

Essential Indexicals and Quasi-Indicators

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Abstract

In this paper I shall focus on Castañeda's notion of quasi-indicators and I shall defend the following theses:

- Essential indexicals ('I', 'here' and 'now') are intrinsically perspectival mechanisms of reference and, as such, they are not reducible to any other mechanism of reference.
- Quasi-indicators (e.g. expressions like 'she (herself)') exist in natural language and cannot be explained away as merely reflexive pronouns.
- Quasi-indicators are the only mechanism that allows the attribution of an indexical reference. As such they must appear in *oratio obliqua* constructions.
- When linked to a referring NP, quasi-indicators, like anaphors, inherit their reference from the antecedent to which they are linked (and thus coindexed with). When linked to a quantified expression, quasi-indicators work like (quasi-indexical) bound variables.
- Quasi-indicators must be understood along the lines of logophoric pronouns (from 'logos' meaning discourse and 'phoros' meaning bearing or transporting). As such, they are best explained using such notions as *perspective* and *point of view*.

1 THE IRREDUCIBILITY THESIS

Uses of the first-person pronoun seem to have a special, privileged and primitive function. When you use it you refer to yourself while when I use it I refer to myself. The same story can be told about (paradigmatic) uses of 'now' and 'here'.¹ Their use is intrinsically tied to the time/location the agent uses them. They are tied, one could say, to the agent of the utterance's egocentric setting or coordinates. In what follows I shall concentrate on the first-person pronoun. What I shall say about 'I', though, can easily be generalized to the paradigmatic uses of 'now' and 'here'.

¹ I said *paradigmatic* uses insofar as, to adopt Kaplan's (1977, 1989) pure indexical *vs.* demonstrative distinction, 'here' and 'now' can also be used as demonstratives. If, when pointing to a map, one says: 'I'll go on vacation here', 'here' does not pick out the place of the utterance but the place pointed to. The same applies to 'now'. When watching a video, if one says, 'Now we visit the Mausoleum' 'now' is used to pick out the time when the video was recorded and not the time of the utterance. I discussed these 'deviant' uses in Corazza (2004a).

An individual, Jane, may believe that someone is making a mess without realizing that she herself is making a mess and thus without adjusting her behaviour and acting accordingly. One can look into a mirror and say ‘His zip is open’ without realizing that his own zip is open and thus without bothering to close it. Only when one comes to entertain the thought expressed by ‘My zip is open’ one is likely to feel embarrassed and close it. Examples such as these lead people (Castañeda, Chisholm, Lewis, Perry, to name only few) to claim that the first-person pronoun is irreducible to other mechanisms of reference. It is, to adopt Perry’s happy expression, an *essential indexical* (see Perry 1979).

The way I understand Castañeda’s and Perry’s central thesis is as follows: the first-person pronoun has a *cognitive impact*, for it triggers self-centred behaviour. A similar story can be told about the indexicals ‘now’ and ‘here’; they trigger self-centred behaviours as well.² This phenomenon has been popularized under the label the *Irreducibility Thesis* and can be summarized as follows:

IT(oratio recta)

The first-person pronoun cannot be explained away or replaced by a co-referring term without destroying the cognitive impact its use conveys.

The question that springs to mind is: How do we attribute, from a third-person perspective, a use of the first-person pronoun? (Castañeda 1966, 1967, 1968) created an artificial pronoun, ‘she★/he★/it★’, to represent in an attitude ascription the use (maybe only implicitly) of the first-person pronoun. ‘Sue says that she★ is rich’ represents Sue as saying ‘I am rich’. These artificial pronouns are called ‘quasi-indicators’ and, Castañeda claims, are the only mechanism enabling the attribution of indexical reference from the third-person perspective. They are, therefore, the only tools which allow us to capture the cognitive impact conveyed by the essential indexicals—‘she★’ captures the cognitive impact conveyed by ‘I’, ‘then★’ the cognitive impact conveyed by ‘now’ and ‘there★’ the one conveyed by ‘here’. It is an accident of English that a single pronoun ‘she/he/it’ can be used to perform very different speech acts.³ Following this suggestion we can say that the

² ‘So replacing the indexical “I” with another term designating the same person really does, as claimed, destroy the force of explanation’ (Perry 1979: 29).

³ ‘It is a mere accident of grammar that the same physical objects are used in different logical roles. The underlying rationale is this: Indicators are a primary means of referring to particulars, but the references made with them are personal and ephemeral; quasi-indicators are the derivative means of making an indexical reference both interpersonal and enduring, yet preserving it intact’ (Castañeda 1967: 207).

Irreducibility Thesis presents itself under two distinct guises, the *oratio recta* guise and the *oratio obliqua* guise:

IT(oratio obliqua)

In an *oratio obliqua* construction the cognitive impact conveyed by a use of the first-person pronoun can only be captured by the quasi-indicator ‘she★/he★/it★’.

Castañeda claims that the proposition expressed by an utterance containing the first-person pronoun is different from any proposition expressed by an utterance where the first-person pronoun is replaced by a co-referring expression. Thus Jon’s utterance of ‘I am making a mess’ and my utterance of ‘Jon is making a mess’ would never express the same proposition (see Castañeda 1989). More recently Castañeda also claimed that an ‘I’-utterance and the corresponding quasi-indexical utterance cannot express the same proposition either.⁴ I am not convinced by the idea that an utterance containing the first-person pronoun cannot express the same proposition as an utterance containing a co-referential term. I also believe that one’s utterance of, say, ‘I am rich’ and the report ‘S/he said that s/he★ is rich’, insofar as ‘I’ and ‘s/he★’ are coreferential, do relate both the attributee and the attributer to the very same proposition, having the attributee her/himself as a constituent. In other words, I sit with Perry when he claims that a given proposition can be apprehended in many different ways.⁵

Unlike Perry (1983) and many others, however, I do not believe that quasi-indicators can be explained away merely as a pragmatic phenomenon. I now turn to the discussion of the existence of quasi-indicators in natural language and their semantic relevance.

2 IN SEARCH OF QUASI-INDICATORS

Chierchia (1989) proposes two arguments that can be viewed as suggesting that quasi-indicators exist in natural language. In other words, Chierchia’s arguments, as I understand them, prove that Castañeda’s artificial pronouns ‘she★/he★/it★’ and the like do represent, after all, an existing phenomenon. Chierchia’s first argument concerns

⁴ See his correspondence with Adams (Castañeda 1983).

⁵ ‘We have here a metaphysical benign form of limited accessibility. Anyone at any time can have access to any proposition. But not in any way. Anyone can believe of John Perry that he is making a mess. And anyone can be in the belief state classified by the sentence “I am making a mess”. But only I can have that belief by being in that state’ (Perry 1979: 41).

unpronounced subjects of infinitive clauses, which linguists call PRO—PRO represents the null pronominal element acting as the syntactic subject of infinitives and gerunds. In other words, PRO is viewed as the null analogue of lexical pronouns.

PRO qua de se pronoun

The unpronounced subject of an infinitive clause is generally used to report an ‘I’ or *de se* thought.⁶

Imagine that after a night with lots of wine, to cure his hangover Agassi turns on the television and watches a tennis match. The game he ends up watching features the match he played two days ago, but he does not realize that the bald tennis player is he himself. Agassi finds the bald player utterly annoying and comes to hope that he loses the tournament. In this situation, a self-ascription like (1a) will be appropriate, while a self-ascription like (1b) would not:

- (1) a. I hope that he will lose the tournament.
b. I hope to lose the tournament.

From a third person-perspective (1a) and (1b) could be reported as:

- (1) c. Agassi hopes that he will lose the tournament.
d. Agassi hopes to lose the tournament.

While (1c) captures Agassi’s mental state, (1d) does not.

The unpronounced subject (PRO) in (1b) and (1d) can only be understood as attributing an ‘I’-thought.⁷ On the other hand, (1a) and (1c) must be understood *de re*. I shall represent this peculiarity of PRO by adopting Castañeda’s notation and add a ‘★’ to form ‘PRO★’. The star simply signals that the report is *de se*. If I am right (1d) can be represented as:

- (1) e. Agassi₁ hopes [PRO₁★ to lose the tournament]⁸.

⁶ An attribution like, ‘Pavarotti very much wants to get help’ entails ‘Pavarotti very much wants for Pavarotti to get help’ but not conversely. That is, a *de se* attribution entails a *de re* one, but a *de re* ascription does not necessarily entail a *de se* one. ‘This explains why PRO, the subject of infinitives, will in general be interpreted *de se*, and unambiguously so’ (Chierchia 1989: 16).

⁷ Schlenker (2003), in discussing Chierchia’s datum, makes a similar point. Schlenker proposes a sophisticated treatment of *de se* ascriptions, resting on the notion of context shifting. On this account a quasi-indicator picks out an object directly from a context. Given that ‘she★’ can only be used in a reportive context and since, in general, the reported context is distinct from the context in which the report is uttered, a token of ‘she★’ will pick out an individual directly from a context quantified over by an attitude verb. As it will become clear, however, the picture I suggest does not appeal to context shifting; it exploits the anaphoric feature of quasi-indicators. For an extensive discussion and criticism of Schlenker’s theory, see Whitsey (2003).

⁸ Chierchia (1989: 15) interprets PRO as a property-abstractor. An infinitive clause like ‘PRO to eat cheese’ will thus be interpreted as ‘ $\lambda x[x \text{ eats cheese}]$ ’. As it will become clear in the last section I do not follow Chierchia on this interpretation.

One could object that ‘Jon wants a beer’ also means that Jon wants a beer for himself. So, why should we posit quasi-indicators in the case of infinitival clauses? Of course, there may be circumstances in which one means that Jon wants a beer for someone else, say Jane, with an utterance like ‘Jon wants a beer’. If Jon is a waiter and Jane is a customer, ‘Jon wants a beer’ is likely to mean that Jon wants a beer for Jane. The difference between an utterance like ‘Jon wants a beer’ and ‘Jon wants a beer *for himself*’ can be traced to the fact that ‘for himself’ in the latter puts the stress on Jon, i.e. on the fact that Jon does not want a beer for Jane, say. The moral seems to be that we *never* posit the existence of quasi-indicators. In particular, in the case of infinitival clauses we do *not* posit quasi-indicators.⁹ I claimed only that PRO in (1e) should be understood as a quasi-indicator. We do not posit PRO, for it is required by syntax. Thus, while we do not have to posit hidden quasi-indicators to capture the fact that in many circumstances ‘Jon wants a beer’ means that Jon wants a beer for himself we should understand PRO in many infinitival clauses, i.e. the clauses which must be understood to be *de se*, along the lines of a quasi-indicators. With the same token I can claim that we do not posit quasi-indicators when dealing with attitude ascriptions of the form ‘Mary believes that she (herself) is rich’. I only claim that the pronoun ‘she (herself)’ must be understood as a quasi-indicator and that ascriptions of the form ‘Jane hopes to win the lottery’ and ‘Jane hopes that she (herself) wins the lottery’ must be understood on a par as *de se* attributions. They can be represented, respectively, as ‘Jane hopes PRO* to win the lottery’ and ‘Jane hopes that she* wins the lottery’.

Before going further it is worth stressing how quasi-indicators, *de se* pronouns and PRO relate to one another. As far as I can see, the main difference between PRO and a quasi-indicator like ‘s/he*’ rests on the fact that, in some cases, PRO is not used as a *de se* pronoun. In:

- (2) a. Bush obliged/forced/ ... Blair PRO to invade Iraq.
 b. Italy has been persuaded/convinced/ ... by the USA PRO to support a unilateral invasion of Iraq.

PRO does not attribute to Blair or Italy an ‘I’-thought; as such it is not a *de se* pronoun. In short PRO, like the pronoun ‘s/he’, can have two

⁹ A way to understand this kind of emphatic use of the reflexive would be in a similar way to the use of particles like ‘exactly’, ‘precisely’ and ‘just’ in utterances like ‘Ivan is just/exactly/precisely the student Jane was looking for’. As König suggests: ‘[these particles] are primarily used emphatically to assert the identity of one argument in a proposition with an argument in a different, contextually given proposition. Such an identification may be achieved via exclusion. This is probably the right analysis for G. *genau* and E. *exactly, precisely, and just*’ (König 1991: 127).

interpretations, one *de re* and one *de se*. For this very reason, we can adopt Castañeda's notation and distinguish between PRO and PRO[★]. This distinction parallels the distinction between 's/he' and 's/he[★]'. Unlike the pronoun 's/he', though, the *de se* interpretation of PRO is grammatically forced. In:

- (3) George W. Bush wants PRO to steal Iraq's oil.

PRO *must* be understood as PRO[★], while in

- (4) Tony Blair said that he wants to steal Iraq's oil.

'he' can be understood either as 'he' or 'he[★]'. In short, grammar alone tells us whether we have PRO or PRO[★], while in the case of 's/he' in an *oratio obliqua* construction we have to appeal to extra-grammatical features before the interpretation (either as 's/he' or as 's/he[★]').

The second argument in favour of the *de se* interpretation proposed by Chierchia focuses on the different ways we can understand inferences like:

- (5) a. Jane believes she is a millionaire.
 b. Sue believes whatever Jane believes.
 c. Therefore, Sue believes she is a millionaire.

Assuming that there is co-reference between 'Jane' and 'she' in the first premise (and thus that they are coindexed), the conclusion can be understood in different ways, meaning either that Sue believes that Jane is a millionaire (*strict inference*) or that Sue believes that she herself is a millionaire (*sloppy inference*).

- (6) a. Jane₁ believes she₁ is a millionaire.
 b. Sue believes whatever Jane believes.
 c. Therefore, Sue₂ believes she₁ is a millionaire.
- (7) a. Jane₁ believes she₁ is a millionaire.
 b. Sue believes whatever Jane believes.
 c. Therefore, Sue₂ believes she₂ is a millionaire.

Chierchia (1989) claims that with the strict inference the belief attribution to Sue is understood *de re* while, with the sloppy inference, it must be *de se*. As I understand this, the pronoun 'she' in a sloppy inference must be understood as a quasi-indicator attributing an 'I'-thought to Sue. As a first approximation we can say that, in English, a pronoun like 'she' is multiply ambiguous in an attitude ascription. It

can either be: (i) a demonstrative referring to the individual indicated by the reporter (e.g. 'Jane₁ believes that she₂ [pointing to Mary] is rich', (ii) a simple anaphor (e.g. 'Jane₁ believes that she₁ is rich, but she₁ (herself)/she₁* does not realize that she₁ (herself)/she₁* is rich'), or (iii) a quasi-indicator (e.g. 'Jane₁ believes that she₁* is rich'). It should be noted, however, that this does not constitute an exhaustive classification of pronouns. For, possessive pronouns exhibit the very same ambiguity, yet they need not appear in an *oratio obliqua* construction (e.g. 'Today Jane is wearing *her new hat*' can mean either that Jane is wearing her own hat or someone else's, say Mary's, hat, while 'Jane said that *her hat* was new' can mean (i) that Jane said that her own hat was new, (ii) that someone else's hat was new and (iii) that Jane said of her hat that it is new without knowing that it is her own).

It may be instructive to mention that Bosch's distinction between referential uses and non-referential, syntactic uses, of pronouns does not help us to distinguish between quasi-indicators and other pronouns either. According to Bosch in the case of syntactic pronouns the relationship between the anaphoric pronoun and its antecedent is syntactically constrained and it is not influenced by contextual or other features pertaining to the discourse situation. Only in the case of referential anaphora contextual features can enter the scene in determining the anaphoric link.¹⁰ It emerges that, although Bosch's notion of syntactic pronouns covers some uses of quasi-indicators, it also covers the use of other pronouns (e.g. certain possessive occurrences). More importantly, it does not recognize so-called intersentential anaphora. In 'Jon₁ played poker. *He*₁ lost a lot of money' and 'Jon: Will you be here₁ tonight? Jane: I believe that I am unable to be *there*₁* before midnight'), the pronoun 'he' and the quasi-indicator 'there*' work as intersentential anaphors. As such, their resolution cannot be determined by syntax alone. In particular, intersentential anaphora do not obey principle A of Government and Binding Theory whichever way one spells it out.¹¹ Hence, some uses of quasi-indicators cannot be subsumed under the category of syntactic pronouns.

¹⁰ 'According to our considerations of 'anaphora' and context dependence ... there should not be any constraints of a syntactic nature on the interpretation of properly anaphoric (and hence referential) pronoun occurrences. Only SPs can be so constrained, and all other pronouns are subject to influence from context and speaker's intentions—factors we assume can in principle not be grasped in terms of syntax.' (Bosch 1983: 163)

¹¹ A way to state Principle A is as follows (see Pollard & Sag 1992: 263):

Every anaphor must be coindexed with a NP in an appropriately defined command relation, within an appropriately defined minimal syntactic domain.

The main questions (and disagreements) focus on how the command relation and the minimal syntactic domain should be specified. This debate, however, transcends the scope of my paper. It is

As further evidence in favor of the existence of quasi-indicators we can quote the behavior of the Italian reflexive ‘proprio’ [self]. In an ascription like (the example comes from Chierchia 1989: 24):

- (8) a. Pavarotti crede che i *propri* pantaloni siano in fiamme.
[Pavarotti believes *self* pants are on fire]

‘proprio’ forces the *de se* reading. If, instead of the reflexive ‘proprio’ we had the non-reflexive pronoun ‘suoi’ [his], we could have both the *de re* and the *de se* interpretation:

- (8) b. Pavarotti crede che i *suoi* pantaloni siano in fiamme.¹²
[Pavarotti believes that *his* pants are on fire]

Furthermore, (9a) is not contradictory, while (9b) is. (9b) mirrors the contradictoriness of (9c) (the examples come from Bonomi, quoted in Chierchia 1989):

- (9) a. Pavarotti crede che i *suoi* pantaloni siano in fiamme. Ma non si è accorto che i pantaloni sono i propri.
[Pavarotti believes that his pants are on fire. But he has not realized that the pants are his own]
- b. ★ Pavarotti crede che i *propri* pantaloni siano in fiamme. Ma non si è accorto che i pantaloni sono i propri.
[Pavarotti believes that *self* pants are on fire. But he has not realized that the pants are his own]
- c. ★ Pavarotti crede di avere i pantaloni in fiamme. Ma non si è accorto che i pantaloni sono i propri.
[Pavarotti believes [PRO to have burning pants]. But he has not realized that the pants are his own]

It seems then that ‘proprio’ in Italian works like PRO. As such, it provides a way to single out *de se* ascriptions. The Italian ‘proprio’ comes close to the quasi-indicator ‘s/he★’ and it may provide further evidence of the existence of quasi-indicators in natural language. This shows, at the very least, that quasi-indicators exist in Italian. If we recognize that they exist in Italian, why not welcome them in English as well? In other words, we have further cross-linguistic evidence that quasi-indicators exist in natural language.¹³ We can

also worth stressing that the (traditional) notion of anaphor I am relying on here is not the same as the syntactic GB notion, for Principle A never cover intersentential coreference.

¹² Other languages also mark this difference. In Norwegian, for instance, (8a) would translate as ‘Pavarotti tror at *sine* bokser brenner’ while (8b) would translate as ‘Pavarotti at *haus* bokser brenner’.

¹³ It is also worth mentioning the etymological similarities between English and Italian. It is thus unlikely that they have any major logical differences, so we should assume indicators exist in any sufficiently similar language.

thus verify Castañeda's claim that it is a mere accident of (English) grammar that the same physical objects ('s/he' and the like) are used in different logical roles. It is an open question why English, unlike other languages, did not evolve in such a way as to grammatically stress or morphologically mark quasi-indicators.¹⁴

To stress the need for quasi-indicators, we can focus on Castañeda's data: imagine that Privatus, an amnesiac, has forgotten his name. In reading an article reporting that Privatus is the lucky winner of last night's lottery, Privatus comes to entertain the belief that Privatus is a millionaire. Given this situation the following three attributions can be true together:

- (10) a. Privatus believes that Privatus is a millionaire.
 b. Privatus believes that he is a millionaire.
 c. I do not believe that I am a millionaire [said by Privatus].

For these reports to capture Privatus' attitudes, (10b) must be *de re*. As such the pronoun 'he' does not attribute to Privatus a particular way of thinking about himself. Actually (10b) could continue as:

- (10) d. Privatus believes that he is a millionaire but he does not realize (he does not believe) that he himself (he[★]) is a millionaire.

On the other hand, a self-attribution like (10c) specifies the way Privatus thinks about himself, i.e. that he thinks in the first-person way and thus that he entertains an 'I'-thought. From a third-person perspective, Privatus' self-ascription (10c) should be rendered as:

- (10) e. Privatus does not believe that he himself (he[★]) is a millionaire.

If 'he' in (10b) were understood as a quasi-indicator (10e) would contradict (10b).

3 QUASI-INDICATORS, COINDEXATION AND DEPENDENCE

It is worth noticing that Fiengo & May's (1994) dependency theory does not allow us to capture Castañeda's datum. Actually, a *de re* report like (10b) can be represented either as (10f) or (10g):

¹⁴ In some African languages (mainly of the Eastern branches of Niger-Congo) such as Dogon, Ewe, Tupuri, etc. quasi-indicators (which, as we shall see in the next section, should be viewed along the lines of logophoric pronouns) are morphologically marked and morphologically distinct from personal and reflexive pronouns. On how logophoric pronouns appear and are marked in these languages see, for instance, Hagège (1974); Clements (1975); Culy (1994, 1997). The term 'logophoric pronoun' was introduced by Hagège (1974).

- (10) f. Privatus_1^i believes that he_1^i is a millionaire.
 g. Privatus_1^i believes that he_1^d is a millionaire.

where the subscripts signals co-reference.¹⁵ The superscript ‘*i*’ signals independence—if the NP is a singular (referential) term its reference does not depend on the reference of another noun phrase. The superscript ‘*d*’ signals that the pronoun’s value is dependent—i.e. it is inherited from the value of the noun phrase it is coindexed with. When a pronoun is coindexed with a referential expression, the former is coreferential with the latter. Before going further it is worth stressing that the picture I have in mind does not commit us to a particular theory of anaphora. In particular, it does not commit us to the view that anaphoric pronouns must be bound. Under the label ‘anaphora’ I am happy to subsume all NPs which are *referentially defective*, regardless of whether they are bound or not. A NP is referentially defective when its value is (at least partly) determined by another NP which can be recovered in the stretch of discourse. Hence, when an expression bears a ‘*d*’-occurrence I simply mean that its semantic value is *mediated* by a relation to some other referential expression. This mediation can be of varying natures; it can be syntactic or partly pragmatic (as in the case of so-called unbound anaphors) and, as such, governed by discourse considerations. In particular, according to the picture I have in mind (which differs from Fiengo & May’s dependency theory in this respect), ‘*d*’-occurrences are not limited to intrasentential anaphor but can be found in intersentential contexts.¹⁶ This will become particularly evident when we consider logophoric pronouns in the next section.

When a pronoun is bound by a quantified expression it works like a bound variable. In that case the antecedent of the pronoun is a variable (e.g.: $\text{Everyone}_1[e_1^i$ wears his_1^d hat]). As such it cannot be coreferential

¹⁵ It may be worth mentioning that while coindexed referring NPs are co-referential, non-coindexation does not mean non-co-reference. If, in answering the question ‘Who left?’ one says:

(i) He_1 put Jon_2 ’s coat on

what is said may well be consistent with ‘he’ and ‘Jon’ being coreferential (see Fiengo & May 1994: 3). This example comes from Higginbotham (1985: 570) who acknowledges Nancy Brownman. As Reinhart writes: ‘Since pronouns can select their reference outside the sentence (either deictically or from an antecedent in previous discourse), the mere fact that a pronoun is not coindexed with a given NP in the sentence is not sufficient to prevent it from receiving the same referential interpretation from an extra sentential source’ (Reinhart 1983: 48).

¹⁶ ‘Two important properties of Dependence theory can be noted immediately. First, β -occurrences are limited to the domain of dependencies, that is, to phrase markers. Hence, pronouns anaphoric on elements outside their phrase markers must bear independent α -occurrences; β -occurrences cannot resolve outside their structure. It follows, then, that dependencies are a property of intrasentential anaphora; they are not found in intersentential contexts’ (Fiengo & May 1994: 54). Fiengo & May use ‘ β ’ when I use ‘*d*’ and ‘ α ’ when I use ‘*i*’.

with the latter; the pronoun is realized as another occurrence of the variable.¹⁷ The subscripts mark the link between the quantifier and the pronouns. It is worth stressing that the anaphoric dependence, between an anaphoric pronoun and its antecedent is marked by the superscript, for only a pronoun marked with the superscript ‘*d*’ can be said to be anaphoric on another NP. Two proper names can bear the same subscript (e.g.: ‘Tully₁ shaved Tully₁’, ‘Tully₁ is Tully₁’), yet they are not anaphoric on one another, for proper names are always referentially independent and will always bear an ‘*i*’ as superscript.

In short, the pronoun ‘he’ in (10c) can be understood either as a demonstrative working like a free variable—this is the representation (10f)—or as an anaphor linked with ‘Privatus’—representation (10g). A representation like (10g), though, does not attribute a *de se* attitude to the attributee. Only an attribution with the quasi-indicator ‘s/he★’ can capture the *de se* nature of an attitude, for an attribution like (10d) would be:

- (10) h. Privatus₁^{*i*} believes that he₁^{*d*} is a millionaire but he₁^{*d*} does not realize that he himself is a millionaire

If (10d) were represented as:

- (10) i. Privatus₁^{*i*} believes that he₁^{*d*} is a millionaire but he₁^{*d*} does not realize that he₁^{*d*} is a millionaire

we would have a contradiction, i.e. we would state that Privatus both believes and does not believe that he is a millionaire. If we aim to capture Privatus’ different attitudes *vis-à-vis* himself, we must appeal to the quasi-indicator ‘he★’. Hence, in order to capture the nature of *de se* ascriptions, a theory appealing to dependences must be enriched.

A *de se* attribution like (10c) can be rendered, from the third-person perspective, as:

- (10) j. Privatus₁^{*i*} does not believe that he₁^{*d*★} is a millionaire

where the ‘★’, following Castañeda’s notation, signals that the anaphoric pronoun is a quasi-indicator. Our formal language will thus have:

¹⁷ See Fiengo & May (1994: 75).

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- ‘she/he/ it_n^i ’ = an independent pronoun, working like a free variable.
- ‘he/she/ it_n^d ’ = an anaphoric pronoun which can either inherit its value from the noun phrase with which it is coindexed, or else be a bound variable.
- ‘he/she/ $it_n^{d\star}$ ’ = a quasi-indicator which can either inherit its value from the noun phrase with which it is coindexed *and* attribute an ‘I’-thought to the referent of that noun phrase, or else be a bound (quasi-indexical) variable.

The fact that pronouns and reflexives behave in an unusual way when embedded in attitude reports is well known and documented. In Latin indirect discourse, for example, we have reflexive pronouns instead of personal pronouns (see Kuno 1987: 105):

- (11) *Petiērunt ut sibi licēret.*
 begged so-that to self be-allowed
 (They begged that it might be allowed them)

This feature of reflexive pronouns has not been unnoticed. Thus it has been suggested that, when reflexive pronouns are embedded in that-clauses, certain rules should be obeyed. Allen & Greenough (1883, 1903: 181), for instance, notice that when a subordinate clause expresses the words or thoughts of the subject of the main clause, the reflexive is usually used to refer to the subject of the attitude. The latter may not be the grammatical subject; it may merely be the subject of the discourse. Conversely, if the ‘that’-clause does not express the words or thought of the subject, the reflexive is not usually employed.

It is also of interest to note that so-called logophoric languages morphologically mark the distinction between ‘he/she/ it_n^d ’ and ‘he/she/ $it_n^{d\star}$ ’. Logophoric pronouns are used to refer to the person whose attitudes are being reported. Pure logophoric languages are languages in which these pronouns are used *only* as logophors and not as other reflexives or in emphatic uses. Tabury, for instance, distinguishes between the third person pronoun *qua* anaphoric pronoun, ‘à’, and the third person pronoun *qua* quasi-indicator (logophoric pronoun), ‘sè’ (see Hagège 1974: 299):

- (12) a. á Dík lí m̄āy mà:gā à kó n sú: m̀ònò.
 [He₁ⁱ thinks of the young girl that he₁^d saw yesterday]
- b. á Dík lí m̄āy mà:gā sé kó n sú: m̀ònò.
 [He₁ⁱ thinks of the young girl that he₁^d★ saw yesterday]

As a first approximation we could say that, while attributions containing ‘she/he/it_nⁱ’ and ‘she/he/it_n^d’ represent *de re* attributions, attributions with ‘she/he/it_n^{d★}’ represent *de se* attributions. This classification, though, is far from exhaustive, for we can have mixed cases, i.e. attributions that are partly *de re* and partly *de se*. Overhearing Jon saying: ‘Sue and I are the only winners of last night’s lottery’, Sue can report:

- (13) a. Jon₁ believes that we_{1★⊕2}ⁱ are millionaires.¹⁸

It is worth mentioning that the pronoun ‘we’ is both independent (insofar as it partly picks out its reference independently of the occurrence of another NP) and dependent (insofar as it partly inherits its reference from another NP). This captures the fact that mixed reports like (13a) attribute an ‘I’-thought to Jon and, as such, are *de se*. At the same time, though, the pronoun ‘we’ also works as an independent pronoun picking out the reporter and, as such, it is *de re*. In other words, a report like (13a) is a mixed report insofar as it specifies the attributee’s, Jon’s, attitude *vis-à-vis* himself, yet it is silent on the way Jon thought about the reporter. To understand this difference we could argue that a report like (13a) is a shortened version of:

- (13) b. Jon₁ⁱ believes that he_{1★}^d is a millionaires and that I₂ⁱ am a millionaire

where ‘I’ makes it clear that the reporter does not specify the way in which Jon thought about the attributer, i.e. ‘I’ does not attribute to Jon a specific mechanism of reference. Let us characterize this phenomenon *the attribution indeterminacy*.

Multiple embedded reports bring in indeterminacy as well. Consider:

- (13) c. Sue₁ⁱ believes that Jon₂ⁱ knows that she_{1★}^d is a millionaire

where the quasi-indicator ‘she★’ attributes an ‘I’-thought to Sue and, as such, specifies the way she thought about herself, but is silent on the way Jon thought about Sue. All we can stipulate is that there

¹⁸ Plurals with split antecedents, such as ‘Jon told Sue that they are millionaires’, are represented as:

(i) Jon₁ told Sue₂ that they_{1⊕2} are millionaires.

where ‘1 ⊕ 2’ signals that the index of the plural is the fusion of the indices of its antecedents. It is an open question whether in our example the predicate of being a millionaire holds of the antecedents individually or collectively, i.e. whether the plural reference is distributive or collective (see Fiengo & May 1994: 39).

is *a* way Jon referred/thought about Sue, but that the report does not specify which one. For this reason, the report is indeterminate.¹⁹ Reports can be more or less indeterminate, depending on how much information regarding the attributee is left unspecified. In a multiple embedded report involving quasi-indicators, whatever is unspecified is easily noticed. It is a matter of grammar that a report like (13c), for instance, is silent on the way in which Jon thought about Sue. Other reports, though, are far more enigmatic, for indeterminate reports do not always present themselves under the (*de re*) guise: ‘Of *NN*, *A* believes/wishes/ . . . that she/he/it is *F*’. A report like ‘Columbus believed that Santo Domingo was China’, for instance, does not specify the way in which Columbus thought about Santo Domingo, insofar as we assume that Columbus did not have the name ‘Santo Domingo’ at his disposal to refer to the island he landed on. Hence reports that present themselves under the (*de dicto*) guise ‘*A* believes that *NN* is *F*’ may be indeterminate as well.

The indeterminacy problem, however, should not come as a surprise if we remember that, in most cases, reports are *audience-directed*. It is often the case that, in order to pass to the audience a given message, a report needs to be amended and cannot be faithful. If I hear Jon saying ‘A vixen made a mess in my garden’ and I intend to report what he said to someone who does not know that vixens are female foxes (e.g. to a child or a foreigner with an incomplete mastery of English), I probably end up reporting ‘Jon said that a female fox made a mess in his garden’ and, in so doing, I will not report that Jon used the word ‘vixen’. The success of communication often requires amendments of this type. There is thus a tension between communicating *what* is believed and *how* it is believed, i.e. the *what* and the *how* do not always go hand in hand.

4 QUASI-INDICATORS, LOGOPHORIC PRONOUNS AND ANAPHORA

In this section, I shall discuss how quasi-indicators differ from anaphoric pronouns and how they compare with logophoric pronouns. As a first approximation, we can say that the indexical use of a pronoun refers

¹⁹ Besides, multiple-embedded reports containing quasi-indicators can be ambiguous with regard to the antecedent they are coreferential with. ‘Jane thought that Mary believes that she* is rich’ licenses both readings: (i) ‘Jane₁ thought that Mary₂ believes that she₁* is rich’ and (ii) ‘Jane₁ thought that Mary₂ believes that she₂* is rich’. Curiously enough, a similar phenomenon occurs with the logophoric pronoun ‘yé’ in Ewe. ‘Kofi xɔ-e se be Ama gblɔ be yé-fu-i’ can be translated either as ‘Kofi₁ believes that Ama₂ said that he₁ beat her₂’ and ‘Kofi₁ believes that Ama₂ said that she₂ beat him₁’ (see Clements 1975: 173).

without contributing any information other than that conveyed by its linguistic meaning (such as the number and gender of the referent, which are dictated by the grammatical features of the pronoun). As for anaphoric pronouns, they may or may not be referential terms. If they are linked (coindexed) to a singular referential term, they contribute its referent to the proposition expressed, whereas if they are bound by a quantifier, they are not referential but instead work like bound variables. As we saw, whether an anaphoric pronoun is referential or not depends on the NP with which it is coindexed: if it is coindexed with a referential expression it is referential while if it is coindexed with a quantified NP it works like a bound variable.²⁰

It is instructive to report that first-person and second-person reflexives can occur without an antecedent, contradicting the very idea that a reflexive pronouns must have an antecedent binding it (see Reinhart & Reuland 1991: 311):

- (14) a. This paper was written by Ann and *myself*.
 b. Apart from *myself* only three members protested.
 c. Physicists like *yourself* are a godsend.

Reinhart & Reuland suggest that we cannot explain away these reflexives as being merely deictic expressions. If this were the case, we would be unable to explain the difference between (15) and (16):²¹

- (15) a. She . . . gave both Brenda and *myself* a dirty look.
 b. The chairmen invited my wife and *myself* for a drink.
 (16) a. * She gave *myself* a dirty look.
 b. * The chairman invited *myself* for a drink.

If ‘*myself*’ were a simply deictic pronoun, then it should be free from grammatical constraints (it would be unbound) and (16a–b) should be well formed. (16a) and (16b) would be treated along the lines of the pronoun ‘*me*’ in:

- (17) a. She gave *me* a dirty look
 b. The chairman invited *me* for a drink

The general moral seems to be that reflexive pronouns escape strict grammatical rules (in particular some uses do not obey Principle A). Further examples are furnished by picture noun reflexives:

²⁰ For argument’s sake, I intentionally ignore the case of an anaphoric pronoun coindexed with an empty term, such as ‘*he*’ in ‘Tonight Santa₁ will come down the chimney and *he*₁ will bring you lot of presents’.

²¹ Example (15a) comes from Roth, quoted in Reinhart & Reuland (1991). The others come from Reinhart & Reuland (1991: 312).

- (18) a. The fact that there is a picture of himself₁ hanging in the post office is believed (by Mary) to have disturbed Tom₁.
 b. The picture of herself₁ on the front page of the *Times* confirmed the allegations Mary₁ had been making for years.
 c. John₁ was furious. The picture of himself₁ in the museum had been mutilated.²²

Pollard & Sag (1992) characterize these reflexives *exempt* insofar as Principle A does not apply to them. Furthermore, in (18c) the antecedent of the reflexive does not even appear in the same sentence. We thus have a case of intersentential anaphora. As far as Principle A is concerned, quasi-indicators seem to share some of the feature of exempt anaphors. In particular, they may be coindexed with an antecedent that appears in another sentence:

- (19) a. In January 1999₁ Igor₂ visited Paris₃. He₂ believed that he₂[★] would find a job there₃[★] and then₁[★].
 b. Next Monday₁ Jane₂ will be 18. She₂ thinks that she₂[★] will inherit a fortune then₁[★].

The moral I would like to draw is that quasi-indicators should be characterized along the lines of logophoric pronouns. As such, they are better characterized as pronouns obeying constraints which must be stated in terms of discourse considerations. As we shall now see, the main notions involved in characterizing these kinds of anaphora are the related ones of *point of view*, *perspective* and *empathy*. To begin with it is worth quoting Castañeda:

In the sequel we shall be concerned almost exclusively with third-person statements that ascribe self-knowledge to others, like

- (3) The Editor of *Soul* knows that he (himself) is a millionaire, and
 (4) The Editor of *Soul* knows that Mary knows that her niece knows that he (himself) is a millionaire.

In these cases the attribution of self-knowledge is made by means of the third-person pronoun 'he (himself)' to be abbreviated 'he[★]', which has here the following characteristics:

²² Example (18a) comes from Jackendoff (1971); quoted in Pollard & Sag (1992), while examples (18b–c) come from Pollard & Sag (1992). Since in (18c) we have a case of intersentential anaphora it cannot be a case of anaphora in the sense of Principle A.

- (i) it does not express an indexical reference made by the speaker;
- (ii) it appears in *oratio obliqua*;
- (iii) it has an antecedent, namely ‘the Editor of *Soul*’, to which it refers back;
- (iv) its antecedent is outside the *oratio obliqua* containing ‘he★’;
- (v) ‘he★’ is used to attribute, so to speak, implicit indexical reference to the Editor of *Soul*; that is, if the Editor were to assert what, according to (3) and (4), he knows, he would use the indicator ‘I’ where we, uttering (3) and (4), have used ‘he★’: he would assert, respectively,
 - (3a) I am a millionaire, and
 - (4a) Mary knows that her niece knows that I am a millionaire. Castañeda (1968: 440–1).²³

Castañeda’s characterization of quasi-indicators mirrors Clements’ characterization of logophoric pronouns:

Logophoric pronouns can be characterized cross-linguistically in the following way:

- (i) logophoric pronouns are restricted to *reportive contexts* transmitting the words or thought of an individual or individuals other than the speaker or narrator;
- (ii) the antecedent does not occur in the same reportive context as the logophoric pronoun;
- (iii) the antecedent designates the individual or individuals whose words or thoughts are transmitted in the reportive context in which the logophoric pronoun occurs. Clements (1975: 171–172)

Logophoric pronouns are thus intrinsically linked to attitude ascriptions.²⁴ As such, the logophoricity phenomenon is intrinsically linked to the notion of perspective, i.e. the perspective of a protagonist of a sentence and/or discourse (see Huang 2000: 172). In the cases I am interested in, the relevant perspective is the egocentric perspective of the subject of the attitude whose thought is being reported.

²³ For a similar and more specific characterization see Castañeda (1967, reprinted in Castañeda 1989: 218 ff).

²⁴ ‘[L]ogophoric pronouns are a type of indirect-discourse pronoun . . . logophoric pronouns have a natural place in the typology of indirect discourse’ (Culy 1997: 851).

The main features worth stressing concerning quasi-indicators and logophoric pronouns linked to referring NP can be summarized as follows:²⁵

Quasi-indicators and logophoric pronouns

- (i) appear in *oratio obliqua*,
- (ii) are semantically dependent and as such cannot be used deictically—they are intrinsically syncategorematic terms,
- (iii) their reference (or semantic value) depends on the noun phrase they are linked to (coindexed with) and,
- (iv) they attribute an indexical reference/thought to the referent of the antecedent that they are coindexed with.

As I have already mentioned, some West African languages have logophoric pronouns that are morphologically marked and thus distinct from other pronouns. In Ewe, for instance, the pronoun ‘yé’ is used exclusively as a logophoric pronoun and appears exclusively in attitude reports:²⁶

- (20) a. Kofi be yé-dzo.
[Kofi say LOG-leave]
(Kofi said that he (himself) left)
- b. Kofi be me-dzo.
[Kofi say I-leave]
(Kofi said that I leave)
- c. Kofi be e-dzo.
[Kofi say s/he-leave]
(Kofi₁ said that she/he₂ leave)

Furthermore, in Ewe the logophoric pronoun ‘yé’ is also morphologically distinct from the reflexive pronoun ‘dokui’:

- (20) d. Kofi lõ e dokui.
[Kofi self-love]
(Kofi loves himself)

²⁵ For the simplicity of the argument, I concentrate on quasi-indicators that are linked to singular terms. As we saw, when a pronoun (and thus a quasi-indicator) is coindexed with a quantified expression, it works like a bound variable and, as such, it is not a referential term; it does not contribute the referent into the proposition expressed. In, for instance, ‘Every woman will tell a man that *she*₁★ loves him’, the quasi-indicator ‘she★’ is bound by the quantifier ‘every woman’ and does not contribute a specific individual into the proposition expressed.

²⁶ ‘yé’ is used exclusively in indirect discourse (and other types of reportive contexts), while it is replaced, in direct discourse, by the appropriate first person singular form’ (Clements 1975: 152).

- e. Kofi be yé-lõ yé dokui.
 [Kofi say LOG-self LOG love]
 (Kofi₁ said that he₁ loves himself)

One of the main questions, if not the main question, we must now consider concerns how we assign the content necessary for their referential interpretation, i.e. on how they are linked to the noun phrase with which they are coindexed. As we saw when discussing cases of intrasentential anaphora—e.g. ‘then★’ in (19b)—quasi-indicators may not obey Principle A, yet they are anaphoric insofar as their value depends on the noun phrase to which they are linked and co-indexed. Furthermore, it has been claimed (see Culy 1997: 851–852) that personal logophoric pronouns, unlike many personal pronouns, cannot be used without a discourse antecedent. Like quasi-indicators, they are syncategorematic terms. Without entering into the details, we can say that when evaluating a sentence containing a quasi-indicator *or* logophoric pronouns, the whole discourse must be taken into consideration, for the anaphoricity of a logophoric pronoun and a quasi-indicator may transcend the boundaries of the sentence in which it appears. This mirrors the behaviour of exempt picture noun reflexives (see Pollard & Sag 1992: 274). It is often the case that exempt picture noun reflexives inherit their value from an individual whose view point or perspective is reported. Pollard & Sag (1992) invite us to consider the following discourse:

- (21) John₁ was going to get even with Mary. That picture of himself₁ in the paper would really annoy her, as would the other stunts he had planned.

where the picture noun phrase is naturally interpreted as coreferential with ‘John’ insofar as the narrator has taken on John’s viewpoint. If we compare this discourse with the following, where the narrator takes on Mary’s viewpoint, and where the picture name reflexive is coindexed with ‘John’, we generate ungrammaticality:

- (22) * Mary was quite taken aback by the publicity John₁ was receiving. That picture of himself₁ in the paper had really annoyed her, and there was not much she could do about it

Pollard & Sag’s moral is that, when a reflexive is exempt from Principle A, discourse considerations enter the picture: the reflexive must take a NP selecting the agent whose viewpoint is presented in the text as its antecedent. Pollard & Sag (1992: 277–8) also note that psychological

verbs such as ‘bother’ make evident how the notion of viewpoint can be crucial in determining the antecedent of an anaphora. In the case of ‘bother’, for instance, it is natural to assume that the agent whose viewpoint is being reflected is the direct object of the verb. Thus, the contrast between sentences such as:

- (23) a. The picture of himself₁ in *Newsweek* bothered John₁
 b. * The picture of himself₁ in *Newsweek* bothered John₁’s father

make clear that the ungrammaticality of (23b) is explained by the fact that the viewpoint represented is that of John’s father, rather than John’s. This phenomenon is further highlighted if we consider (23c–d) which, though structurally equivalent to the ungrammatical (23b), are grammatical insofar as they reflect John’s viewpoint:

- (23) c. The picture of himself₁ in *Newsweek* dominated John₁’s thoughts
 d. The picture of himself₁ in *Newsweek* made John₁’s day

Similar considerations apply to quasi-indicators and logophoric pronouns. The choice of a logophoric pronoun over an ordinary pronoun rests on considerations pertaining to discourse conditions. People dealing with logophoricity often appeal to notions such as point of view. Reinhart & Reuland (1991: 316–7), for instance, assume that a given utterance is associated with a *centre* consisting of the (i) speaker and the hearer, (ii) the time of the utterance and (iii) the location of the utterance. Pronouns used deictically will operate on the centre to fix the reference. Logophoricity is explained as a relation between expressions and centres.²⁷ The centre need not be actual in a report; it is likely to be the centre of the attributee. This is particularly evident in the attribution of indexical thoughts to other people. A logophoric pronoun, like a quasi-indicator, depends on a *logocentric trigger*. The latter is the antecedent of the logophoric pronoun/quasi-indicator. Usually the logophoric trigger is a NP, which is the *subject* of the utterance denoting the attributee.²⁸ Besides, logophoricity is not a phenomenon confined to a single sentence. It can extend across a whole discourse in which the protagonist’s egocentric perspective

²⁷ ‘[L]ogophoricity is a relation between expressions and centers (whether actual, or reported). As such it is not strictly a sentence-level phenomenon . . . a center-oriented use of third person anaphora does not require an antecedent in the sentence. As with first person anaphors they can find their referent in some center or assumed in previous context’ (Reinhart & Reuland 1991: 316–317).

²⁸ ‘First, logocentric triggers are generally constrained to be a core-argument of the logocentric predicate of the matrix clause. Secondly, they are typically subjects. In other words, a logophoric pronoun is canonically subject-oriented. Contrariwise, a regular pronoun is not’ (Huang 2000: 181).

is discussed and reported. We can distinguish, though, between the *sentential logophoric domain* (this is typically constituted by a report of the form ‘NN believes that she[★] is F’) and the *discourse logophoric domain*. Actually, it is not unusual to find languages (Ewe, Fon, Bwamu, . . .) in which logophoric domains also operate across sentences. This is also the case in Donno S₂ where a logophoric pronoun can occur anywhere in a stretch of indirect discourse. It can also appear embedded within another discourse. In that case the logophoric pronoun may refer to the person whose words, thoughts, etc. are being reported by someone in the higher indirect discourse or to the person doing the reporting (see Culy 1994: 117). This feature parallels the discussion of multiple embedded reports containing quasi-indicators. We saw that a quasi-indicator can appear within a multiple embedded attribution, like ‘she[★]’ in ‘Jane told Igor that Julie believes that she[★] is a spy’ or ‘he[★]’ in ‘Tim said that Julie thinks that Mary believes that he[★] is an intelligent man’. This feature, if I am right, also parallels Castañeda’s claim that the personal pronoun ‘I’ can also work as a quasi-indicator:

To complicate things further there is also the dependent quasi-indexical use of the first-person pronoun. Consider:

(6) I believe that I am heading for trouble

On *one* interpretation, (6) is simply the first-person instance or filler of the quasi-indexical schema:

(7) X believes that he himself is heading for trouble

Clearly, the variable ‘X’ is instantiated into ‘I’ and this, by the agreement of grammatical person . . . mandates that the quasi-indicator ‘he himself’ be replaced with ‘I’. Thus, the second, the quasi-indexical ‘I’ in (6) has a meaning that includes the general meaning of ‘he himself’. The role of the quasi-indicator ‘he himself’ is to depict first-person reference by the speaker. It is, therefore, not entirely vicarious as is the first-person pronoun in (3)[Satan believes of me that I am grouchy]. Yet it is an important difference. The quasi-indicator is a mechanism for the attribution, by depiction, of indexical reference, *not* for making it. Thus, the quasi-indicator ‘I’ in (6) represents a self-*attribution* of the making of first-person reference. Castañeda (1983: 322)

The main idea here can be summarized as follows. In a logophoric domain (whether a sentence or discourse), a logophoric pronoun or a

quasi-indicator needs to have an antecedent from which it inherits its semantic value. The logophoric pronoun/quasi-indicator's peculiarity is that it attributes (it *depicts*, as Castañeda says) an indexical reference to the referent of the antecedent. This idea can also be captured using Kuno & Kaburaki's (1977) notion of *empathy*. Empathy corresponds to the speaker's identification (in varying degrees) with the person participating in the event described. Following this suggestion, a quasi-indicator is likely to be used when the reporter is empathizing with the attributee. The fact that one cannot empathize with someone more than one empathizes with oneself explains the difference between reports like:

- (24) a. Jane hopes to win the tournament.
 [Jane hopes PRO* to win the tournament]
 b. I expect Jane to win the tournament.
 [I expect Jane PRO to win the tournament]
 c. (?) No one but herself, Jane expects to win the tournament.
 [No one but herself, Jane expects PRO* to win the tournament]
 d. * Talking of Jane, I expect herself to win the tournament.

The fact that (24a) receives a *de se* interpretation is explained by the fact that the reporter empathizes with the attributee, Jane. The fact that (24b) forces the *de re* reading is explained by the fact that the reporter does not (and cannot) empathize with Jane; the speaker cannot empathize with someone more than she empathizes with herself and this is pointed out by the presence of 'I'. This peculiarity should also explain the ungrammaticality of (24d): the reflexive 'herself' suggests that the speaker empathizes with Jane while the first-person pronoun underlines the speaker's empathy with herself. This generates a conflict of empathy focus and, thus, ungrammaticality. As I understand it, the notion of empathy helps to explain how one can represent someone else's perspective. There is a kind of perspective switch when one uses a quasi-indicator to report someone else's thoughts. The reporter takes, so to speak, the attributee's perspective. The ungrammaticality of (24d) can thus be explained by the fact that the reporter uses 'I' and, because of this very fact, the reporter cannot take Jane's perspective. On the other hand, the grammaticality of (24a–c) is explained by the fact that the attributer takes Jane's perspective.

A similar explanation can be proposed for Amharic, a language in which the first person pronoun can work either deictically or as a logophoric pronoun when embedded in an attitude ascription (see Schlenker 2003):

- (25) a. John Jägna näNN yt-lall
 [John₁ hero I₁ am says]
 (John₁ said that he₁ is a hero)
- b. w ndlme y mmiw dstIn llJ ag NN
 [my brother whom he likes girl found]
 (My brother₁ found a girl he₁ likes)
- c. w ndlme y mmIw dstIn llJ ag NN
 [my brother whom I like girl found]
 (My brother found a girl I like)

It seems that the first person pronoun in Amharic can behave as a quasi-indicator. This seems to present an instantiation of Castañeda's prediction. In other words, the Amharic 'I' furnishes empirical evidence in favor of the thesis that, at the deep level, or level of logical form, 'I' functions as a quasi-indicator when embedded in a self-ascription such as:

- (26) a. I think that I am in danger.

and hence it must be understood along the lines of:

- (26) b. Jane thinks that she[★] is in danger.

The correct representation of (26a) should thus be:

- (26) c. I₁ think that I₁^d★ am in danger.

which mirrors the representation of (26b):

- (26) d. Jane₁ thinks that she₁^d★ is danger.

This peculiarity can easily be explained in terms of point of view or empathy. In a self-report like (26a), the quasi-indexicality of the embedded 'I' depends on the fact that it appears in an attitude ascription and that it reflects the viewpoint of the attributee (which happens to be the same as the attributer). In terms of empathy, this amounts to saying that the attributer empathizes with the attributee. Since the attributer and the attributee are the same, the reporter empathizes with herself and, thus, self-ascribes an 'I'-though. The same pattern applies to multiple embedded self-ascriptions; thus, (27a) and (27b) should be treated on a par as well:

- (27) a. I think that Igor believes that I am in danger.
 b. Jane thinks that Igor believes that she[★] is in danger.

could be represented, respectively, as:

- (27) c. I₁ think that Igor believes that I₁^d★ am in danger.
d. Jane₁ thinks that Igor believes that she₁^d★ is danger

Once again, the quasi-indexicality of the embedded ‘I’ is explained by the fact that it reflects the point of view of the attributee, i.e. the subject of the ‘that’-clause ‘that I am in danger’. As a further example of a situation in which ‘I’ should be understood as a quasi-indicator, we can present the following situation.

- (28) Jane to Ivan: ‘You are in danger’.

In reporting what Jane said, Ivan would probably say:

- (28) a. Jane told me that I am in danger.

while Jane would say:

- (28) b. I told Ivan that he himself is in danger.

while a third party would report:

- (28) c. Jane told Ivan that he himself is in danger.

All these reports present the same underlying structure:

- (28) d. X told Y₁ that s/he₁^d★ is in danger.

This should highlight the parallel between the occurrence of ‘I’ in (28a) and the quasi indicator ‘he himself’ in (28b) and (28c), i.e. it suggests that the second occurrence of ‘I’ in (28b) is best understood as a quasi-indicator. If ‘I’ were not understood as a quasi-indicator, (28a) would be an instance of the schema:

- (28) e. X told Y that Y is in danger.

But a report like

- (28) f. Jane told Igor that Igor is in danger.

is an instantiation of this schema and yet (28f) does not represent an accurate report. Neither Jane nor Jon or a third party would report (28) in uttering (28f).

To summarize, we can say that quasi-indicators and logophoric pronouns are *oratio obliqua* pronouns which represent the attributee’s

point of view. As such, they attribute a given perspective to the attributee. Quasi-indicators are the *oratio obliqua* mechanism enabling a reporter to capture the attributee's egocentric setting, i.e. the perspective (agent, time, location) of the latter. As an example we can quote the following exchange between A in San Francisco and B in LA:

- A: Will you be *here* tomorrow?
 B: If it is raining I won't be *there*★.

where 'here' picks out the place of A's utterance which is, to borrow Reinhart & Reuland's terminology, the centre of A's utterance. 'There' is coreferential and it inherits its reference from 'here'. With the quasi-indicator 's/he★' we have a similar phenomenon:

- A to C: (1) I₁ⁱ won the lottery.
 B to C: (2) What did she₁^d say?
 C to B: (3) She₁^d said that she₁^d★ won the lottery.
 C to D: (4) A₁ⁱ told B₂ that she₁^d★ won the lottery. She₁^d is now rich.

The centre enabling us to fix the reference of 'I' is furnished by A's utterance; the referent is the agent of (1). The very same centre, thanks to the anaphoric chain, also allows us to fix the reference of the anaphor 'she' and the quasi-indicator 'she★'. Their reference is inherited from 'I' in (1). The quasi-indicator 'she★' in (3) and (4) also attributes to the utterer of (1) a use of the first-person pronoun and thus an 'I'-thought. To be precise, the quasi-indicator 'she★' in (3) inherits its reference from the anaphoric pronoun 'she' whose initiator is 'I' in (1). The same goes for the quasi-indicator 'she★' in (4); it inherits its semantic value from 'A'. As a general rule governing the third person quasi-indicator 's/he★', we can thus propose the following:

The quasi-indicator's antecedent

The antecedent of a third person quasi-indicator must be a NP referring to, or ranging over, the *agent(s)* whose attitude is/are reported. When a quasi-indicator is linked to a referring NP, the latter need not be the immediate antecedent and can occur in distant clauses.

In the case of multiple-embedded ascriptions, a quasi-indicator may not appear in the immediate subjacent clause. In

- (29) Jane₁ told Igor that Jon believes that she₁★ won the lottery.

for instance, the quasi-indicator ‘she★’ is coreferential with ‘Jane’ and, therefore, it does not appear in the immediate subjacent that-clause. We have cross-linguistic evidence in favor of this fact as well, for the logophoric pronoun of Ewe is not restricted to the immediate subjacent clause but can appear in clauses at *any* depth of embedding (see Clements 1975: 154).

5 QUASI-INDICATORS AND ATTITUDE ASCRIPTIONS

It has been argued that quasi-indicators can be explained away as a mere pragmatic phenomenon. I characterize this position as *the pragmatic explanation*. As such they do not contribute to the semantics of attitude ascriptions. Attitude ascriptions like (30a) and (30b) could not differ in truth-value:²⁹

- (30) a. Privatus believes that he himself (he★) is a millionaire.
 b. Privatus believes that Privatus is a millionaire.

The information that an attribution like (30a) attributes to Privatus an ‘I’-thought is, at best, pragmatically imparted. It is not semantically encoded. Böer & Lycan (1980), for instance, go as far as dismissing the Irreducibility Thesis in all its manifestations:

[c]ontra Castañeda, Perry, Lewis, and the rest, we need not admit that the content of an attitude *de se* is inexpressible by any nonperspectival, third-person sentence. The content of John’s belief in (1a) [John believes that he himself is in danger] is the proposition that John is in danger (we might think of this proposition, *à la* Russell as being a pair consisting of John himself and the property of being in danger) . . . Thus if one holds that the objects of propositional attitudes are propositions in the traditional sense of that term or something like it, one can hold that the objects of attitudes *de se* are ordinary propositions in just the same sense. . . . there is nothing special about the semantic content of the proposition expressed; all that is distinctive are the pragmatic rules that compute the indexical terms’ denotata. Böer & Lycan (1980: 433)

²⁹ The idea that sentences like these do not differ in truth-value and that Frege-inspired puzzles must be explained away using the Gricean apparatus of pragmatic implicature has been more recently championed, among others, by Salmon (1986).

Furthermore:

Of course ‘he himself’ refers, not just referentially, but in a further special way. Our claim is that it refers in a *pragmatically* special way. There is a pragmatic constraint on the use of ‘he himself’ to the effect that an occurrence of ‘he himself’ inside the scope of a verb of propositional attitudes denotes the subject of that verb; there may be further pragmatic constraints on the use of indexical pronouns that will explain why (1a) [John believes that he himself is in danger] implies or suggests that John is willing to assert ‘I am in danger.’ Böer & Lycan (1980: 441)

Böer and Lycan’s objection rests on the plausible thesis that a singular term, whether appearing in an *oratio recta* or *oratio obliqua* construction, is used by the speaker and/or writer.³⁰ To be precise we should say that it is used by the agent of the utterance, insofar as one can make utterance using tokens produced by someone else (e.g. post-it notes and answering machines). One need not reject the thesis that a singular term, whether embedded in an *oratio obliqua* construction or an *oratio recta* one, is used by the agent of the utterance to single out a give object. One need not give up, *pace* Frege, semantic innocence. In particular, one need not embrace the thesis that embedded terms do not refer to their customary referents. From this, though, it does not follow that *de se* ascriptions are not semantically relevant and thus that quasi-indicators are pragmatic in nature. The reference of a quasi-indicator is fixed in the very same way as the reference of an anaphoric pronoun. An anaphor is used by the agent of the utterance and, if it is linked to a singular term, both terms co-refers with the term it is coindexed with. Quasi-indicators, like logophoric pronouns, refer in a dependent way when linked to singular terms and are also used by the agent of the utterance.

Besides, the pragmatic explanation falls short of explaining the case when the *de se* interpretation is forced by grammar, as it is the case with silent subjects in infinitival clauses. As we saw, this subject, PRO*, must be understood along the lines of a quasi-indicator. PRO* contributes to the semantics of attitude ascriptions. A position which rejects the semantic relevance of *de se* attitudes and, therefore, does not allow us

³⁰ ‘When a purely referential designator occurs transparently, even within the scope of an operator that is capable of creating opacity, the designator is in the mouth of the utterer of the whole sentence, and *in no way* in the mouth of any subject to whom the utterer may be ascribing a propositional attitude’ (Böer & Lycan 1980: 438).

to capture the semantic nature of PRO* should be rejected. To the best of my knowledge, friends of the pragmatic explanation can claim that *de se* attributions, whether or not they involve PRO*, should be explained away in pragmatic terms. Thus one is not constrained to deny the existence of *de se* attributions; all the friend of the pragmatic explanation denies is the semantic relevance of them. If I am right in arguing that the silent subject of an infinitival clause must be understood along the lines of a quasi-indicator and that such understanding is forced by the grammar, i.e. it is syntactically driven, then I am also right in claiming that *de se* attributions of this kind *are* semantically relevant. A given interpretation cannot be syntactically forced and play no semantic role. It would be like claiming that the utterance of a sentence like ‘It is snowing’ does not pick out a location because no morpheme in it stands for a location and, therefore, that the relevant location is at best pragmatically imparted. If, as I believe, an utterance like ‘It is snowing’ tacitly refers to a given location *because* ‘to snow’ is a two-place relation taking times and locations as arguments, then the place where it is snowing is semantically encoded. In other words, if one accepts that there is an implicit argument for a location at work and that this argument is a syntactic requirement, then the location where it is snowing is semantically relevant and affects the truth value of the utterance.³¹ A similar story can be told about PRO*. If PRO* is syntactically required (and I have argued that it is), then it is semantically relevant.

Against the pragmatic explanation we can further quote cases *in English* where a pronoun cannot be replaced by a co-referential NP. Consider:

- (31) a. That Ali₁ was the best boxer in the world was claimed by him₁ repeatedly.
 b. * That he₁ was the best boxer in the world was claimed by Ali₁ repeatedly.

In (31a), the subordinate clause ‘is the direct discourse representation of what Ali said’ (Kuno 1987: 106). Kuno hypothesizes that the derivation of (31a) starts with the following underlying structure:

³¹ Some people (e.g. Recanati 2002) contest the fact that a sentence like ‘It is snowing’ contains an argument place for a location and argue that this sentence would be true iff it is snowing anywhere/somewhere. However, I do not believe that this captures our intuition. Besides, it does not seem to capture the fact that a meteorological verb like ‘snowing’ θ -marks the subject. The latter can only take locations as values, i.e. its thematic role must be a location. No doubts more should be said about this issue. For a recent discussion of this phenomenon and a defense of the thesis that meteorological verbs are two place relations taking as arguments times and locations, see Corazza (2004b).

(31) c. [Ali claimed [‘I am the best boxer in the world’]]

With the rule of indirect discourse formation (tense and person agreement), we then have:

(31) d. Ali claimed that he was the best boxer in the world

where the first person pronoun changes to ‘he’, in agreement with ‘Ali’. Kuno claims that there are no transformations that would change ‘I’ to ‘Ali’ and, therefore, that it is not possible to use ‘Ali’ in this position. This explains why (31a) is grammatical while (31b) is not. This seems to bring in further evidence in favour of understanding the pronoun ‘he/him’ in (31d) and (31a) to be a quasi-indicator that cannot be replaced by its antecedent, ‘Ali’.

Moreover, if we follow Böer & Lycan’s proposal and claim that the *de se* interpretation of an infinitive clause is nothing but a case of the *de re* interpretation, then why does a (*de re*) ascription like ‘Privatus believes that Privatus is rich’ lack, i.e. linguistically prevent, the *de se* interpretation? The moral seems to be that the pragmatic explanation does not fit the linguistic facts. As a further example (from Reinhart quoted in Chierchia (1989: 23), we can also mention:

- (32) a. Jon wants to become a doctor but his mother does not want to.
 b. Jon wants to become a doctor but his mother does not want that.

While (32a) has only the sloppy reading meaning, ‘his mother does not want to become a doctor’, (32b) allows the strict reading, ‘his mother does not want Jon to become a doctor’ as well. If I am right in believing that the sloppy (*de se*) reading in an attribution like (32a), unlike an attribution like (32b), is forced by grammar, then I am also right in claiming that the pragmatic explanation falls short of giving us an account of this phenomenon. If so, we cannot explain away *de se* ascriptions as merely a subclass of *de re* ascriptions, which can be accounted for pragmatically.

Some (e.g. Chierchia) could argue that in order to capture the perspectival nature of indexical thoughts, we should give up the idea that *de se* ascriptions relate agents with propositions.³² *De se* attributions

³² The idea that indexical thoughts are intrinsically perspectival rests on the Irreducibility Thesis I discussed in section 1, i.e. on the fact that indexicals are essential and irreducible to other mechanisms of reference. It goes without saying, though, that if one rejects this thesis one is likely to reject the idea that thoughts expressed using indexicals are perspectival.

relate agents and properties and *de se* attributions are self-ascriptions of properties. I characterize this position *the property attribution explanation*. It is worth noticing that Lewis and Chisholm claim that they can handle *de se* attributions—and thus explain away quasi-indicators as a mere pragmatic phenomena—within their general account of attitude ascriptions, for the latter is property based. In short, an attitude ascription does not relate an agent and a proposition but it relates an agent with a property. That is to say, believing must be understood as a relation holding between a believer and a property which the believer is said to attribute to herself (see Chisholm 1981: 27). Hence, an attribution involving quasi-indicators is such that it attributes to the attributee the self-ascription of a given property.³³ A report like (30a) attributes to Privatus the self-ascription of the property of being a millionaire. Following Chisholm's proposal, (30a) could be analysed as:

- (32) c. The property of being a millionaire is such that Privatus directly attributes it to Privatus.

This proposal, though, is not fine grained enough to capture some *de se* attitudes. If, for instance, Privatus wrongly believes that vixens are wild dogs, then, after a night of chasing the animal that killed his rabbits, he may say:

- (33) a. I believe that I shot a female fox.
b. I do not believe that I shot a vixen.

From the third-person perspective these self-ascription would be rendered as:

- (34) a. Privatus believes that he himself (he★) shot a female fox.
b. Privatus does not believe that he himself (he★) shot a vixen.

Following Chisholm's proposal (34a) is analysed as:

- (34) c. The property of shooting a female fox is such that Privatus directly attributes it to Privatus.

Given that the property of shooting a female fox is identical with the property of shooting a vixen, (34c) is equivalent with (34d):

³³ 'x believes that he himself is $F = Df$. The property of being F is such that x directly attributes it to x ' (Chisholm 1981: 28). Chierchia, unlike Lewis and Chisholm, maintains that only *de se* attributions must be treated as self-ascriptions of properties and that *de re* ascriptions relate the attributee with a proposition. Chierchia argues that we must introduce the self-ascription of properties story in order to capture the nature of *de se* attributions. This story (unlike Chisholm's, for instance) is not independently motivated.

(34) d. The property of shooting a vixen is such that Privatus directly attributes it to Privatus.

(34d), though, represents the ascription:

(34) e. Privatus believes that he himself (he[★]) shot a vixen.

But (34e) contradicts (34b). The moral seems to be that quasi-indicators cannot be explained away. They are irreducible. The property attribution explanation is thus unsatisfactory.³⁴

I now turn to discuss another position, *the hidden indexical explanation*.³⁵ This position is the one championed by Crimmins & Perry (1989). Following this theory, an attitude ascription relates the attributee to both the proposition expressed by the that-clause and something else. It is the latter which is supposed to capture the mental state of the attributee, i.e. to capture the way the proposition is entertained. The third relatum is a compound cognitive particular. Roughly, this is a token mental state made up by notions (cognitive particulars of individuals) and ideas (cognitive particulars of properties). The ideas and notions under which the attributee grasps the proposition expressed by the that-clause are contextually furnished. They are, to use Crimmins & Perry's terminology, *unarticulated constituents* of the report. It is the context that forces them into the report, but they are not triggered by an indexical present either at the surface or deep level of the report. Nothing in the grammar or logical form of the report stands for the notions and ideas the report tacitly refers to. To put it into a nutshell, a report relates an agent to a proposition and a thought. The latter is a token composed of notions and ideas, but nothing in the report or in the report's logical form refers to the thought.³⁶

If I am right in claiming that the unpronounced subject of infinitival clause must be understood along the lines of a quasi-indicator, then we do have evidence that the *de se* nature of a report is forced into the latter by grammar and, therefore, that quasi-indicators cannot be

³⁴ As we saw, Chierchia's views PRO as a property-abstractor and argues that the logical form (LF) of 'The cat wants to eat the cheese' is 'The cat₁ wants [PRO₁ to eat the cheese]'. But as I just stressed this representation does not cut finely enough to capture the nature of *de se* ascriptions. Thus the regimentation I proposed, i.e. 'The cat₁ wants [PRO₁[★] to eat the cheese]', differs and cannot be reduced to Chierchia's one. In particular quasi-indicators cannot be analysed using a property-abstractor.

³⁵ The terms 'hidden indexical' comes from Schiffer (1992).

³⁶ '[T]here is nothing mysterious here, and there is no reason to postulate two different pronouns "he". What happens in these cases is simply that the agent is claimed to have a belief about herself *via her self-notion*. The puzzle about indexical belief reports really amounts to just that' Crimmins (1992: 165).

explained away as unarticulated constituents of the report. Castañeda was thus in the right in postulating the existence of different uses of the third-person pronoun when it appears in an *oratio obliqua* construal. I also proposed cross-linguistic evidence in favour of quasi-indicators. Hence, if we recognize that quasi-indicators (like logophoric pronouns) exist in natural language, we may not be so suspicious in recognizing their existence in English.

6 CONCLUSION

Having proved that quasi-indicators do exist in natural language, the best way to accommodate them into a theory of attitude ascriptions is to treat them along the lines of logophoric pronouns. As such they enable the reporter to attribute an indexical perspective to the attributee(s). Hence, quasi-indicators cannot be explained either as a merely pragmatic phenomenon or as unarticulated constituents. Quasi-indicators force their way into the semantics of attitude ascriptions. As such, they are what help us to depict other people's *de se* attitudes. For these reasons, quasi-indicators and essential indexicals are just like two sides of the same coin. In short, if one commits oneself to the Irreducibility Thesis one must endorse both its *oratio recta* and *oratio obliqua* manifestations.

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