding must not be taken to be a property of the predicate in itself – i.e., of *dire* vs. *credere* – but of the specific verbal form. My proposal is that this is related to the necessity of representing the speaker’s coordinate.

As a conclusion of this section, let me propose a principle of anaphoric binding, which I’ll discuss and amend in the following sections:

(63) Long distance anaphoric binding:

a) a LDA is the spell-out of an unsaturated position
b) it can be saturated either by a co-argument, or
c) by the bearer of the attitude

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32. For simplicity, I’ll assume here that morphologically complex anaphors such as *se stesso*, *himself* and *ta-ziji*, obey principle A of the binding theory. Only anaphors escaping principle A of the binding theory can spell out unsaturated positions. Something similar has been proposed in the literature, for instance by Reuland and Reinhart (1993), who claimed that the core cases of binding excluded possessive anaphors, anaphors in PPs, etc, basically including only items in argumental position. Notice that the prediction concerning which items would follow which strategy is language internal. In fact, *ta-ziji* is marked for person and only for person, exactly like *proprio*. *Proprio* however, can be long distance bound, whereas *ta-ziji* is only local. See also §1 for a discussion.

Moreover, recall that a complex item such as *each other*, when able to escape principle A of the Binding Theory, is subject oriented, exhibiting therefore long distance features. This shows that Pica’s (1987) criterion, of being mono-morphemic is not accurate, since it certainly cannot be applied to *each other*. See Safir (1996) for a discussion.

It seems to me that Burzio’s (1994) and Safir’s (2003a, 2003b, 2003c) intuitions can be taken to be correct, with respect to the way the items entering the Numeration is selected. The property according to which languages define which item is a LDA could be the following: the least specified item is selected to mark unsaturated position. Intuitively, this makes sense, because the property of an unsaturated position crucially must depend on the item which saturates it, and not on the position marker. In other words, it is not the case that anaphors need an antecedent because they lack features, but in the contrary, they lack features because they need an antecedent – i.e., they are used to mark unsaturated positions. For further discussion on this topic, see Giorgi (2004a and 2004b).
The notion of *unsaturated position* will be discussed in the following section (see also Giorgi 2004a). As far as the possessive anaphor *proprio* is concerned, it can be proposed that the whole nominal projection works as an unsaturated phrase. Huang & Liu (2001) discuss the same proposal with respect to *ziji* in genitive position inside nominal projections.\(^{33}\)

If identification with a co-argument does not obtain, then the whole verbal extended projection – i.e., the TP, if the verb is an indicative, or a MOODP, if it is a subjunctive – becomes an unsaturated phrase, given that the unsaturated position percolates (Cf. for discussion of this point Larson & Segal 1995). The bearer of the attitude is accessible in TP – with indicatives – and MOODP – with subjunctives – and is therefore a suitable antecedent for the anaphor. These steps can apply recursively, so that subject orientation is, in principle at least, unbounded.

Notice that subject orientation obtains derivatively, since the antecedent is not the subject itself, but the bearer of the attitude, represented in the embedded clause for interpretive purposes. In *most* cases, the bearer of the attitude coincides with the subject, hence the subject orientation effect. I’ll show the consequences of this idea with respect to psych-verbs, where it contributes in explaining a long-lasting puzzle.

Notice that points (b) and (c) do not represent two independent strategies, but are the expression of the same general property – namely, an unsaturated position must be saturated as locally as possible. Therefore the anaphor looks first for co-arguments in the same predicate and then, as the context expands – and the unsaturated argument percolates – it looks for the bearer of the attitude, i.e., in most cases – but not *all* of them – the superordinate subject.

In sub-sections 2.2 and 2.3, I’ll discuss further details related to the proposal in (63). In section 3 I’m going to show how this hypothesis is able to correctly predict the distributions of LDAs in the various contexts.

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\(^{33}\) The fact that Italian and Chinese seem to behave alike in this particular domain, might be an additional argument in favor of this move, though this does not make it clearer why this should be the case. It could be speculated that the prenominal (genitive) position is the position actually defining the reference of a Noun Phrase. If it happens to be anaphoric, therefore, the whole nominal projection counts as such.
2.2. LDAs as unsaturated positions

It has often been the case that anaphors have been considered in the literature as bound variables *tout court*. Here I’ll show that LDAs must be analyzed by means of a finer grained theory of reflexives, and that—though they can behave as bound variables, for instance when bound by a quantifier – they fall in a different class. I’ll distinguish *unsaturated* positions, from *open* positions – i.e., bound variables. I discuss this point more extensively in Giorgi (2004b), in this section I’ll summarize the basic considerations.

The distinction unsaturated vs. open positions is discussed in Higginbotham (1997, see also Higginbotham, 1985). I’m not going to reproduce here the arguments to this end. I’ll propose a mechanism along the same lines, applied to LD anaphoric items.\(^{34}\)

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34. Reuland (2001a) identifies anaphors with bound anaphors. In this perspective, the question he has to address is why in certain contexts the anaphor has to be selected and why in other ones the pronoun has. He considers the following Dutch examples:

(i) *Oscar voelde [zich wegglijden]*  (Reuland’s ex. (21))
Oscar felt himself slide away

(ii) *Oscar voelde [hem wegglijden]*  (Reuland’s ex. (22))
Oscar felt him slide away

He argues that both sentences have the same interface representation:

(iii) *Oscar λx (x felt (x slide away))*  (Reuland’s ex. (23))

The question is therefore why (i) is chosen over (ii) as a source for (iii). I’m not attempting to give here an exhaustive answer to this problem, as I remarked in the introduction. I think that the question is relevant with respect to (ii), and in general as far as the nature of principle B is concerned – i.e., it seems to me that the real problem is why (ii) cannot be exhaustively translated by means of (iii).

As far as this paper is concerned, I take for granted the existence of a principle of disjointness – or *obviation* adopting Higginbotham’s (1985) terms – concerning pronouns. I’ propose that, as far as an anaphor like *proprio* is concerned, a representation such as the one in (iii) would not capture its core properties.
There are distributional differences between anaphors and bound pronouns, which are rather obvious: bound pronouns are not subject oriented, are not sensitive to subjunctive/indicative distinction etc. Moreover, and more importantly, there are semantic differences. In Kaplan’s contexts, which I briefly illustrated above, rediscussed in Chierchia (1989), long distance anaphors are unambiguously de se, whereas pronouns maintain the ambiguity.35

(64) John, thinks that his pants are on fire.

(65) Ogni ragazzo, pensa che i suoi pantaloni siano in fiamme.

(66) Every boy thinks that his pants are on fire.

(67) Gianni, pensa che i propri pantaloni siano in fiamme.
    Gianni thinks that self’s pants are on fire

(68) Ogni ragazzo, pensa che i propri pantaloni siano in fiamme.
    Every boy thinks that self’s pants are on fire

When the pronoun is bound by a quantifier, both the first-personal and non first-personal readings are available, like in (65) and (66). However, when the anaphor is present, only the first-personal reading is acceptable – cf. ex. (68). Given this paradigm, it seems necessary to set the two cases apart. The conclusion is that the anaphor and the

35. In Italian, to my judgment, and in English – at least for the speakers I interviewed – the ambiguity between first-personal and non first-personal interpretation holds even in the case of sloppy reading:

(i) Maria pensava che la sua casa fosse in fiamme, e anche Gianni.
    Maria believed that her house was on fire, and Gianni too

(ii) John thought that his pants were on fire and Bill too.

The pronoun in these cases is ambiguous in both clauses, as expected. Coherently, proprio, is only de se:

(iii) Maria pensava che la propria casa fosse in fiamme, e anche Gianni.
    Maria believed that self’s house was on fire and Gianni too
bound pronoun cannot be tout court identified with each other. Williams (1987; 1989) proposed that the binding theory operates on thematic relations and not on syntactic projections.\footnote{Williams (1987, p.159) reformulates principles A, B and C of the binding theory as principles A, B and C of the \textit{Th}-binding theory. Furthermore, he also defines the notion of \textit{th}-command, analogous to the one of c-command.}\footnote{As well known, empty positions in Italian, with the exception of the subject of tenseless clauses – PRO – are pronominal ones. See Rizzi (1986) for a discussion of some cases of \textit{pro} in object position. The question of why there aren’t empty anaphors is however far from trivial and should be reconsidered in the light of the Minimalist perspective (Chomsky, 1995, 1998). I’m not going to define what a co-argument is and will leave the notion vague and intuitive. A proper definition of co-argumentality would lead me too far away from the main issue. Reinhart & Reuland (1993) make extensive use of the notion of co-argument. They adopt the strictest possible view on what counts as a co-argument, basically limiting it to arguments of the same (verbal) predicate. I refer the reader to their discussion and will not pursue this question any further.}\footnote{To complete the discussion, consider the examples (i) and (ii). The anaphor in (i) is bound by the local subject \textit{Gianni} and must also be interpreted as a variable. The non-variable reading is available for the pronoun in (ii), but not for the anaphor:}

An unsaturated position might be saturated by means of the identification process with a co-argument. In that case, no subject orientation obtains. Identification with a co-argument only requires c-command at the relevant level.\footnote{To complete the discussion, consider the examples (i) and (ii). The anaphor in (i) is bound by the local subject \textit{Gianni} and must also be interpreted as a variable. The non-variable reading is available for the pronoun in (ii), but not for the anaphor:}

\begin{enumerate}
\item Solo Gianni ama la propria madre.
   
   \textit{Only Gianni loves self’s mother}
\item Solo Gianni ama sua madre.
   
   \textit{Only Gianni loves his mother}
\end{enumerate}

This fact follows without any further stipulation: The anaphor in fact marks an unsaturated position and the saturation process identifies it with the co-argument \textit{Gianni}. The pronoun, on the contrary is an entity that can refer to something else. In the non-bound reading of (ii) \textit{sua} ‘stands for’ \textit{Gianni} and this interpretation is ‘carried over’ to the second conjunct. For simplicity, I’m disregarding here many details
Going back to the first personal cases, consider the following example:

(69) Solo Gianni, pensa che i propri pantaloni siano in fiamme.

Only Gianni thinks that self’s pants are on fire

In this case the anaphor is interpreted both first personally and as a bound variable. The first personal reading subsumes the bound variable one: It would be a nonsense for the anaphor to be simultaneously first personal and not a bound variable; no such interpretation can in principle be available. The issue, therefore, is to explain why the anaphor, in these positions, has to be first personal, and not why it is a bound variable. Putting it informally, the anaphor is first personal, precisely because it marks an unsaturated position. Namely, there isn’t anything there which ‘takes a reference’ in the sense a pronoun does.

Another set of data pointing to the same conclusion comes from the analysis of the so-called near reflexives. Jackendoff (1992) pointed out that anaphors in English can have the statue reading in a Mme. Tussaud setting. Namely, if we take a scenario like the wax museum, we might imagine that some famous persons visiting it might see their own statues. Jackendoff notices that in such a scenario a sentence such as (70) can mean (71), but not (72):

(70) Ringo fell on himself 

(71) ‘The actual Ringo fell on the statue of Ringo’

(72) ‘The statue of Ringo fell on the actual Ringo’

Sentence (70) can be interpreted as: wandering around at the wax Museum the famous Ringo Starr might fall on its own statue, but not the other way around. The analysis provided by Jackendoff is mainly devoted to the explanation of the contrast between (71) and (72). Though (72) is in principle a possible meaning – for instance, as a

concerning the precise interpretation of only sentences. See Rooth, among the others, (1992) for an extended analysis.
consequence of a sudden earthquake, the statue of Ringo fell on him – (70) cannot express it.\footnote{39}

Lidz’s (2001a, 2001b, 2001c) analyzed these cases and proposes the term near reflexives for anaphors in the statue setting. He discusses an account – Condition R – for the unavailability of the near reflexive reading in the local context. In his approach, the anaphors must be classified on the basis of the possibility of instantiating the near-reflexive function. As a lexical property, they have – or lack – the possibility of taking a near-antecedent (such a statue). Lidz represents the two readings in the following way (from Lidz, 2001a, exx.15a - 15b):

\[(73) \lambda x [P(x,x)] \text{ (Semantic/ Pure-reflexive)}\]

\footnote{39. Burzio (1994) noticed that in Italian the statue reading is only available with the complex anaphor se stesso (lit: self-same) and not with the simple anaphor sé (self). Burzio gives the following examples, where the subscript \(S\) stands for statue:}

(i) Ringo cadde su se stesso\(S\) \hfill (Burzio’s 27a. The judgment is mine)
Ringo fell on self-same
‘Ringo fell on himself’

(ii) *Ringo cadde su di sé\(S\) \hfill (Burzio’s 27b. The judgment is mine)
Ringo fell on of self
‘Ringo fell on himself’

Burzio (1994) actually assigns a ‘?’ to the sentence in (i) and a ‘??’ to the sentence in (ii). To my ear, however, the contrast is quite sharp, and can be considered as ‘good’ vs. ‘ungrammatical’.

In addition to this contrast, Burzio (1994) also notices that the reflexive si is also not available in the Mme. Tussaud setting:

(iii) *Ringo si\(S\) è sputato addosso \hfill (Burzio’s 27c)
Ringo to-self spat upon
‘Ringo spat on himself’

(iv) * Ringo si\(S\) è rotto un braccio \hfill (Burzio’s 27d)
Ringo to-self broke an arm
‘Ringo broke his arm’
Condition R is represented as follows:

\[
\lambda x \ [P(x, f(x))] \leftrightarrow (\theta 1 = \theta 2) \quad \text{(from Lidz, 2001a, ex.17)}
\]

This condition states that if a predicate is semantically reflexive – where semantic reflexivity excludes the availability of near-reflexive readings – it must be lexically reflexive. Conversely, if a predicate is lexically reflexive, then it must be semantically reflexive – i.e., it must exclude near-reflexivity. This way, he excludes near-reflexivity in (75).


Both the anaphors \textit{ziji} and \textit{ta-ziji} can have a near-reflexive interpretation – i.e. they can refer to the statue, whereas the proper name refers to the actual person.

The same holds in Italian, with the clause bound \textit{proprio}:

On the contrary, the near reflexive reading is unavailable for LDAs, both in Italian and Chinese:
(79) Ringo, temeva che i visitatori danneggiassero il proprio, viso.  
Ringo was afraid that the visitors might damage self’s face  
‘Ringo was afraid that visitors might damage his face/ *his statue’s face

(80) Mao Ze-Dong, ba yiwei Lisi zhuyi-dao ziji, le  
Mao Ze-Dong BA thought that Lisi noticed self ASP  
Mao Ze-Dong thought that Lisi noticed himself/ *his statue

In (79) and (80), proprio and ziji are LD bound and near reflexivity is ruled out. The problem therefore is the to explain why ziji and proprio can instantiate the near-reflexive function in the local domain, whereas they cannot do it in the non-local one.\(^{40}\) The hypothesis I’m arguing for here can account for these facts. An unsaturated position is theta-identified with the antecedent, and therefore – coherently with the proposal by Lidz concerning the local contexts – near-reflexivity is excluded.

2.3. Anaphoric temporal locutions and SOT mechanisms

In this section, I’ll further discuss the issue concerning the representation in the morphosyntactic structure of the embedded clause of the speaker’s and the subject’s coordinates. I’ll show that the constraints applying to anaphoric temporal expressions in embedded contexts also affect the distribution of LDAs. Giorgi & Pianesi (2003b) analyze anaphoric temporal expressions such as il giorno dopo (the day after), which cannot appear in DAR contexts. I’ll briefly summarize the discussion relevant for the present work. Consider the following cases:\(^{41}\)

(81) #Gianni è partito il giorno (mese/ anno / ora) prima/ dopo.  
Gianni left the day (month/year, hour) before/ after

\(^{40}\) The Chinese anaphor ta-ziji (lit: him-self) is only clause bound. I thank Audrey Li and Luther Liu for judgments and discussion on this point.

\(^{41}\) This pattern differs slightly between Italian and English, though the basic properties remain the same. However, what is relevant here is the distribution in Italian, given that I’m examining LDAs in this language. See Giorgi & Pianesi (2003b) for details.
The day after and the day before are anaphoric temporal locutions. Therefore, they must have an antecedent. For this reason, examples (81) and (82) are deviant if uttered out-of-the-blue. This fact also means that the utterance time is not a suitable antecedent: these sentences in fact cannot mean that Gianni left the day before (or the day after) the day of the utterance.

If a suitable antecedent is provided by the context, (81) and (82) are acceptable, as shown by the discourses constituted by (83) followed either by (84) or by (85):

(83) A: Gianni è partito il 23 maggio.
A: Gianni left on May 23\textsuperscript{rd}

(84) B: Ma no! E’ partito il giorno prima!
B: Oh no! He left the day before!

(85) B: Ma no! E’ partito il giorno dopo!
B’: Oh no! He left the day after!

DAR contexts are not felicitous for these expressions:

(86) #Gianni ha detto che Mario partirà due giorni dopo.
Gianni said that Mario will leave two days after.

(87) Gianni ha detto che Mario sarebbe partito due giorni dopo.
Gianni said that Mario would leave two days after.

According to the proposal discussed by Giorgi & Pianesi (2003b), the embedded sentence in (86) is a DAR context, because the eventuality must be located with respect to the time of the superordinate clause – as the standard anchoring procedure – and with respect to the time of the utterance. Adopting the framework I just sketched in the previous sections, in (86) both the subject’s coordinate and the speaker’s one have to be represented, in T and C respectively. This is not the case with (87), because the would-
future does not require an evaluation with respect to the utterance time – i.e., only the subject’s coordinate is represented in the embedded clause.\footnote{Giorgi & Pianesi (2003b) argue that also the contrast between (i) and (ii) is due to DAR/non-DAR distinction:}

As I briefly sketched above, the theoretical account proposed by Giorgi & Pianesi (2001) requires the embedded temporal form in DAR contexts to be interpreted twice: first with respect to the subject’s coordinates and then with respect to the speaker’s coordinate. In DAR contexts in fact the speaker as well qualifies as a bearer of an attitude toward the content of the embedded proposition, together with the matrix subject. Therefore, they are both relevant for the interpretation of tense and of the anaphoric temporal locution.

The interpretation of the empty position of the temporal locution – \textit{prima x} (before x) – contributes to the location of the event of the embedded clause. As a consequence, in (86) the empty position is interpreted both as the day preceding the one in which Gianni spoke, and as the day preceding the day of the utterance. The outcome of this process is the lack of a coherent interpretation of the embedded clause, because the second part of the interpretive process – namely, the assignment of a value under the sequence

\begin{itemize}
\item[(iii)] *Quel dittatore, ha detto che i libri di storia non hanno parlato abbastanza delle proprie gesta.*  
That dictator said that the book of history didn’t talk enough about self’s deeds
\item[(iv)] (?)Quel dittatore, ha detto che i libri di storia non avevano parlato abbastanza delle proprie gesta.*  
That dictator said that the book of history didn’t talk enough about self’s deeds
\end{itemize}
featuring the speaker’s coordinate –fails. The process takes place locally, as a by-product of the temporal interpretation of the embedded clause. These considerations imply a partial revision of Giorgi & Pianesi (2003b). The empty position inside the temporal anaphoric locution, in fact, should be better seen as an unsaturated position, along the lines of nominal anaphors, then as a variable, as proposed by the authors.

3. Back to LDAs

The distribution of the LDAs exactly parallels the case of the anaphoric temporal locutions described above. According to my proposal, these facts follow from the same theory.

The extended verbal projection – as I said above, the TP in the case of the indicative and the MOODP in the case of the subjunctive – is a phrase with an unsaturated position. According to the principle of binding given in (63), if this position fails to be saturated by means of a co-argument, it is saturated by means of the sequence assignment. Therefore, it is saturated by the value provided by the bearer of the attitude – namely, in most cases, but not all of them, the superordinate subject. The process applies recursively, each value that can be picked up in the course of the process being a possible “antecedent” for the anaphor. The process stops when the speaker’s assignment sequence intervenes. At that point, all positions must be saturated and cannot be further operated upon. This makes intuitive sense, given that we might think of the speaker’s assignment sequence as something that is not a relative assignment, but an absolute one, referring to the actual world. Notice also that this is a very general requirement of anaphoric Noun Phrases. In other words, this is why anaphors must have an antecedent: when the speaker’s coordinate comes into play, all positions have to be made interpretable, hence, saturated. This is why antecedent-less anaphors are ungrammatical:

43. Notice the similarity of the conclusions – though not of the method or of the basic assumptions – with the logophoricity approach. The bearer of the attitude in fact, is likely to be the pivot, self, or source of the clause. The predictions however, are more accurate, given that the notion of speaker’s and subject’s coordinate presents some advantages over the more vague notions of pivot, source and self.
(88) *Io amo la propria madre.
I love self’s mother

(89) *I love himself.

Since a first person pronoun is not a possible antecedent in Italian, or English – *propria and *himself, being third person – the anaphor has no antecedent. This implies that the event cannot be properly interpreted by being evaluated with respect to the speaker’s coordinate. Moreover, the process is strictly local and cannot be extended beyond the limit of the sentence – i.e., even if the preceding, or following, discourse provides a suitable antecedent, it cannot be picked up by the anaphor:

(90) Ieri Gianni mi ha salutato. *Io ammiro la propria madre.
Yesterday Gianni said hello to me. *I admire self’s mother

In this example, a feature compatible antecedent, the third person NP Gianni, is present in the previous discourse, but the anaphor proprio cannot refer to it.44 If the general rule is that once the sentence is located with respect to the utterance time – i.e. the speaker’s coordinates – all positions in the sentence must be saturated, the unacceptability of (90) immediately follows.

In this way there is no need to hypothesize a special mechanism for LDAs. The machinery which is independently needed for temporal anchoring also accounts for anaphor binding, both in the case of temporal anaphors, as I showed above, and in the case of nominal ones.

Let us consider now the various cases one by one. Consider first the embedded subjunctive:

(91) Gianni, crede che Paolo, odi la propria moglie.
Gianni believes that Paolo hates (SUBJ) self’s wife

44. The relevant issue here is not how to state a ban against taking an antecedent from outside the sentence, since, as many scholars shown, this can often be the case, even in languages like English. The relevant question is why in these cases it is impossible, and what exactly licenses an (apparent) sentence-external antecedent in the so-called logophoric cases (see Zribi-Hertz, 1989). See sec. 5 for some considerations on this point.
This sentence is ambiguous, in that both Paolo and Gianni are possible antecedents. Paolo is a co-argument of the anaphor and satisfies the c-command requirement. If this is not the intended antecedent, the whole verbal extended projection – the MOODP – is marked as having an unsaturated position. The bearer of the attitude, Gianni, is locally available and can therefore be selected as a possible antecedent. For details on how the relevant ILF is built, I refer the reader to Larson and Segal (1995).

The process could proceed further, as for instance in the following case:

(92) [S1 Mario supponeva [S2 che Gianni credesse [S3 che Paolo odiasse la propria moglie]]]

Mario supposed that Gianni believed(SUBJ) that Paolo hated(SUBJ) self’s wife

The MOODP in S2 can be marked as having an unsaturated position and the bearer of the attitude toward the content of that clause, in this case Mario, is locally available. Let me stress again that the subject’s coordinate is represented in the embedded clause and is independently needed to fix the temporal reference. Consider now the indicative:

(93) Gianni, ha detto che Mariaj ama la propria+ij madre.

Gianni said that Maria loves(IND) self’s mother

Maria is locally available for binding, given that it qualifies as a c-commanding co-argument. Gianni, however, is not an acceptable antecedent. Let me illustrate how this can be derived.

If Maria is not the intended antecedent, the whole TP is marked as an unsaturated phrase. At the next step, the bearer of the attitude should in principle saturate the position in question. In this case, however, since the sentence is a DAR context, the event has to be located with respect both to the subject’s coordinate and to the speaker’s one. As we saw in section 2.3, this poses conflicting requirements. Notice that this consideration provides a strong argument in favor of the unification of temporal unsaturated positions with nominal ones.

45. It is actually a co-argument of the DP containing the anaphor. As I briefly discussed above, I will simply assume that a possessive anaphor makes the DP immediately containing it an anaphoric item. Namely, proprio NP acts as an anaphor. Therefore, its co-arguments are the other arguments of the verb governing the DP in question.
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Finally, given that the event is now located with respect to the utterance time, the process has to stop, and higher nominal elements cannot be considered as suitable antecedents, so that further embedding does not improve the sentence:

(94) Paolo$_w$ sa che Gianni$_i$ ha detto che Maria$_i$ ama la propria$_w$/*$_ij$ madre.
Paolo knows that Gianni said that Maria loves(IND) self’s mother

Let us consider now the more complex case related to psych-verbs. I reproduce here the examples given above, for simplicity:

(95) La propria$_i$ moglie preoccupa molto Gianni$_i$
Self’s wife worries Gianni a lot

(96) Che tutti ambiscano al proprio$_i$ incarico preoccupa molto il primo ministro$_i$
That everybody wishes(SUBJ) self’s office worries the Prime Minister a lot

(97) *Il primo ministro$_i$ preoccupa molto chiunque ambisca al proprio$_i$ incarico.
The Prime Minister worries a lot everyone who whishes(SUBJ) self’s office

(98) Chiunque ambisca al proprio$_i$ incarico preoccupa molto il primo ministro$_i$
Everyone who wishes(SUBJ) self’s office worry the Prime Minister a lot

The sentence given in (95) can be easily accounted for under any theoretical perspective assuming for these cases c-command from the object to the subject, at the appropriate level of representation. See among the others, Belletti and Rizzi (1988) and Pesetsky (1995) for proposals to this effect. In my terminology, this example would constitute a simple case of co-argumentality.46

46. Notice that the reverse case is also grammatical:

(i) Gianni, preoccupa la propria$_i$, moglie.
Gianni worries self’s wife

The grammaticality of this example can be accounted for by principle A of the binding theory, where principle A is taken as distinct from the principle I suggested in (63). I haven’t discussed in fact what’s the relation of the principle in (63) with principle A. The issue also bears on the status of non-LDAs such
With respect to (96), where the anaphor is deeply embedded in the subject clause, the same mechanism adopted in the LD cases discussed above is at work. Adopting the framework I just sketched, the Prime Minister is the bearer of the attitude, and as such, it qualifies as a suitable antecedent for the LDA – or, better to say, it can saturate the unsaturated MOODP. Example (97) is ungrammatical: in this case, the Prime Minister is not the bearer of the attitude, and contrasts minimally with (98).

Consider now the case of a LDA embedded in an adverbial clause:

(99) Il primo ministro sperava che il dittatore partisse prima che i rivoluzionari sequestrassero il proprio patrimonio.

The Prime Minister hoped that the dictator left(SUBJ) before the revolutionaries sequestered self’s patrimony

In this case, the anaphor must refer to the subject of the main clause, and cannot refer to the intermediate subject. Irrelevantly, the local subject, the revolutionaries, could work as a suitable antecedent, as a consequence of co-argumentality. The availability of the highest subject the prime minister, and the unavailability of the lower one, the dictator, is easily explained by the proposal suggested here: That dictator is not an attitude bearer for the adverbial clause. The adverbial clause, though featuring the subjunctive, does not get it as a function of sequence of tense, but on the basis of independent properties,

as se stesso, himself and ta-ziji. See Safir (2003a, 2003b, 2003c) for a discussion. The idea, however, would be that case (i) is not different from the one with a simple transitive verb, like amare (to love):

(ii) Gianni ama la propria moglie.

Gianni loves self’s wife

For the time being, I can hypothesize that the two principles coexist and that principle A holds of so-called morphologically complex anaphors. Proprio partakes of both strategies, as originally proposed and discussed in Giorgi (1983; 1990).

47. These examples feature a relative clause instead of a subordinate one. It is a well-known fact that relative clauses behave differently from complement ones with respect to the anchoring phenomena. However, their specific properties can be disregarded in the present discussion.

48. For a discussion along rather similar lines, see also Williams (1989, p. 442).
connected with the semantics associated with it.\textsuperscript{49} On the contrary, \textit{the prime minister}, is a possible antecedent, being the bearer of the attitude relevant for the interpretation of the intermediate complement clause. Recall in fact that the process applies recursively until the event is placed with respect to the utterance one.

Let’s consider now the cases in which the LDA is embedded in the subject position.\textsuperscript{50}

\begin{equation}
\text{(100)} \quad \text{Gianni ha detto che la propria madre ha telefonato.}
\end{equation}

\begin{quote}
Gianni said that self’s mother called\textsuperscript{(IND)}
\end{quote}

In this case, the superordinate subject Gianni is available as an antecedent for the LDA. The embedded verbal form is in the indicative, which usually, as we saw above, has a blocking effect on LD binding. This observation can be accounted for considering the way in which the relevant ILF is derived. What is to be located with respect to the subject’s and the speaker’s coordinates is the TP – namely, the event has to be located in time with respect to the other relevant events, but the subject falls outside the domain of the TP. The same procedure as before applies and the whole TP of the main clause is marked as an unsaturated phrase. The subject \textit{Gianni} is locally available as a suitable

\textsuperscript{49}. In this particular case, the presence of the subjunctive can be due to the peculiar semantic representation of the clauses introduced by the preposition \textit{prima} (before), as opposed for instance to the preposition \textit{dopo} (after). Consider the following cases:

\begin{enumerate}
\item \textit{Gianni è partito prima che Maria telefonasse.}
\end{enumerate}

\begin{quote}
Gianni left before Maria called\textsuperscript{(SUBJ)}
\end{quote}

\begin{enumerate}
\item \textit{Gianni è partito dopo che Maria ebbe telefonato.}
\end{enumerate}

\begin{quote}
Gianni left after Maria had\textsuperscript{(IND)} called
\end{quote}

In the first case, there is an existential quantification – namely, there is at least one episode of Gianni’s leaving, before Maria’s call. In the second case, there is a universal quantification: every relevant episode of Gianni’s leaving is located after Maria’s call. Independently of the specific account for these cases, however, the subjunctive/indicative distinction is not due to Sequence of Tense phenomena, but to other factors.

\textsuperscript{50}. Huang & Liu (2001) discuss a very similar paradigm for \textit{ziji} when in subject position.
antecedent and the position can be successfully saturated. Recall that this property occurs cross-linguistically and is also found in Chinese. Consider now the following case, which further supports the view I sketched so far:

\[\text{(101) } [S_1] \text{Mario credeva } [S_2 \text{che il fatto } [S_3 \text{che la propria figlia fosse andata in campeggio da sola}] \text{preoccupasse molto Gianni}]\]

Mario believed that the fact that self’s daughter had left for the camp by herself worried Gianni a lot.

In this case the embedded clause S3 features a psych-verb and a LDA embedded in the subject. As predicted, both Mario and Gianni are possible antecedents for proprio (self’s). Again, this follows from the fact that the process applies recursively and every nominal element meeting the requirements qualifies as a possible antecedent. Gianni is the bearer of the attitude with respect to the embedded subject clause S3; Mario is available as a (local) antecedent for the LDA. Finally, consider the following example:

\[\text{(102) } [S_1] \text{Quel dittatore credeva } [S_2 \text{che il primo ministro preoccupasse molto } [S_3 \text{chiunque ambisse al proprio incarico}]]\]

That dictator thought that the Prime Minister worried everyone who whished self’s office.

I discussed above why the equivalent of S2 is ungrammatical (see ex. 97). The prime minister, in fact, is not the bearer of the attitude and does not qualify as a suitable antecedent for the LDA in S3. However, since the process applies recursively until the event is evaluated with respect to the utterance one, the superordinate subject, that dictator, does qualify, being the bearer of the attitude with respect to S2.\(^{51}\)

\(^{51}\) It could also be the case that it qualifies by virtue of being a local antecedent, once the superordinate TP is marked as an unsaturated phrase. Here I’ll leave the question open. I hope that further investigation of the subject might provide a better insight of the question.
4. Chinese ziji

4.1. On the Chinese SoT

In this section, I’ll consider the predictions of the theory I sketched, when applied to Chinese.

In Chinese, SOT has very different properties with respect to Italian and English. In the first place, Chinese lacks of a morphological device for marking tense, whereas it uses several aspectual morphemes, which bear on the temporal interpretation only derivatively. However, trivially, in complex sentences the various events are located with respect to each other exactly as in Italian and English. As pointed out in Lin (2003, p. 282), the temporal reference of Chinese subordinate clauses largely depends on the semantics of the matrix verb. The relation can be fully determined on principled grounds, as for instance in the following cases:

(103) Wo kanjian ta da Lisi (Lin’s ex.36)
I see he hit Lisi
I saw him hit Lisi

Due to the peculiar semantics of the perception verbs – a general property across languages, and perhaps a cognitive constraint – the event of hitting must overlap the seeing. This piece of evidence would be the same in all languages. The author goes on by saying that when the temporal constraint of the matrix clause is not a priori defined, the temporal location of the embedded event is left undetermined (p. 283-284). Let me consider more closely the following example:

(104) Zhangsan shuo/renwei Lisi hui chuli (Lin’s ex. 39c)
Zhangsan say/think Lisi will handle
Zhangsan said/thinks Lisi would/will handle it

I thank Audrey Li for providing the relevant reference.

For completeness, I must say that Lin (p.c.) does not fully agree with this conclusion. However, it does not seem to me to be contradicted by anything he proposes in his work, or by anything I’m aware of about the Chinese language. Therefore, I’ll pursue it, since it leads to correct predictions.
In the discussion of this example, Lin points out that the eventuality of the embedded clause is located after the eventuality in the main one, by means of the auxiliary *hui* expressing futurity. However, the location of the embedded clause with respect to utterance time is not specified. In Giorgi & Pianesi’s terms, this fact can be interpreted by saying that the embedded eventuality is anchored to the superordinate one, but that – as in many other languages, such as for instance Russian and Japanese – there is no anchoring to the utterance time, hence no DAR. Therefore, the sentence is predicted to be equivalent both to the sentence with the *will*-future and to the one with the *would*-future, as shown in the translation.

Consider now the following example:

(105)  Zhangsan shuo/renwei Lisi zai xizao  (Lin’s ex. 39b)

Zhangsan say/think Lisi Prog take-a-bath
Zhangsan said/thinks Lisi was/is taking a bath

In this example there is an aspectual marker – *zai*, glossed as a progressive marker – in the embedded clause, to the effect that the embedded eventuality must be interpreted as overlapping the time of the matrix one. However, its relation with the utterance time is again not specified. In fact, the glosses show that it can give rise either to an interpretation in which the embedded event is understood as simultaneous only to the matrix one, or to an interpretation in which it is interpreted as simultaneous both with the matrix and with the utterance event, analogously to the example in (109).  

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54. Lin (ex.(39b)) also discusses the following case:

(i)  Zhangsan shuo/renweui Lisi shuo huang

Zhangsan say/think Lisi tell lie
Zhangsan said/thinks that Lisi told lies

The English glosses imply that the embedded verb is interpreted as a past with respect to the one of the matrix clause. This is in fact the interpretation we would expect coherently with the other cases: the embedded eventuality is anchored to the main one, irrespectively of the utterance time. In this case however, the difference with the DAR languages is not evident, because the DAR and non-DAR strategies both give the same result. The author however (p.284) comments this sentence by saying that the embedded clause is interpreted as if it were unembedded. If that were the case, the sentence should also be compatible with an interpretation in which the embedded eventuality, though still interpreted as a
Given this evidence, it seems reasonable to conclude, therefore, that anchoring to the main verb obtains in all cases. This is predicted by a proposal such as the one illustrated in Giorgi & Pianesi (2001). The authors in fact claim that the anchoring of the eventuality of a complement clause to the superordinate one is an obligatory requirement of Universal Grammar. On the other hand, Chinese is a non-DAR language and the relation of the eventuality in the embedded clause with utterance time is not automatically provided.

The prediction of my proposal applied to Chinese is therefore the following: no blocking effect due to the DAR is expected, given that there is no codified DAR in the language. However, we should expect blocking phenomena whenever the speaker is represented in the embedded clause, as a bearer of an attitude toward its propositional content, in a way analogous to the DAR.

4.2. The hypothesis applied to ziji

In this section I’m going to check these predictions. Several scholars studied the properties of ziji and many resorted to the notion of logophoricity to explain its distribution, see among the others, Cole, Hermon & Lee (2001), Huang & Liu (2001); Pan (2001); Pollard & Xue (1998; 2001). The relevant facts I’m going to consider can be summarized as follows.

Blocking effect in Chinese:
- Chinese does not have DAR effects, hence the speaker’s coordinates do not appear in the subordinate clause to satisfy anchoring conditions, as on the contrary they do in Italian and English.
- Some phrases can introduce the speaker’s coordinate, by referring to the utterance context itself.

past, is located in the future with respect to the main one: Zhangsan said that Lisi would tell lies. The glosses however seem to exclude such a possibility.

55. All the Chinese data are taken from the literature. Where the authors point out that the evidence is controversial, I’ll signal it and report their opinions.
Whenever the speaker’s coordinate is introduced, the extended verbal projection must saturate all positions, in a way exactly parallel to the one observed for Italian – and in general for DAR languages.

Chinese reflexive *ziji* is not marked for person and number, in that it is compatible with first, second and third person antecedent, both in the singular and in the plural. As discussed in section 1.2.1, Huang & Liu (2001, p.161) point out with respect to the blocking effect, that a person asymmetry exists such that a first/second-person pronoun may block a third-person LD antecedent, but not the other way round. I’ll reproduce here the relevant examples:

(106) Zhangsan_i danxin wo/nj hui piping ziji_{i/j}  
Zhangsan is worried that I/you might criticize myself/yourself/*him  
  (Huang & Liu, ex. 11a; cf. ex. 13 above)

(107) Wo_i danxin Zhangsan_j hui piping ziji_{i/j}  
I am worried that Zhangsan will criticize me/himself  
  (Huang & Liu, ex. 11b, cf. ex. 14 above)

They also point out that LD *ziji* may be blocked by non-subjects, which are *not* potential antecedents:

(108) Zhangsan, gaosu wo_j Lisi_k hen ziji_{i/*j/k}  
Zhangsan told me that Lisi hated self  
  (Huang & Liu ex. 8a, cf. ex. 15 above)

Moreover, a deictically identified third-person NP does induce blocking, as illustrated by the following case:

(109) Zhangsan shuo DEICTIC-ta qipian-le ziji  
Zhangsan said that she/he cheated himself/herself  
  (Huang & Liu ex. 12)

Furthermore, in case of multiple occurrences of *ziji* even some third person NPs may induce blocking effects (see the discussion in Huang & Liu, pp. 161):
The list of the possible and impossible interpretations is as follows:

(111)  $Z_{ij_1} = z_{ij_2} = W W / L S / Z S$
(112)  $Z_{ij_1} = W W , z_{ij_2} = L S$
(113)  $Z_{ij_1} = W W , z_{ij_2} = Z S$
(114)  $Z_{ij_1} = Z S , z_{ij_2} = W W$
(115)  $Z_{ij_1} = L S , z_{ij_2} = W W$
(116)  *$Z_{ij_1} = Z S , z_{ij_2} = L S$
(117)  *$Z_{ij_1} = L S , z_{ij_2} = Z S$

Finally, explicit time expressions can be used to indicate the sequence of events—namely the ordering of the events of the complement and superordinate clause with respect to each other. As pointed out by Huang and Liu (2001, p. 181), these temporal expressions interact in an interesting way with LD binding. Consider the following example:

(118)  ? Zhangsan, kuanjiang-guo houlai sha si ziji de naxie ren
        Zhangsan has praised those persons who later killed him
        (Huang & Liu, ex. 107)

(119)  * Zhangsan, shang xingqi zanmei-le jin zao piping ziji de nei-ge ren
        Zhangsan praised last week the person who criticized self this morning
        (Huang & Liu ex. 109)

*Later* is an anaphoric temporal expression, given that it must refer back to a time already given in the sentence. The expression *this morning*, on the contrary, is an indexical, given that its location depends solely on the temporal coordinate of the speaker.

In all the unacceptable cases reported above, the utterance context—i.e., the speaker’s coordinate—appears in the embedded clause.
The theory I proposed for DAR languages, such as Italian, can predict these facts as well. The obvious difference is that in Chinese, the utterance event cannot be introduced by means of verbal morphology – since there is no such thing in the language. It is introduced by explicitly mentioning the speaker’s temporal coordinate, or by referring to the utterance event itself by means of indexical temporal expressions (cf. ex. 119). However, the effects on binding are exactly the same. Let me illustrate the examples one by one.

In example (106) the anaphor can only refer to the first/second person local subject, and cannot refer back to the matrix one, though this is an acceptable option in (107).

In (106) the speaker’s coordinate intervenes in the interpretation of the embedded clause through the presence of the first/second pronoun. The LDA interpretation strategy prescribes that the domain in which the antecedent has to be found cannot extend beyond the clause where such coordinate appears. Therefore, even if in Chinese there is no indicative/subjunctive distinction, the anaphor is blocked in the embedded clause in (106), but not in (107).

The mild blocking effect of Italian, which I briefly mentioned in section 1.3.1, exx. (46)-(47), is due to the same property: the speaker’s coordinate intervenes in the interpretation of the embedded clause, and therefore the domain should in principle be closed. On the other hand, in Italian-like languages – where tense is morphologically encoded – the syntax forces movement of the temporal features to the complementizer layer and the domain cannot be closed before such a movement is accomplished. Therefore the nominal blocking effect of Italian is only an interface phenomenon and not a truly syntactical one.\footnote{Notice that, trivially, there is no DAR effect in a case like the following:}

\begin{enumerate}
\item Gianni crede che io sia innamorato di Maria.
\end{enumerate}

\begin{quote}
Gianni believes that I am(SUBJ) in love with Maria
\end{quote}

If a DAR effect would arise, we should expect the sentence in (i) to have the same marginal status as that in the text. However, even if in (i) the utterance context must enter the interpretation, recall that in Italian – and Italian-like languages – in this case there is no syntactic representation of the temporal coordinates of the speaker, given that their appearance must be codified in the morphosyntax, in the verbal verbal morphology. In other words, the speaker’s coordinates are available only for nominal reference, but not for the temporal one.
Moreover in these cases, as discussed by Huang and Liu (2001) for Chinese, the blocking effect is enforced even if the first or second person pronouns are not possible antecedents. What determines the blocking effect, according to my hypothesis, in fact, is not the mere mismatch of features, but the fact that the speaker’s coordinate has to be taken into account in the interpretive process and therefore it blocks the LDA.

Going back to the discussion of the Chinese cases, the case in which the blocking effect is induced by a deictic identification of an intervening pronoun, as in example (109), is also accounted for. In this case too, the speaker’s coordinate is forced to intervene to assign the correct interpretation to the embedded clause.

Furthermore, it can be argued that the condition on blocking is an if and only if condition on anaphor interpretation. In other words, reference to the utterance event closes the domain and therefore forces the LDAs to be interpreted. On the other hand, if a LDA is interpreted, the domain is closed and cannot be reopened for the sake of anaphora interpretation.

The multiple anaphor case – cf. ex. (110) – can be accounted for by claiming that once the domain is closed, it cannot be reopened. The ungrammatical interpretations, (116) and (117), are those in which neither anaphor is interpreted locally – i.e., with WW as an antecedent – hence, they are both long distance bound: Their binding domains, however, are supposed to be different. In the interpretation (122) ziji\textsubscript{2} picks up as an antecedent the intermediate subject Lisi, requiring therefore the domain to be closed at that point. However, in order to interpret ziji\textsubscript{1} as the main subject Zhangsan, the domain has to be extended up to the main clause. As a consequence, a conflict arises and the interpretation is not admitted. The same happens in (117), for the opposite values of antecedents.

Consider now examples (118) and (119). In these cases, a temporal adverb appears in the embedded clause. As expected, the deictic adverb, this morning, defines the domain and blocks the anaphor. Recall that Chinese lacks morphological tense. A deictic adverb, in such a language, therefore, requires that in order for the embedded eventuality to be located with respect to the utterance event, all positions should be saturated. Therefore, the anaphor in (119) cannot pick up the main subject as an antecedent. Such an antecedent is available, on the contrary, for the anaphor in (118).

In Italian, the presence of temporal adverb does not affect the distribution of LDAs. Consider for instance the following case:

(120) Quell’artista spera che qualcuno compri le proprie opere prima di stasera.

That artist hopes that somebody buy(SUBJ) self’s works before tonight
The presence of the deictic time adverb, before tonight, does not block the LDA from referring back to the higher subject that artist. Again, in Italian – a language with morphological temporal marking – the interpretation of the adverb does not take place directly, but it is always mediated by the tense itself. Therefore if the tense does not require the speaker’s coordinate to be represented in the clause, the binding of the anaphor can proceed successfully. See also the discussion summarized in section 2.3. above on DAR contexts and anaphoric temporal locutions.

Finally, when there is no antecedent around, in Chinese the anaphor has to refer to the speaker:

(121) Zhe-ge xiangfa, chule zijī, zhiyou san-ge ren z ancheng. (Huang & Liu’s ex. 36)
This-CL idea, besides self only three people agree
As for this idea, beside myself, only three people agree

The speaker is the bearer of the attitude for the matrix clause, therefore in Chinese, where the reflexive is not marked for person, it qualifies as a possible antecedent. The same does not hold in Italian, where the speaker triggers first person agreement.

Let me briefly consider sub-command. Huang & Liu point out that sub-command is possible with clause-bound zijī and does not give rise to blocking effects:

(122) Zhangsan, de xin gen wo tandao-le zijīi (Huang & Liu’s ex. 78)
Zhangsan DE letter to me discuss-Perf self
Zhangsan’s letter discussed him, with me

The example in (122) contrasts with the following one:

(123) *Zhangsan, de shibai biaoshi tamen dui zijīi, mei xinxin (Huang & Liu ex. 79)
Zhangsan DE failure indicate that they to self no confidence
Zhangsan’s failure indicates that they have no confidence in him

From these examples the authors conclude that sub-command is not a property of LD binding. However, in a footnote to their paper, they remark the acceptability of LD binding in the following case:
(124) Zhangsan, de baogao biaoshi tamen dui ziji, mei xinxin

(Huang & Liu, fn. (18) ex. i)
Zhangsan DE report indicate that they to self no confidence
Zhangsan’s report indicates that they have no confidence in him

This contrast casts some doubts on their generalization – i.e., that sub-command is a property only of local binding. That Huang & Liu’s generalization cannot be right seems also to be challenged by the Italian data I illustrated in section 1.2.1, exx. (22)-(23), reproduced here:

(125) La propria salute turba i sogni di Gianni,
Self’s health disturbs Gianni’s dream

(126) Che la propria figlia sia andata in campeggio da sola turba i sogni di Gianni,
That self’s daughter went to camp by herself, disturbs Gianni’s dreams a lot

In these cases sub-command seems to be possible. Consider now the following examples:

(127) *La salute di Gianni, preoccupa molto la propria, moglie.
Gianni’s health worries self’s wife a lot

(128) *Che la figlia di Gianni, sia andata in campeggio da sola turba molto i propri, sogni.
That Gianni’s daughter went to camp by herself, disturbs self’s dreams a lot

In these cases we obtain the reverse judgment: sub-command is not possible, both when the antecedent is local and when it is a LD one. Concluding, it seems that the generalization discussed by Huang & Liu needs to be somehow amended. My proposal is that the possibility of taking a sub-commanding antecedent pertains to the LD strategy. Let me state the following generalization:

(129) Sub-command is possible if the phrase in which the bearer of the attitude appears is not in agreement with the verb.
In Chinese, there would be no question about agreement, therefore sub-command is always possible. In (122) there is no blocking effect because the first person is a co-argument of the antecedent. According to my hypothesis, this is crucial, given that the blocking effect prevents the anaphor from finding an antecedent further up in the sentence. Therefore, there is no reason to expect the blocking effect to hold in (122). Moreover, (123) is ungrammatical because there is no way in which Zhangsan can be understood as the bearer of the attitude, contrasting in this with the grammatical (124).\(^{57}\)

In Italian, sub-command is possible only with psych-verbs, because only in this case is the bearer of the attitude not in a phrase in agreement with the verb. Why does agreement with the verb matter? A possible answer could be that if an agreement relation has been enforced between a phrase and the TP, then the ILF cannot access anymore sub-parts of the phrase. In other words, the phrase is closed and saturated and its internal components are no longer visible to the effect of the interpretation of the clause, hence for binding purposes.

### 4.3. Some remarks on Japanese zibun

In this section I’m going to argue that some of the peculiarities of the distribution of the Japanese LDA zibun (self) can be traced back to the same blocking effect I have described in the previous pages. The problems connected with the distribution of this anaphoric item have been widely discussed in the literature, and I’m not going to provide a full account for all the facts which have been observed. However, I think it is worthwhile to make a couple of points which might be of interest for future research.\(^{58}\)

There is no DAR in Japanese, as discussed in Ogihara (1996, 1999). Namely, this language belongs to Russian/Chinese groups, where an embedded present tense does not (necessarily) have to denote an eventuality holding at utterance time. Given this consideration, we expect that the relevant antecedent for the anaphor has to be identified following strategies similar to those I discussed for Chinese. In this language as well, in fact, the representation of the speaker coordinate is not enforced because of the

\(^{57}\) Notice also that the explanation provided by the authors though expressed in terms of logophoricity is very close to the analysis presented here.

\(^{58}\) See, among the others, Kuno (1972; 1987), Sportiche (1986), Ueda (1986) and for a more recent analysis, Oshima (2004).
necessity of assigning the correct temporal interpretation, but its presence is due by other factors.
Kuno (1987), Sells (1987) and Oshima (2004) observe that in some cases speaker-evaluative expressions, such as *that fool* can be attributed not only to the speaker, but also to the subject of the saying predicate, when a speech act is involved (From Oshima, ex 38):

(130)  Takashi wa Taro ni baka-no/itosii Yoshiko ga Masao o oikakemawasite-i-ru to it-ta
       Takashi top Taro dat fool/beloved Yoshiko nom Masao acc chase around-asp-pres Comp say-past
       ‘Takashi told Taro that that fool/beloved Yoshiko was following Masao’

The expression fool/beloved can either be attributed to the speaker, or to Takashi – i.e., the subject of the saying predicate. Consider now the interaction with the distribution of *zibun* (from Oshima, ex. 39):

(131)  Takashi, wa Taro ni baka-no/itosii Yoshiko ga *zibun* no musuko o oikakemawasite-i-ru to it-ta
       Takashi, top Taro dat fool/beloved Yoshiko nom selfi gen son acc chase around-asp-pres Comp say-past
       ‘Takashi told Taro that that fool/beloved Yoshiko was following selfi’s son’

In a sentence with the long distance anaphor *zibun*, the speaker evaluative clause cannot be interpreted as due to the speaker, but can only be attributed to the main subject *Takashi*. This fact is reminiscent of the pattern I discussed with respect to the Chinese *ziji*. When the representation of the speaker is enforced in a certain clause, then all positions must be saturated. Therefore, in this case the account I proposed above seems to make the correct prediction when extended to *zibun* as well.

There is another phenomenon peculiar to Japanese, which has been discussed by many scholars, namely, the role of *empathy* in anaphora interpretation. The facts are very complex and not totally uncontroversial, but I would like to point out a consequence of my proposal, which might be verified in future research.

As pointed out originally by Kuno (1972), Japanese has several devices for representing the point of view from which a certain fact is described. A typical case is provided by the verbs used for expressing the concept of *giving*. The event can be described from the
point of view of the giver – by means of the verb *yaru* – or from the point of view of the receiver – by means of the verb *kureru*. Notice that in English, and Italian as well, the two points of view are lexicalized differently – as the verb *give* and the verb *receive* respectively. However in Japanese, contrary to these other languages, the structure of the sentence does not vary – i.e. the giver is always expressed as the subject and the receiver always appears in the dative.59

Consider for instance the following examples (from Kuno, 1987, p.246, see also the discussion in Oshima 2004):

(132)  **Taro** wa Hanako ni okane o *yar-u*  
Taro top Hanako dat money acc give-pres

(133)  **Taro** wa **Hanako** ni okane o *kure-ru*  
Taro top Hanako dat money acc give-pres  
‘Taro gives money to Hanako’

In example (132) the point of view from which the event is described in Taro’s, in (133) it is Hanako’s. As Kuno puts it, the speaker is *empathizing* either with the giver or with the receiver. Interestingly, if a first person pronoun is present, the verbal form must be the one taking the point of view of the speaker. I.e., if the speaker appears in the sentence as the giver, the selected form must be *yaru*. If the speaker appears as the receiver the selected form must be *kureru*.

This property interacts with the distribution of *zibun* in the following way: the antecedent of *zibun* must be the person from whose point of view the event is described (From Oshima 2004, exx. 17 a - b):

(134)  **Taro**, wa Hanako ga *zibun*, ni kasite-*kure*-ta okane o tukatte-sima-ta  
Taro top Hanako nom self dat lending-give-past money acc spending-end up-past  
‘Taro spent all the money that Hanako had lent to him’

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59. I’m simplifying the facts in several ways. Importantly, the two verbs can also work as so-called *supporting verbs*, or light verbs, and enter in complex lexical formations, giving rise to more or less the same range of effects. They also enter in benefactive/malefactive constructions.
In example (134) kureru identifies the dative as the prominent argument – i.e., Taro. Accordingly, Taro must be selected as the antecedent of the anaphor. If the counterpart yaru is used – which identifies Hanako as the prominent argument – the relation between zibun and Taro can no longer be established.

Tentatively, the following explanation could be proposed. Suppose first that these verbs in Japanese introduce an implicit argument, along the lines of Higginbotham (1987), as in the case of English nominals such as for instance self-inflicted wound, or self-starting motor. Such as implicit argument – which in Japanese, as remarked in the literature, can in certain cases also be used to refer to a beneficiary – has the same status as the LDA, in that it can be considered as an unsaturated position.

If this proposal is correct, then we can reduce this phenomenon to the case of multiple occurrences of ziji analyzed above. The domain for the overt LDA and for the implicit one must be the same. If, for instance, in a sentence like the one in (135), the verb yaru refers to Hanako – i.e., Hanako binds the implicit anaphor – then zibun cannot select an antecedent in the main clause. In example (134), on the contrary, the two unsaturated positions are both saturated by the subject of the main clause, Taro.\textsuperscript{60}

5. Conclusions and speculations

One of the consequences of this work is the reversing of the perspective about the feature specification of anaphors.\textsuperscript{61} From the point of view outlined here, in fact, it follows that it is not the case that anaphors need an antecedent because they aren’t specified enough, but on the contrary, that they aren’t enough specified because they

\textsuperscript{60} Saito (pc) suggested that the multiple anaphor effect found in Chinese in exx. (110) above, is also found in Japanese.

\textsuperscript{61} See Reuland & Sigurjónsdóttir (1997) and Reuland (2001b) for a discussion of this topic with respect to the Icelandic anaphor sig.
need an antecedent. Namely, they represent the way in which languages mark unsaturated positions.\footnote{Notice that Chierchia (1989) suggests that proprio (self’s) might be taken to be the lexical counterpart of PRO, as far as the de se interpretation is concerned. My opinion is that his perspective is correct, though it should be stated in much more general terms and doesn’t simply holds of the de se or first-personal reading.}

Saturation by identification is a local process, to be attained under c-command. The only unsaturated position that can stay empty is the subject of infinitival clauses – PRO – because it is not endowed with case. As it is possible to see, the theory of LDAs that I have sketched here permits to maintain quite a conservative view about some very basic questions such as the nature of empty positions and the locality of syntactic relations. This is a welcome result, since it permits to achieve new insights on the basis of minimal adjustments.

The first-personal effect, or de se reading, immediately follows from this framework because the binding of the anaphor is not a coreference process. Namely, the anaphor is not an item denoting something that can have independent properties, but is simply a marker for an unsaturated position. The LDA does not refer to an antecedent, but is identified with the antecedent – the anaphor and the antecedent are the very same thing – and whenever possible and natural, the LD must be first personal, since it could be nothing else. Let’s go back to the example discussed by Chierchia (1989), reproduced here:

(136) Gianni, pensa che i propri pantaloni siano in fiamme.

Gianni thinks that self’s pants are on fire

This sentence contains an unsaturated position marked by the anaphor, the position is later identified with Gianni.\footnote{On the other hand, if the context does not license a first-personal reading, in principle, there is no reason for the anaphor to be ruled out, as I pointed out in the discussion of examples (37) and (38). Some speakers however, might have a strong preference for the anaphor to be used exactly in the contexts in which the effect obtains, due to a specialization effect. The weakness of the effect, however, as compared to the real violations, exemplified by (39), suggests that my line of thought is correct.}

The notion of logophoric anaphor/pronoun has been widely discussed in the literature, and I considered here only some aspects of it. I tried to show that some traditionally
logophoric antecedents for LDAs are actually sentential, local, ones. A full discussion of the logophoric effect would lead me too far away from the main topic of this work. Among the other problems, is the lack of general consensus on the notion itself, so that for some linguists it only refers to pronouns of some African languages (see Hagège, 1974; Clements, 1975; Koopman & Sportiche, 1989) which are specialized for referring to the speaker, or the hearer, in certain contexts. For other scholars, it basically applies to everything which does not follow from principle A of the binding theory, for others it refers to discourse-bound reflexive pronouns, for others, finally, to combinations thereof.64

I would like however, to add a few words on some puzzling cases of logophoric anaphors, which take an antecedent in the discourse and not in the sentence, at least at first sight.

I already discussed one of such cases, namely, the discourse-bound ziji – see section 4 above – which can identify the speaker. I proposed that that case can be reduced to a simple case of local binding, given that the speaker is – and must be – represented in the clause at the interface level.65

I would like to consider now an interesting and rather puzzling difference between Italian and English. There are two classes of cases in which the English clause bound anaphor turns out to be non locally bound, at least apparently. On one hand, there are the so-called emphatic reflexives, studied by Keenan (1988, but see also Safir, 1992) and further analyzed by Zriba-Hertz (1989). On the other, there are the narrative reflexives, see Zriba-Hertz (1989, but see also Kuno 1972). Zriba-Hertz (1989) provides a wide variety of examples in which the self-anaphors – such as himself and herself – of the English language appear to be non clause bound, and often not even sentence bound, in that they seem to take an antecedent in the discourse. I’ll give here some of the relevant examples, in order to illustrate the points in question:

64. Interestingly, Koopman & Sportiche (1989) argue that logophoric pronouns in Abe should be accounted for as logical variables and that presumably this holds true of all so-called logophoric items. I’m sympathetic with their conclusions, even if the domain of investigation is very different from mine and the specific proposals are based on quite different assumptions.

65. On the analysis of ziji as a logophor and relevant discussion of the different notions of logophoricity see Pan (1997; 2001); Pollard & Xue (2001); Huang & Liu (2001). In particular, Pan (2001) points out that according to his notion of logophoricity, ziji is not a logophoric anaphor.
These men believe that Mary would never consider marrying a man less wealthy than themselves, (Safir, 1992, ex. 3a)

Questi uomini credono che Maria non prenderebbe mai in considerazione di sposare un uomo meno ricco di loro/ *se stessi

Milton warned Masha that she shouldn’t trust anyone but/ other than/ except himself, (Safir, 1992, ex 4a)

Milton avvisò Masha che (lei) non avrebbe dovuto fidarsi di nessuno tranne che di lui/*se stesso

Her acquaintance in Northam, she thought,would have considered such affection unnatural, and probably perverted, if not wholly insincere, and there was something in herself, that could not help but suspect it (…) (Zribi-Hertz, 1989, ex. 43a; text by: M. Drabble, 1967, Jerusalem the golden, Penguin, p.117)

Le sue conoscenze a Northam, pro pensò, avrebbero considerato il suo attaccamento innaturale […], e c’era qualcosa dentro di lei, /*se stessa, che non poteva fare a meno di sospettarlo

And that was exactly it, he thought, he really didn’t care too much what happened to himself; (Zribi-Hertz, 1989, ex. 48a; text by: P. Highsmith, 1973, The glass cell, Penguin, p.179)

Ed era proprio così, pro pensò, pro non gli importava davvero troppo di cosa gli sarebbe successo/ *cosa sarebbe successo a se stesso

Interestingly, the Italian stesso(same) anaphors – such as se stesso (himself) and se stessa (herself) cannot appear in these contexts, neither in the emphatic, nor in the narrative ones, as shown by the translations given above.

This fact is unexpected, because, in the local domain, Italian reflexives have the same distribution as the English ones. In other words, Italian clause bound anaphors are always really clause bound, whereas English clause bound ones are also allowed in a variety of other contexts.

Safir (1996) first investigated the question of the systematic differences between same-anaphors – in Italian and French, among the others –and self-anaphors – in English and Germanic languages in general.
On the basis of evidence totally independent from the considerations discussed in this work, he proposed that same anaphors can’t denote individuals, whereas self anaphors can. Presumably the explanation of this cross-linguistic differences I just outlined above must be looked for following Safir’s perspective. Namely, only anaphors which can denote an individual are acceptable in the LD, either emphatic or discourse, usage. This seems to be an important generalization, because it points to the conclusion that the interpretative properties, and namely, the interface level, determine the possible range of binding phenomena.

Let’s consider finally the cases discussed by Zribi-Hertz and reported above in (141) and (143). The antecedent of the anaphors is obviously not the speaker – in these cases, the writer. In both examples the antecedent is the person whose thoughts are reported – as shown clearly by the expressions she thought and he thought in (141) and (143) respectively. It is a well-studied fact – see among the others Zucchi (2001), Bonomi & Zucchi (2001), Schlenker (2004), and references cited there – that in narrative contexts anchoring phenomena do not proceed from the perspective of the speaker/writer, but from a different, text-internal, perspective. It is reasonable to hypothesize therefore, that in these cases, the thinker replaces the speaker and that therefore both temporal anchoring and anaphor binding exploit the thinker’s coordinate, instead of the speaker’s ones. If this consideration is correct, then many of these cases could be accounted for by the proposal we argued for in this work.66

66. Tancredi (1997) explores a similar possibility with respect to the interpretation of the English third person pronoun, in cases such as the following:

(i) Now he would be all alone (rowned Chris)  (Tancredi, 1997, ex. 4)

He proposes that the reference of the third person pronoun can be semantically determined via an Agent parameter – where the agent is the individual whose thought is expressed by the relevant expression. See also Schlenker (2003), and in particular Schlenker (2004) for an in-depth analysis of these contexts.
References

Long Distance Anaphors and the Syntactic Representation of the Speaker


