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Consequences of the Pragmatics of '*De Se*'[1]

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1   Introduction

'De se' attitudes (beliefs and other similar attitudes about the (possibly un-named) thinking subject) constitute a very interesting, intriguing and hot philosophical and linguistic topic. Since Perry's seminal article, it has been clear that the 'de se' mode of presentation of the reference, like other modes of presentation in general, has profound consequences on action. A universal truism about 'de se' modes of presentation is that they are irreducibly indexical. Despite the appeal of this topic to philosophers, a number of linguists have been attracted by its aura of mystery and have tried to discipline its ineffability under a set of linguistic concepts (mainly drawn from the theory of anaphora or from logophoricity), trying to systematize the behavior of 'de se' under logical inference. The slide from philosophical to linguistic treatments is certainly laudable, as the systematicity of a linguistic treatment that disciplines the behavior of 'de se' from the point of view of logical inference is certainly welcome. In this paper, my fundamental claim is that the most successful linguistic treatment, which I take to be that of Higginbotham (2003), needs supplementation by specific inclusion of the 'I' (or EGO) mode of presentation at the level of (interpreted) logical form. The main reasons for this are given in my paper in Capone (2010), follow-

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ing Feit (personal communication) and in Feit (this volume) as supplement-
ed by considerations of parsimony and other inferential behaviors. In this
paper, I want to open up again this discussion and examine the bifurcation
between a strand of research (Castañeda 1966) which tries to eliminate the
view that 'he*' can be reduced to the first-person pronominal and another
strand that favors the identification of the essential indexical with 'I' or an-
yway properties of the first-person pronominal (Perry 1979). I will also find
it useful to let the discussion interact with considerations by Jaszczolt (this
volume), which seem to lead away from Perry's considerations.

The views by David Lewis (1979) on 'de se' are not discussed in the
following section Suffice it to say that for Lewis a 'de se' ascription could
be expressed as a self-attribution of a property. In the main body of this pa-
per, I only take up this view to discuss Higginbotham's influential and in-
teresting objections to it.

The structure of my paper is the following:

a. A resume of the classical papers on 'de se', including recent papers by
    Higginbotham (2003) and Recanati (2009).
b. A discussion of the recent pragmatics literature on 'de se' attitudes
    (linguistics);
c. A discussion of pragmatic intrusion in connection with the first-person
    pronoun;
d. A discussion of the logical connection between the first-personal di-
    mension, the internal dimension and immunity to error through misi-
    dentification. Is immunity to error through misidentification dependent
    on the intrusion of the EGO concept in a 'de se' construction? What
    kind of relationship is there between immunity to error through misi-
    dentification and the internal dimension of 'de se'?
e. Pragmatics and the internal dimension (whether partial or full);
f. Immunity to error through misidentification: semantic (Higginbotham
    2003) or pragmatic (Recanati 2009)? Or how to diffuse the dichotomy.
    (Modularity and pragmatic intrusion).

PART I

2 'De Se' in Philosophy

In this section I shall present what I take to be the most influential theories
on 'de se'. Higginbotham's view is philosophical/linguistic, but I have de-
cided to include it in this philosophical section because it is the only one
that has the merit of unifying the first-personal character of 'de se', with
phenomena such as the internal dimension of PRO and immunity to error
through misidentification. I will mainly use the perspective outlined in

Higginbotham (2003), because it is linguistically explicit, in making recourse to anaphoric concepts and to concepts taken from Fillmore's theory, and I will supplement it with considerations by Perry (the idea that the essential indexical needs to make use of the concept 'I' at some level of (pragmatic) interpretation). After articulating this section in a relatively neutral way, I shall discuss the dichotomy in the views of Castañeda and Perry, opting for Perry's views, and I will make connections between Higginbotham's view of immunity to error through misidentification and Recanati's novel treatment, which is, if I understand it well, pragmatically biased.

2.1 Castañeda

In his seminal paper, Castañeda (1966) discusses uses of the pronominal 'he' in attributions of self-knowledge – hence his use of the term 'S-uses of he*'. Self-knowledge attributions normally have the following linguistic structure:

(1) John knows he* is happy.

Castañeda claims that 'he' is an essential indexical in that it cannot be replaced a) by a pronominal which refers to some x; b) by a description used to refer to x; c) by a Proper Name used to refer to x; d) by a deictic; e) by the pronominal 'I'.

The claim by Castañeda is valid for verbs of psychological attribution, in addition to being applicable to verbs such as 'say', 'assert', 'deny' (assertive or quasi assertive verbs; this class of verbs is not discussed in depth by anyone; but my impression is that the link between these verbs and verbs of genuine propositional attitude is only a derivative one).

What should be emphasized is the claim that we cannot replace 'he*' in (1) with e.g. a definite description or with a demonstrative pronoun (the extension of the reasoning to genuine pronominals and Proper Names is straightforward).

Suppose we consider (2):

(2) The editor of Soul believes he* is a millionaire.

In case we know that X is the just appointed editor of Soul but x does not yet know that, we may report (2) but not (3)

(3) The editor of Soul believes that the editor of Soul is a millionaire.

The reason for this is that x does not recognize himself through the mode of presentation 'the editor of Soul'.

Analogously, we should not be inclined to use (4) with a deictic use of 'he' to express (2):

(4) The editor of Soul believes he is a millionaire.

The editor of Soul may look at himself in a mirror, without recognizing himself and would assent to 'He is a millionaire' without having the disposition to assent to 'I am a millionaire'.

The second part of the paper is devoted to the discussion of the deictic 'I' in connection with the claim that there is a close relationship between 'de se' attributions and attributions using 'I'.

Given that Castañeda denies that the essential indexical can be expressed through 'I', it is not clear what the aim of the second part of the paper is. My speculation is that, despite the alleged falsity of Carl Ginet's claim that 'de se' is reducible to 'I', somehow Castandeda thinks it is plausible that someone else will try to establish the connection between the essential indexical and 'I'.

Despite the complexity of the second part of the paper, we can single out some essential discussions. Castañeda claims that 'I' has **ontological** priority as well as epistemic priority. The ontological priority is based on the consideration that a correct use of 'I' cannot fail to refer to the object it purports to refer. This property is not shared by definite descriptions.

Epistemic priority consists in the consideration that a person cannot remember facts about himself, without using in his memory the word 'I'. Castañeda, however, claims that the word 'I' only has partial epistemic priority. In fact, when people distinct from the person who would use 'I' to refer to herself have to remember some facts, they have to make use of 'he' or 'he*' as in 'John knows that he* was happy'. The fact that definite descriptions, proper names, pronominals have to be eliminated to remember self-knowledge is counterbalanced by the fact that these descriptions are not eliminable when the same facts are reported from the outside.

The last, possibly decisive point Castañeda wants to establish is that he* is ineliminable, while 'I' can be eliminated. Consider what happens in (5)

(5) I believe that I am a millionaire and Gaskon believes he* is a millionaire.

We can replace this with:

(6) Each of two persons, Gaskon and me, remembers that he* is a millionaire.

It appears that 'I' is eliminated from the 'that' clause; however, it is shifted to the main clause. So this is not really a case of complete eliminability.

Another case in which a use of 'I' is eliminable in favor of a use of 'he*' is when we make a report of what someone asserts. For instance, suppose Privatus asserts 'I believe that I am a millionaire'. For everybody else, Privatus' first token of 'I' must yield some description of Privatus, but the second token of 'I' must be replaced by a token of 'he*'.

However, Castañeda does not mention the fact that the use of 'I' could be implicit in a use of 'he*'. In this case, eliminability is not clearly established.

Before closing this section on Castañeda, I want to discuss Castañeda's discussion of a suggestion by Carl Ginet, according to which 'he*' can be replaced by using 'I'. The proposal by Ginet is the following:

For any sentence of the form "X believes that he* is H" there is a corresponding sentence that contains no form of 'he*' but that would in most circumstances make the same statement. The corresponding sentence that will do the job, I suggest, is the one of the form "X believes (to be true) the proposition that X would express if X were to say 'I am H' or perhaps more clearly "If X were to say 'I am H', he would express what he (X) believes".

Castañeda objects to this formulation on pragmatic grounds. He thinks that 'Saying' must be replaced with 'assertively uttering'. Even this, according to him, does not suffice given that one who says 'I am H' may express in context something completely different from 'I am H'.

2.2 John Perry

Perry (1979) deals with the problem of the essential indexical in relation to utterances such as:

(7) I am making a mess.

Perry takes utterances such as (7) as having a motivational force which utterances corresponding to (7) where 'I' is replaced by a definite description (e.g. the messy shopper) do not have.

There are at least two examples Perry uses to show what is distinctive about the essential indexicals. The first one is that of the messy shopper. I am at the supermarket; I see a trail of sugar on the floor and I follow the messy shopper who caused it. However, when I realize that I am the messy shopper, I stop and I rearrange the torn sack of sugar. Clearly, the thought 'I am making a mess' has a motivational force which the equivalent 'The messy shopper is making a mess' does not have. The other example Perry uses is the following. A professor has a meeting at noon. He knows all the while that he has this meeting at noon; however, it is only when he thinks 'The meeting is now' that he goes to the meeting. Again, the use of the essential indexical has motivational force.

Perry tries to solve this problem by discussing a theory of propositions along the lines of Frege. He takes belief to be a relationship between a person and a proposition. The proposition believed consists of an object and a predicate which is attributed to the object. Perry focuses on the idea that the proposition may contain a **missing conceptual component**, say a Mode of Presentation of an object. Then he wonders if the essential indexical corresponds to some concept that fits the speaker/thinker uniquely

when he thinks/says 'I am making a mess'. Perry's answer is that recourse to a concept that fits the referent uniquely will not do the job required. For example, even if I was thinking of myself as the only bearded philosopher in a Safeway Sore West of the Mississippi, the fact that I came to believe that the only such philosopher was making a mess explains my action only on the assumption that I believed that I was the only such philosopher, which brings in the problem of the essential indexical again.

At this point, Perry considers if a treatment in terms of 'de re' belief can offer a solution to the problem of the essential indexical. Perry says that the most influential treatments of 'de re' belief have tried to explain it in terms of 'de dicto' belief. The simplest account of 'de re' belief in terms of 'de dicto' belief is the following:

> X believes of y that he is so and so
>   Just in case
> There is a concept α such that α fits y and X believes that α is so and so.

This is problematic because I can believe that I am making a mess even if there is no concept α such that I alone can fit α and I believe that α is making a mess. Another possible solution Perry considers is that of relativized propositions. Now, on a Relativized Proposition view, 'I am making a mess' is true or false at a time and at a person. The problem is, how do we individuate the person at which the proposition is true? If we individuate it through a description, then the motivational force of 'I am making a mess' is lost, since one can say that the statement is true relative the time t and the person 'the messy shopper', which is a description of the person who refers to himself through 'I'.

The solution which Perry offers is that we should distinguish between objects of belief and **belief states**. Belief states are more abstract than fully articulated objects of belief and they should include a perspective or a context as well as the inclination to describe the belief by making use of an essential indexical such as 'I' or 'now'. Such states are recognizable because they have motivational force. Suppose various people have used the sentence 'I am making a mess'. What is it that all these belief states have in common? They have in common the same motivational force (this is a functional characterization, as Chalmers (1996) would say), as well as an abstract structure in which the believer identifies himself through the use of the word 'I' in describing his belief and the context is enough for giving full articulation to this belief. We do not expect all thoughts entertained by use of 'I am making a mess' to be isomorphic, because they are identified in virtue of contexts that are different from one another.

Most importantly, we have shown that 'I' cannot be reduced to the α or to 'This α'. In other words, Perry has demonstrated the same properties

which Castañeda attributed to he*. It follows that Castañeda's 'he*' and Perry's 'I' are somewhat related.

2.3 Higginbotham (2003)

Higginbotham recognizes that there is something special about first-personal uses of pronominals such as those discussed by Castañeda. The merits of his discussion lie in his pointing out that constructions with PRO may even be more first-personal than uses of 'he himself' and in linking the issue of immunity to error through misidentification to the issue of the internal perspective in connection with PRO (in cases of verbs like 're-member', 'imagine', etc.). He claims that the propositional analysis articu-lated through the notion of anaphora and thematic roles is superior to the property-based view of Lewis and Chierchia. In fact, according to him, the property-based analysis of beliefs and attitudes 'de se' does not allow the theorist to explain 1) immunity to error through misidentification; 2) the internal dimension of PRO in complements of verbs such as 'remember', or 'imagine'. (We'll test this in a later section).

Higginbotham accepts Perry's idea that 'de se' attitudes involve a first-personal mode of presentation (involving sometimes the word 'I' or some related notion) and reformulates such a view through considerations based on anaphora and thematic relations.

Higginbotham also accepts Peacocke's (1981) consideration that a 'de se' thought involves the use of a mode of presentation 'self' which only the thinker and nobody else can use in reporting such a thought.

Higginbotham considers cases with PRO such as:

(8) John remembers PRO going to Paris

which is contrasted with (9) and (10)

(9) John remembers that he went to Paris;

(10) John remembers that he himself went to Paris.

The first-personal nature of (8) is expressed through a notation which in-volves self-reflexive thought:

(11) For x = John, $\exists$e, remember [x, e, ^ $\exists$e': go to Paris (σ (e), e')]

(8) is different from (9) because it involves an internal dimension. It is the internal dimension which apparently causes immunity to error through mis-identification. We can capture this 'internal dimension' through the expres-sion in logical form of a thematic role: the person who undergoes the ac-tion in question. So we can reformulate (8) through (12)

(12)   For X = John, ∃e, remember [x, e, ^ ∃e': go to Paris (σ (e) & θ
         (e'))].

With this elucidation in mind, we can explain the following facts:

> Only Churchill gave the speech
> Churchill remembers giving the speech
> :
> Only Churchill remembers giving the speech.

Surely someone who listened to the speech remembers that Churchill gave
the speech or remembers his giving the speech. But are the speeches which
Churchill remembers giving and which another person remembers hearing
the same kind of thought? At some level of abstraction they are. At some
deeper level, however, there are not. What validates the inference in the
deduction above is the fact that Churchill remembers giving his speech
from the inside. So in case he has forgotten giving the speech and
someone else informs him that, in fact, he gave the speech, Churchill can-
not (truthfully) say that he remembers giving the speech. Memory involves
an internal perspective in case PRO is used in the complement clause.
Thus, if one remembers falling downstairs, one must certainly have memo-
ries of sensations of pain; something which one need not have in case
memory is reconstructed through an external narration.

Higginbotham discusses an interesting question. He asks whether mad
Heimson who believes that he is Hume has numerically the same belief as
Hume. The question, put crudely, is whether the belief Heimson has in be-
lieving that he himself is Hume is the same as the one which Hume has in
believing that he himself is Hume. The answer by Higginbotham is ambiva-
lent. On the one hand, their beliefs are different, so much so that we must
say that, in believing he is Hume, Heimson has a false belief while in case
Hume believes he is Hume, we shall say that he has a true belief. This is
nicely expressed through an anaphoric treatment:

(13)   For x = Heimson, ∃e, believe [x, e, ^ (∃e') identical ((σ (e) & θ
         (e')), Hume,) e'].

Since σ (e) is anaphorically related to Heimson, there is clearly an **external**
component to that thought. However, Higginbotham says that at some
level of generality, we can say that Heimson and Hume have the same
thought

> ^ (∃e') identical (σ (e), Hume, e')

Higginbotham illustrates this through an analogy to two collapses of bridg-
es. Of course, in one sense two collapses of bridges cannot be the same
event, unless the bridges are the same. In another sense, we could say that

the collapses of two distinct bridges are the same type of event provided that the bridges have similar characteristics.

2.4 Recanati and immunity to error through misidentification

Recanati expatiates on the nature of 'de re' thoughts and subsequently reflects on the relation between 'de re' and 'de se' thoughts. First of all, Recanati clarifies that in order to have a 'de re' thought, one must think of the object through a mode of presentation. However, the mode of presentation is irrelevant to truth-evaluation of the thought. To have a thought 'de re' about object x, there must be an **information link** between the object and the subject. Consider the thought that 'That man is drunk'. Here there is a demonstrative link between the subject of the thought and the object and the object is determined through a demonstrative mode of presentation – that is a relation of acquaintance with object x based on perception. However, as Recanati says, the property of being seen by the subject (that is the particular relation of acquaintance) does not appear in the content of the thought. According to Recanati, 'de re' modes of presentation involve contextual relations to the object. The object the thought is about is the object which stands in the right contextual relations to the thinking subject. In general, 'de re' thoughts are based on relations in virtue of which the subject can gain information about the object. We call these **'**acquaintance relations**'**. The subject can be related to the object through a **perception relation** or through a **communicative chain**.

What determines the reference (the particular relation of acquaintance with the referent) is something external, not represented by the content of the thought. Recanati clarifies that, by this, he means that no constituent of the thought stands for that relation of acquaintance. Recanati finds an analogy between the acquaintance relations that determine a referent for a pronominal or a definite description and the conventional meaning that determines the referent of the indexical 'I'. It would be mistaken to identify the referent of 'I' (of a token of 'I') with the character of this word.

Recanati identifies modes of presentations with **files** opened up when one is in the appropriate contextual relationship to an object. The file can also contain information about the properties of the object made available through a relation of acquaintance. The file is a mental particular that bears certain relations to an object. A file may be opened by encountering a particular object.

Demonstratives involve the creation of temporary files. When the situation one encounters is no longer available, one will have to replace this file with a new one, identifiable through a definite description. The file is merely a mode of presentation that allows one to provide solutions to Frege's puzzle, among other things.

A specific file is the 'self' file. A self-file contains properties which one is aware of through proprioception, which provides information available to nobody else.

Recanati clearly states that a 'de se' thought is a thought about oneself that involves the mode of presentation EGO. To make clear the distinction between 'de se' and 'de re' thoughts which are accidentally 'de se', Recanati uses an example by Kaplan (1977). When I say 'My pants are on fire' I am having a thought about myself (as determined by proprioception, e.g. the feel of burning on the skin). However, if I look at a mirror and I see a person who looks like somebody else, I may say 'His pants are on fire' with no implication that I am having a thought about myself determined by proprioception.

Recanati relates the property of immunity to error through misidentification to 'de se' thoughts and arrives at the conclusion that it is not the case that all 'de se' thoughts share this property.

Recanati discusses examples that are due to Wittgenstein, showing that proprioception determines 'de se' thoughts displaying immunity to error through misidentification. When I say 'My arm hurts' I say this because I have an inner experience about which I cannot be mistaken. Instead, if I say 'My arm is broken' basing this on visual experience of a broken arm which I mistake for my own, it is clear that my statement relies on the premise d is broken; d = that arm; d = c (my arm). Since the premises on which my statement rests involve identification (d = c), then I can be mistaken about c = d and the resulting statement can be mistaken too. Following Evans (1982), Recanati claims that 'de se' statements can also involve bodily properties. Since the attribution of bodily properties can be determined either through proprioception or visual experience, it turns out that a statement such as 'My legs are crossed' is ambiguous. On one interpretation, it shows immunity to error through misidentification. On the normal visual perception reading, it is vulnerable to error through misidentification.

Suppose I say 'My legs are crossed' on the basis of visual experience. Then I can fail to note that these are John's legs. My statement a is F rests on the identification a = b and on the judgment b is F. Since there is a misidentification component, misidentification can occur.

Recanati focuses on one kind of statements which is implicitly 'de se'. When we say 'Pain' or 'There is pain', we are saying that there is a pain which the subject is experiencing even if we are not explicitly representing the subject in the content. We can say that the content of the conscious state is not a complete proposition but the property of being in pain.

Implicit 'de se' statements are clearly immune to error through misidentification, since they are based on proprioceptive experience. Immunity is retained because the statement does not rest on premises such as b is F and a = b. It is not based on an identification act.

In the conclusive section of his paper, Recanati discusses the ideas by Lewis (1979), in particular the reduction of 'de re' to 'de se' thoughts and its relation to an egocentric perspective on the attitudes. First of all, it should be noted that, when discussing 'de re' thoughts, Lewis incorporates the acquaintance condition into the 'de re' thought. So 'John believes that Mary is pretty' comes out as

$\exists x = $ John , $\exists y = $ Mary, such x is acquainted with Mary, who has the property of being pretty.

The reason why this is done is that Lewis wants to reduce all belief to belief 'de se'. Now, while in case of belief that is genuinely 'de se' (Mary believes she is pretty), belief 'de se' can be reduced to attribution of a property to the self, this cannot be done in the case of belief 'de re', unless the acquaintance condition is incorporated into the content of the thought. In other words, this is due to a conception of the attitudes that is too egocentric.

PART II

3 Pragmatic treatments

In this section, I will report three types of pragmatic treatments. Capone (2010) is a treatment based on Relevance Theory considerations. Jaszczolt (this volume) is based on her general theory of Default Semantics and merger representations and seems to be a step forward towards a contextualist theory of 'de se'. Huang (this volume) is based on a neo-Gricean theory of anaphora and assimilates 'de se' and logophoricity.

3.1 Capone (2010) and the pragmatics of 'de se'.

Capone (2010) is an eclectic treatment combining linguistic, cognitive and philosophical considerations in order to predict pragmatic results. His approach is eclectic and is a rethinking of pragmatic scales à la Levinson/Horn/Huang in terms of considerations based on Relevance Theory. His ideas, in essentials, are very simple. If one accepts Higginbotham's considerations on the logical forms of 'de se' and 'de re' beliefs (to pick up just the most representative of the attitudes), it goes without saying that the logical forms of 'de se' beliefs entail the logical forms of 'de re' beliefs. Hence the possibility of pragmatic scales. On a strictly Relevance Theory line of thinking, the ranking of 'de se', 'de re' in terms of entailment entails a ranking in terms of informativeness. Then it goes without saying that a 'de se' interpretation of a pronominal (where both interpretations are possible) is informationally richer and, thus, following the Principle of Relevance, greater Cognitive Effects, with a parity of cognitive efforts, are pre-

dicted. One may also concoct stories in which a 'de se' interpretation leads to some kind of action which the 'de re' interpretation would never cause (See Perry; see also Capone 2010, the pill story). If this line of thought is accepted, then we can easily explain why

(14)   John believes he is clever

tends to be associated with a 'de se' interpretation. As Jaszczolt (1999) would say, this interpretation tends to be 'default'. Of course, its default status derives from the way the mind is predisposed to calculate inferences and also from the human tendency to standardize or short-circuit familiar inferences that are probabilistically high.

According to Capone, one may also investigate scales such as the following:

(15)   John wants to go away;

(16)   John wants him to go away;

(17)   John remembers going away;

(18)   John remembers his going away.

The use of the marked pronominal, instead of less marked PRO, tends to invite an interpretation which is complementary to that associated with PRO. This can be explained in terms of M-scales in the framework of Levinson/Horn/Huang or in terms of cognitive efforts, which tend to pick up an interpretation disjoint from the one associated with the expression involving least amount of cognitive efforts.

Capone also explains certain interesting examples by Perry, which seem to illuminate further the boundary between semantics and pragmatics. Readers are referred for these to Capone (2010).

Perhaps the most interesting discussion found in Capone (2010) concerns the internal dimension of PRO, which is connected by Higginbotham to immunity to error through misidentification. Capone argues that, in connection with certain verbs, such as 'remember' the internal dimension of PRO is guaranteed by semantic effects up to a certain point, and that at least part of the internal dimension associated with PRO is due to pragmatic effects driven by typical scenarios. With some other verbs, such as 'expect', Capone argues that it is less likely that the internal dimension of PRO is a semantic inference and opts for the view that it is a pragmatic increment. Other verbs such as, e.g. 'knows how' are examined.

The most radical part of Capone's ideas is that Higginbotham's semantic elucidations for verbs such as 'remember', 'imagine' etc., refined and important though it is, suffers from a certain weakness, which cannot be remedied semantically, but only pragmatically. Leaving aside formal notation, Higginbotham's treatment of (19)

(19)   John remembers walking in Oxford

comes out as 'The agent of the remembering/John remembers that the agent of the walking was walking in Oxford'. But then John should know that he is the agent of the remembering, a grammatical expertise which may not be acquired by anyone at all (See also Davis (this volume) on this problem). Furthermore, this analysis presupposes that there is a unique thinker of this thought and thus it is incompatible with the possibility that someone else, say God, is having the same thought. (This difficulty was raised by Neil Feit (personal communication), and is to be taken seriously). The third kind of problem is that, despite the fact that Higginbotham says that these constructions are first-personal, there is nothing in their logical form that makes them first personal, unless one allows as normative the inference 'I = the believer of this thought' (and here endless discussions could arise on how obvious, normative or natural this inference is or should be).

My own view is that the first personal element EGO must somehow be incorporated into the propositional form, *not* at the level of semantics, but at the level of pragmatics. EGO can be taken to be a concept of mentalese, a mode of presentation through which the thinking subject thinks of himself. It is not necessarily a word used or a deictic requiring interpretation, since the EGO concept can be used in two cases. It can be used when the subject thinks of himself, in which case EGO requires no interpretation procedure, but is essentially a concept of mentalese linked anaphorically with previous acts of thinking (and the question of reference is not of any importance for the thinking subject or is at most a question of presuppositions). Otherwise, it can be used when a subject is attributed a 'de se' thought, in which case interpretation needs an anaphoric chain of interpretation linked to a thinking subject and the question of reference is of some crucial importance. We need pragmatic intrusion – and here the theories due to Levinson (2000), Carston (2002), Sperber and Wilson (1896) come to our aid. Accepting that semantics can be underdetermined, we may incorporate certain elements through pragmatic intrusion. Considerations of parsimony may even lead us to think that pragmatic intrusion, in this case, is to be preferred to incorporation of the component EGO at the level of Higginbotham's logical form.

What reasons have we got against incorporating EGO into Higginbotham's logical forms (say through identification)? There are constructions such as the following where EGO would not be required, although they may well be captured by Higginbotham's analysis of 'de se':

(20)   Anyone who thought that the believer of this thought was happy was
         certainly happy: anyone who thinks he is happy, is happy.

Now, I want to dwell on the possible replies to Neil Feit's objection to Higginbotham. First of all, I voice Neil Feit's opinion:

> Another reason why I do not think Higginbotham's account can handle 'de se' cases adequately is this. It seems possible that somebody could believe (correctly or mistakenly, it does not matter) that he is not the only thinker of a certain thought, for example he might believe that God is thinking it too. More generally, he might think that he is not the only thinker of any of these thoughts. But, even with this, it seems he could have a 'de se' belief. But on Higginbotham's view - and other similar views – such a belief amounts to 'the believer of this thought is F'. This cannot be what the belief amounts to, however, since he does not think there is a unique believer, the believer of his thought. Moreover, if someone else (God perhaps) really is having the same thought, then all Higginbotham-style beliefs are false, but he could surely have some true 'de se' beliefs (personal communication in Capone (2010)).

Now, of course, when I say 'John believes he is not crazy' I do not have in mind believers of this thought other than John. And, if it is somehow in the background that God and I are the only believers of this thought, it is not the case that I thereby express or intend to express that John believes that he and God are not crazy. Nor does Higginbotham think so (presumably). The examples by Higginbotham, such as 'John remembers walking in Oxford', are less vulnerable to Feit's objection. Higginbotham's tacit reply could be that, given the anaphoric properties of PRO, it goes without saying that the unique believer of this thought (the agent of the remembering) is John and not God (Is not anaphoric coindexation enough to make this clear?). It is not even necessary to resort to the more complicated story that makes the subject of the walking plural: the believers of this thought, assuming a kind of metaphysics in which wherever one is, God is there too. (And if talk of God is infused into Higginbotham's story, then certain metaphysical consequences would not be completely absurd).

Of course, the problem raised by Neil Feit becomes more cogent not in the cases of constructions dear to Higginbotham, but to the more interpretatively ambiguous:

(21)   John thinks he is happy.

Here pragmatics is abundantly involved, as even Higginbotham has to admit, and it goes without saying that if Feit's objection has some cogency, this goes up to some point, because if, by pragmatic intrusion, we create an anaphoric identity link between the thinker of this thought and John, the uniqueness condition is valid and thoughts about God's having the same thought are out of the question. (So either we assume that some pragmatic linking between 'John' and 'the believer of this thought' is presupposed, making Feit's considerations otiose, or one needs to insert the anaphoric link explicitly into the semantics).

3.2 Jaszczolt on 'De Se'

Jaszczolt's views about 'de se' need to be discussed with reference to her framework based on Default Semantics. Her view is based on a rigorously parsimonious acceptance of only those levels of meaning that are necessary (indispensable), in line with **Modified Occam's Razor**. Accordingly, she posits compositionality at the level of merger representations, rather than at the level of sentential meaning. Since sentential meaning is part of merger representations, this parsimony ensures that compositionality is calculated only once and that, when compositionality seems to break down at the level of sentential meaning, it percolates down to the sentential components from the merger representations, where pragmatics ensures compositionality. Now, the question which Jaszczolt tackles, one which is not devoid of theoretical interest, is whether 'de se' meanings belong to the grammar component (or the level of semantics) or, otherwise, to the contextualist level of meaning. Which attitude should prevail, in this case: Minimalism or Contextualism? The emerging attitude is the one that is found in Jaszczolt (2005). Jaszczolt, in fact, believes that minimalism, properly construed, is compatible with contextualism. In particular, she takes grammar (the grammatical resources that are taken to be responsible for 'de se' interpretations) to provide defaults which are either promoted at the level of the contextualist component of meaning or, otherwise, abrogated through cancellation, costly thought this can be. Jaszczolt takes issue with scholars like Chierchia who claim that pronominals (e,g, PRO) are fundamentally responsible for 'de se' interpretations, and she clarifies that other types of constructions can be responsible for first-personal meanings as in the following examples (used in a first-personal way):

(22)   Sammy wants a biscuit;

(23)   Mummy will be with you in a moment.

Jaszczolt also proposes examples that divest grammar from its non-monotonic status based on cases in which an NP that is not a pronominal can be invested with pronominal, first-personal meaning, thanks to inferences accruing in context:

(24)   I believe I should have prepared the drinks for the party. In a way I also believed that I should have done it when I walked into the room. The fact is, the person appointed by the Faculty Board should have done it and, as I later realized, I was this person.

Now, this example can be taken in an ambivalent way. On the one hand, 'I' used in the first two sentences takes on the value of a definite description, once we arrive at the final sentence (The fact is….). Alternatively, on re-interpretation the NP 'The person appointed by the Faculty Board' could

acquire a first-personal meaning. The fact that various potential reinterpretations are latent does not deprive the example from the significance that it has for Jaszczolt: in other words it is not the level of grammar that can guarantee the first-personal dimension of a pronominal, but contextual interpretation is required as well.

So, the upshot of all this is that grammar only provides **defaults**, which can be overridden, even if with some cost, but they can also be reinforced at the level of the contextual component of meaning, where they can be fully promoted as utterance interpretations.

There are, nevertheless, some disturbing problems raised by Jaszczolt for my views expressed in Capone (2010). If grammatical resources, such as pronominals (PRO, I, etc.) can only provide defaults capable of being overridden in context, my view that Higginbotham's considerations need to be supplemented by an explicitly first-personal constituent like EGO seem to go by the board. If we follow Jaszczolt, EGO is not, by itself, sufficient to guarantee a first-personal interpretation, as we saw through example (24) (the pronominal 'he' here could very well be taken to mean 'The person appointed by the Faculty Board' on a suitable reinterpretation). Furthermore, as Jaszczolt claims, many NPs normally disjoint in interpretation from pronominals, can take first-personal readings ('Mummy', 'Sammy' etc.).

Furthermore Jaszczolt takes the view that a pronominal like 'he*' is associated with a first-personal reading by cancellable pragmatic inference, which is somehow contrary to the notion of pragmatic intrusion I have developed through many publications. I usually claimed that pragmatic intrusions that are indispensable to rescue an utterance from a logical problem (take for example the problem raised by Feit in connection with uniqueness) are not cancellable. I agree with Jaszczolt to some extent, as she also finds that the cancellability of the 'de se' inference is very costly, as in:

(25)   John Perry believes that he is making a mess but doesn't realize it is
         him.

(25) by Jaszczolt, however, cannot be a serious problem for my views, first of all because she grants that cancellability (abrogating the 'de se' inference) is a costly move. Secondly, the 'de se' interpretation arises only on condition that we identify 'he' with 'John Perry' by an anaphoric link and, thus, the first-personal reading is accessed only on top of this, let us say, possible interpretation. The cases like 'Mummy', 'Sammy' which Jaszczolt discusses in order to eliminate the view that 'de se' is a concept that is entrenched in the grammar, interesting though they are, only show that there are alternative expressive possibilities, which may very well be **parasitic** on the forms which grammar provides. Furthermore, the fact that there are constructions which are **interpretatively** ambiguous at least potentially,

such as 'John believes he is clever' does not preclude the possibility that certain forms of pronominals encode first-personal meanings. It is probably the discussion which Feit and I proposed in the section above which open the way for the possibility of 'de se' constructions needing a pragmatic increment involving the concept 'EGO'. Unfortunately, the radical question which Jaszczolt poses – a question which I find extremely intriguing – is that the concept EGO alone is not sufficient in articulated linguistic texts to ensure the grasp of a first-personal concept (see the interesting example by Jaszczolt reported in (24)). However, I want to defend myself by saying that even if we grant that in the articulated linguistic texts words can be ambiguous and can be interpreted in different ways and, therefore, there is nothing that can prevent EGO from being interpreted as a description (an ordinary descriptive NP), the concept EGO which I propose to use in inference must belong to some language of thought, some kind of **Mentalese**, which is completely disambiguated. And since pragmatic inference need not be dependent on written or articulated words, the words used in inferences (pragmatic or not) are words of mentalese that can be fully made explicit. What ensures that EGO and EGO are the same word of mentalese both for the speaker and the hearer and for the speaker and the many hearers is that such an inference is indispensable in rescuing the statement from the problems raised by Feit. If the speaker and the hearer had different EGOs in mind, by extending the interpretation work, the aim of this pragmatic explicature would be defeated. On the contrary, I assume that the speaker and the hearer share the task of making interpretations plausible by obeying a normative principle of Charity imposing that they amend possible logical deficiencies such as absurd interpretations or patent contradictions. Some cooperation and coordination work goes on between the speaker and the hearer and, thus, the multiple reinterpretations which the word EGO may undergo in articulated speech cannot be assumed in a pragmatic inferential work, which does not act only on explicit words, but on what is strictly required to make the interpretation work plausible (occurrences of Mentalese, in other words). Re-contextualizations leading us away from the concept EGO to NPs with various descriptive force are therefore not necessary and extremely costly. This is why hearers do not go for them.

Before closing this section on Jaszczolt, it is fair to point out that she manages to reconcile both minimalism and contextualism, by adding a level of merger representations where compositionality is operative, Modified Occam's Razor preventing compositionality from operating at the level of sentential meaning. Now, if these considerations make sense, it is clear that compositionality also works to combine components that are the result of pragmatic inference (the EGO concept I was in fact discussing) with components that are present in the sentential level. Thus a pronominal like 'he' that is potentially ambiguous at the level of semantics becomes an essential

indexical (he*) in the sense of Castañeda only after some basic compositional operations, like, for example, establishing an anaphoric link with some previous subject within the sentence (as Jaszczolt says, following van der Sandt, local accommodation is preferred and, thus, the anaphoric linkage occurs within the minimal syntactic projection (the matrix sentence usually) and then by gluing the EGO concept to the pronominal 'he'). The essential indexical is fundamentally the result of two logical operations; a) an anaphoric link within the minimal projected category; gluing the EGO concept onto 'he'. These operations occur at the level of the merger representations and thus allow the compositionality effects to percolate down the level of sentence. These operations occur at an inferential level; thus it is not to be excluded that pragmatic principles like for the example the Principle of Relevance are at work; yet it appears that Jaszczolt prefers to admit only a level of standardized inference and, thus, legitimately talks about defaults.

3.3 Yan Huang on 'De Se'

Yan Huang's treatment of 'de se' and pragmatics does not belong properly to the philosophy of language, being rooted in cross-linguistic analysis, a theory of anaphora and, also a theory of logophoricity. This discussion is, therefore, necessarily brief. I will nevertheless, try to sum up the essentials of this paper because they point to how a pragmatic treatment of 'de se' should be handled. Huang starts with the characteristics of a quasi-indicator to establish obvious analogies with long-distance reflexives and logophoric elements which he takes to be the counterparts of quasi-indicators in West African languages and in Asian languages:

(i)   A quasi-indicator does not express an indexical reference made by the speaker;

(ii)   It occurs in *oratio obliqua*;

(iii)   It has an antecedent, which it refers back;

(iv)   Its antecedent is outside the *oratio obliqua* containing the quasi-indicator;

(v)   It is used to attribute implicit indexical reference to the referent of its antecedent.

Huang agrees that expressions like 'he himself' or PRO are quasi-indicators in English and also mentions the presence of attitude ascriptions that can be partly 'de se' and partly 'de re'. The author discusses logophoric expressions in West-African languages and long-distance reflexives in East and South Asian languages showing that they can both function as quasi-indicators in the sense of Castañeda. Logophoric expressions are expres-

sions that can be used to mark logophoricity or logophora. By logophoricity one means the phenomenon whereby the perspective of the internal protagonist of a sentence or discourse, as opposed to that of the current external speaker, is being reported by using some morphological/syntactic means. According to Huang, it is hardly surprising that logophoric expressions are one of the most common devices the current, external speaker uses in attributing a 'de se' attitude to an internal protagonist. Huang points out that a logophoric expression usually occurs in a logophoric domain, namely a sentence or a stretch of discourse in which the internal protagonist is represented. In general, a logophoric domain constitutes an indirect speech. Logophoric domains are usually set up by logophoric licensers: logophoric predicates and logophoric complementisers (such complementisers being often homophonous with the verb 'say').

In Asian languages, since there is no special logophor, the essential indexical can be expressed by resorting to long distance reflexives. Long-distance reflexives in East and South Asian languages can be morphologically simple or complex. Marking of 'de se' attitude ascriptions is accomplished syntactically in terms of long distance reflexives. A long-distance reflexive is one that can be bound outside its local syntactic domain. Long-distance reflexivization occurs usually within the sentential complements of speech, thought, mental state, knowledge and perception.

In West African languages, the use of logophoric expressions is in complementary distribution with that of regular expressions like pronouns. As a result, any speaker of these languages intending coreference will also have to use a logophoric expression. If a logophoric expression is not employed, but a regular pronoun is, a Q-implicature will arise, namely neither a 'de se' interpretation nor a coreferential interpretation is intended.

Concerning Asian languages, while the use of a long-distance reflexive encodes both a 'de se' attitude and coreference, the use of a regular pronoun may or may not encode coreference, but *not* 'de se' ascriptions. So there is a scale <long distance reflexive, regular pronoun> modeled on Q-scales. The effect is that the unavailability of the semantically stronger long-distance reflexive will Q-implicate the speaker's intention to avoid at least one feature associated with it, namely the 'de se' reading. If the unmarked regular pronoun is not used, but the marked long-distance reflexive is used instead, an M-implicature is created, that is not only coreference but a 'de se' interpretation is intended.

A different paper would be required to cast such considerations in the framework of Relevance Theory. Suffice it to say that Huang's considerations work on the ranking of informativeness, which is also what Relevance Theory does. According to RT an interpretation that yields greater contextual effects is to be preferred to one which does not yield the same amount of effects, cognitive costs remaining equal. Implicatures/explicatures due to

the use of marked expressions can be predicted by Relevance Theorists by paying due attention to cognitive effort, marked expressions usually requiring greater cognitive efforts.

4   EGO or not EGO? (A Discussion of Castañeda and Perry)

While Castañeda (1966) in his seminal papers disseminated original ideas about 'de se' attitudes, and provided the basic examples alimenting the theoretical discussion, he was clearly at a fork in having to decide whether 'he*' was completely irreducible (a clearly radical and original claim) or whether it could be partially reduced, say by making use of the concept EGO, to appear somehow in the semantic/pragmatic analysis of uses of the essential indexical. The other horn of the dilemma is certainly constituted by Perry's ideas that beliefs 'de se' amount to specifications of mental states in which the concept EGO appears somehow (even if it could not be shown to be semantically present, it could be shown to be indispensable for a pragmatic type of analysis). While the considerations by Perry are quite straightforward and presumably presuppose the at least partial reducibility of 'de se' to the EGO concept, Castañeda's considerations about the irreducibility of 'de se' are fully articulated and explicitly deny that recourse to the concept EGO, even if invoked through pragmatic machinery, could be useful.

Consider, first of all, the claim that 'I' has **ontological** priority (such a priority consisting in the fact that a correct use of 'I' cannot fail to refer to the object it purports to refer). This claim is, in my opinion, reminiscent of the claim of immunity to error through misidentification; however, Castañeda limits this claim just to the first person pronominal and does not extend it, in the way Higginbotham does, to 'he*'. If Castañeda is right, 'I' is immune to error through misidentification. However, if Higginbotham (based on Shoemaker 1968) is correct, 'He*' is also immune to error through misidentification. This provides 'prima facie' evidence that 'I' and 'he*' are related (though we certainly do not want to say that 'I' is identical with 'He*'. Is it possible that the relation between 'I' and 'He*' is due to the fact that either 'I' should be expressed in terms of the concept 'He*' or that 'He*' should be expressed in terms of the concept 'I'? While, on the basis of these considerations alone, we cannot establish which direction we should go, we have at least established that it is implausible to think, the way Castañeda does, that 'He*' and 'I' are NOT related.

Feit (personal communication) in response to this, says:

> I am not sure these are the same kinds of immunity to error. One kind is this: you cannot fail, or 'I' cannot fail, to refer. But the kind Shoemaker was interested in is different. It is this: you cannot be wrong in believing some-

thing because you misidentified somebody else as yourself. One problem with Higginbotham's paper, as I see it, is that he does not clearly distinguish these two different phenomena.

> For example, consider my statement: "I was born on Corsica." There is immunity here in the first sense above, since my use of 'I' cannot fail to refer to me. However, there is no immunity in the second sense. That is, there is vulnerability to error through misidentification in Shoemaker's sense. For suppose I make my statement because I have just learned that Napoleon was born on Corsica, and because I mistakenly believe that I am Napoleon. This example is from Pryor (1999).

In reply to Feit's considerations, I need to say that my approach is, like Shoemaker's, both a semantic and an epistemological approach. In particular, the epistemological approach is taken to be supervenient on the semantic approach. The case discussed by Feit (taken from Pryor 1999) is a case of an inferential extension to human knowledge.

But the central cases of Immunity to Error through Misidentification are clearly not those where the subject (in the third person) is logically independent of a verb of propositional attitude but one which is embedded in the object of an attitude ("I remember I was walking in Oxford": the question of IEM is about the second subject). Clearly I cannot say 'I remember I was born in Corsica' because I believe I am Napoleon and I just learned that Napoleon was born in Corsica. The reason why I cannot remember facts deduced through logical deductions is that remembering involves an internal dimension, as you remember from the inside; instead, logical deductions involve a dimension which is external to the event remembered. The internal dimension may be partly semantic, partly pragmatic; but whatever it is, it contributes to excluding the magic tricks of deduction and most importantly the idea that the thought cannot be first-personal or that the subject can fail to refer to himself. In any case, a person who thinks of himself as 'I', even if he does attribute himself the property 'I = Napoleon", still may think of himself as himself, despite the additional identification 'I = Napoleon". The example by Feit can only serve to illuminate the question of whether identification is always primary or whether there may be two types of identification: 'primary' and 'secondary' identification. My claim would still be that primary identification, being independent of secondary identification, can work well to ensure that IEM occurs even in sentences like the one Feit brought to my attention. Furthermore, we need to consider what happens when we replace 'remember' with 'believe'. Consider the statement 'I believe that I was born in Corsica'. Suppose I believe this as a result of someone having led me to a misidentification of myself. I was led to believe I am Napoleon and then I deduced that I was born in Corsica. Since belief does not imply an internal dimension, the magic tricks of logical deduction cannot be excluded. Yet, paradoxically, to use some appa-

ratus on the pragmatics of belief by Igor Douven (2010), after learning that I am Napoleon and after deducing that I was born in Corsica, I may well continue to remember that I was born in Corsica, but forget that I am Napoleon. IEM in this case occurs and shows that the identification I= Napoleon in only secondary and cannot in any way prevent the thinker from thinking of himself under a neutral mode of presentation such as 'EGO'.   Second, Castañeda argues that 'I' has only **partial epistemic priority**. In other words, in order to remember things that happened to me or statements about me (the kind of statements that are found in encyclopedias, history books, etc.), I should eliminate modes of presentation of myself other than 'I', because this is the only way to be sure that I do not lose sight of the connection (of identity) between such modes of presentation and the mode of presentation 'I'. (If I forget that Julius Caesar was my name I may very well forget most of what history books say about me (I being Julius Caesar). To ensure transmission of memories in my mind, I must reduce all other modes of presentation of myself to the bare 'I'.[2] Now while this has some cogent plausibility (given all the other considerations Castañeda said to induce us to believe that 'de se' attitudes have a special status, distinct from 'de re' attitudes), Castañeda refuses to accept that eliminability of modes of presentation of 'I' is necessary to ensure that memories are retained when we report such states of the world in the third person, through statements such as (26)

(26)   Caesar believes he* conquered Egypt.

Yet, on the one hand it is clear that sentences such as (27) are transformations of sentences such as (27):

(27)   Caesar: I conquered Egypt.

Sentences like (26) are parasitic on the logical properties of sentences such as (27). Furthermore, preserving memories of facts such as 'Caesar conquered Egypt' may very well depend, even if in exceptional cases, on what Caesar may be able to report himself. Since, in cases of amnesia, he may not be able to report 'Caesar conquered Egypt' but he may only report 'I conquered Egypt' it is clear that transmission of memories through utterances such as 'Caesar remembers conquering Egypt' ultimately depends on eliminability of any other modes of presentation of 'Caesar' in favor of 'I'. Thus, it is demonstrated that 'he*' preserves all the logical features of 'I', as far as the eliminability of modes of presentation other than 'I' are concerned and, therefore, is shown to be closely related to the use of 'I' (whether in thought or in speech).

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[2] This consideration is of great importance. It appears to follow independently from Igor Douven's (2010) paper on the pragmatics of belief.

Third, Castañeda wants to establish that 'he*' is ineliminable, while 'I' can be (logically) eliminated. He claims that (28)

(28) I believe that I am a millionaire and Gaskon believes he* is a millionaire

is logically equivalent to (29)

(29) Each of two persons, Gaskon and me, remembers that he* is a millionaire.

However, all Castañeda has shown that the first person has been removed from the embedded proposition to ascend to the root clause. This result is not particularly cogent and does not prove that 'I' can be easily eliminated.

Fourth, Castañeda takes issue with Carl Ginet who transforms 'X believes that he* is ill' into the (presumably equivalent statement) 'X believes the proposition that X would express if X were to say 'I am ill'. Castaneda objects that the notion of 'saying that' would have to be enriched pragmatically. But the real objection to be raised is that one moves from an indicative sentence to a sentence that is heavily modal; and this is counterintuitive. However, Castañeda does not consider the possibility of pragmatic enrichments such as:

(30) John believes that he is ill (John thinks of himself under the mode of presentation 'Ego').

After all, it is this pragmatic enrichment which Castañeda's famous asterisk indicates. Castañeda wants to opt for a more radical thesis, according to which he* cannot be reduced to a simpler semantic/pragmatic analysis, but by doing so he ends up in trouble because he ends up giving up the possibility that immunity to error through misidentification which is notoriously associated with 'he*' depends on some pragmatic enrichment of 'he' (that is related to 'I') and, thus, makes it impossible to transfer at least the concept of immunity to error through misidentification associated with use of 'I' to the use of 'he'.

5   Immunity to Error through Misidentification is the Result of Pragmatic Intrusion

If my considerations on what Castaneda says are correct, immunity to error through misidentification is a property which 'de se' constructions inherit from the property of the 'first-person'. However, if my claim that 'de se' constructions involve use of an implicit EGO component through pragmatic intrusion, it cannot be true that immunity to error through misidentification is a semantic property of 'de se' constructions, although we can legitimately say that it is a pragmatic property of 'de se' constructions, being deriva-

tive from the EGO component incorporated into 'de se' constructions through pragmatic intrusion.

Before proceeding, I want to cast aside some considerations which may jeopardize my discussion so far. Feit (personal communication) says:

> The speaker of a 'de se' attribution (such as 'John believes that he* is clever') can fail to refer to the alleged believer, so there does not seem to be the kind of immunity in which 'I' cannot fail to refer. But the other kind of immunity (e.g. Shoemaker's) does not seem to be at all linguistic. One and the same belief can be immune to error when it is believed on first personal grounds (like introspection etc.), and yet vulnerable to error when it is believed on other grounds. So, it seems to me that nothing in the semantics or even pragmatics should guarantee immunity. On this point see Pryor 1999 and Recanati 2009. (Neil Feit, personal communication)

My reply to Feit is brief. Concerning the fact that the speaker of 'de se' attributions can fail to refer to the believer does not worry me. IEM is only limited to the relationship between the subject of the belief and himself. Concerning the second worry, I note that in this paper I try to reconcile epistemology and semantics claiming that IEM reconciles both dimensions. However, I want to bring out the consideration that epistemology is supervenient on the semantics. How can one introspect without using the first person? Is it plausible that there can be a phenomenon called 'introspecting' without first person attributions and the IEM which it can guarantee? My answer is negative.

Now, after this detour, I want to stress that my idea that IEM derives from pragmatic intrusion is not an implausible speculation. However, before taking a definitive commitment, I want to explore further the consequences of Higginbotham's claim that Lewis' property-based treatment does not do justice a) to the internal dimension of PRO/de se constructions; b) to immunity to error through misidentification. Let us put this claim to the test immediately. Lewis, and Feit after him, claim that a sentence such as:

(31)   John believes he is clever

can be represented as:

(32)   John attributes to himself the property: being clever.

Can (32) vindicate the idea of an internal dimension being associated with PRO? If (32) is interpreted, as is most plausible, as (33):

(33)   John attributes himself the property: PROarb being clever

it is clear that PROarb cannot be associated with an internal dimension. There is some inter-subjective property which anyone at all can have, and which is not specific to anyone at all: hence there can be no internal dimen-

sion attached to this property. However, Lewis or Feit could insist that although there is no internal dimension associated with PRO, internalization can occur through attribution of the property (perhaps a sort of semantic effect of the predicate on the object). The doubt remains that if PROarb expresses an intersubjective dimension, even by a relation of self-attribution, it will end up expressing an intersubjective dimension and NOT an internal dimension. The situation becomes more complicated when verbs such as 'remember' are considered. Consider (34)

(34)   John remembers falling down the stairs.

Now, undoubtedly it is difficult to transpose this through a Lewis-style analysis; the most we can say is that John attributes himself the property: PRO arb falling down the stairs. But PROarb deprives the property of any internal dimension at all.

I propose that we leave this undoubtedly complicated task to the followers of Lewis. (one way to solve this problem would be to resort to radical pragmatic intrusion and claim that the internal dimension is grafted pragmatically to the semantics). For the time being, the most we can make of this discussion is to decide whether we should derive immunity to error through identification from the internal dimension of PRO (or of a 'de se 'construction) or whether we should derive the internal dimension of PRO (or 'de se') from immunity to error through misidentification. This is not a trivial question. We can make this question even more complicated by asking whether the internal dimension is derivable from the implicit use of EGO in 'de se' constructions. After all, we could have the following logical chain:

EGO > Internal dimension > immunity to error through misidentification.

If the logical chain above has some validity, and we can establish without doubt that EGO is a pragmatically enriched component of the 'de se' construction, then we 'ipso facto' show that the internal dimension of 'de se' and immunity to error through misidentification are consequences of pragmatic intrusion and, in particular, the incorporation of EGO in de se constructions.

Have we got independent support for such a line of thought? Recanati (2009) has insisted that not all 'de se' constructions involve immunity to error through misidentification and that proprioception is involved in guaranteeing immunity to error through misidentification. What is proprioception? While the discussion is undoubtedly complicated, Recanati distinguishes between feeling that something is the case and seeing that something is the case. For example, I can feel that my arm is broken or I can see that my arm is broken. In case I feel that my arm is broken, proprioception is involved and there can be no case for error due to misidentification (it is

proprioception that guarantees immunity to error through misidentification). If I see that my arm is broken, but I mistake your arm for my arm and I make an identification mistake, then immunity to error through misidentification is not guaranteed. While there is some truth in this discussion, it deserves deepening. However, unlike Recanati, instead of placing the burden on the distinction between perception and proprioception, I want to make immunity to error through misidentification depend (at least in basic cases like 'John thinks he is clever') on the awareness of the subject of the thinking experience. Of course, awareness of the subject of experience involves some kind of self-awareness and not proprioception proper or only perception, as the kind of immunity to error through misidentification in cases like 'John thinks he is clever' is different from the cases discussed by Recanati and does not concern objects of experience but subjects of experience. Thus proprioception may not be the right concept in this case, because it is not the case that the thinking subject is engaged in proprioception in thinking (with some appropriate exceptions, of course: This thought makes me nervous; this thought makes me sad; this thought made me tremble; this thought made me faint). Thinking is the essential relation necessary for establishing a thinking subject. It is the act of thinking that establishes the subject and the identity between the subject of thinking and the subject of the thought. While the person who thinks (35)

(35)   I think I am clever

is not particularly engaged in an interpretation process but provides the appropriate EGO concept by the act of thinking and this is enough to ensure immunity to error through misidentification, something different occurs in (36)

(36)   John thinks he is clever.

Here the hearer/reader must simulate (as noted by Igor Douven in this volume) an act of thinking and in simulating this act she supplies an EGO concept through inference. Of course, pragmatic inference, utilizing the principle of relevance, independently supports the simulation process and establishes the anaphoric link between John and 'he' and also supplies the EGO concept which is incorporated into the thought by pragmatic enrichment. Having done so, having established that John thinks of himself as Ego and that this is guaranteed by the act of thinking in itself, the hearer can simulate John's mental state and, in particular, the internal dimension of the thought (he thinks he is clever or happy because he experiences cleverness or happiness) and the internal dimension of the thought serves to reinforce immunity to error through misidentification, already supplied through the EGO component pragmatically. If the EGO component has been supplied

by the simulation of the act of thinking, one can also simulate that John **cannot** be mistaken about his own identity, that is to say about EGO.

From the above, I have deduced that the first-personal dimension of 'de se', as pragmatically implicated, is logically responsible for immunity to error through misidentification (we could also see this case as a case of immunity of error through misidentification being supervenient (in the sense of Chalmers 1996) on the ego-component of 'de se').

If, as I claimed, the EGO component of a 'de se' thought, is due to pragmatic intrusion, immunity to error through misidentification is a consequence of a pragmatic attribution in **reports** of 'de se' thoughts. In naturally occurring 'de se' thoughts which are not reported, it is the act of thinking and the identity between consequential acts of thinking that guarantees the EGO component, and, consequently immunity to error through misidentification. An opponent, at this point, may plausibly say:

> But of course there is no pragmatic intrusion here, since the thought is not reported. In what sense, then, is immunity to error the "result" of pragmatic intrusion – as in the title of this section?

While I grant that my answer to this stimulating and provocative question is tentative, and possibly needs further refinement, provisionally I am content with the idea that what binds the EGO concept to the thinker of the thought is a pragmatic process of coindexation. This process is made more visible when we have anaphoric chains (embeddings with multiple uses of 'I'). While surely the question of interpretation does not arise when the speaker speaks, the question of interpretation arises when the speaker remembers what he said. When the speaker remembers what he said he turns into someone equivalent to an over-hearer; and then matters of interpretation are relevant. Furthermore, the concept EGO becomes vacuous if it is not coindexed with some person in particular. And the coindexation process has some sense when the conversation makes use of other EGO concepts which are coindexed to different speakers. Furthermore, when the speaker tries to remember what he said, it is clear that pragmatics of belief as conceived by Igor Douven is applicable.

6 Why Immunity to Error through Misidentification is Logically Independent of the Internal Dimension of PRO/de se

Admittedly, the reasons I furnish in this section against making a logical connection between the internal dimension of PRO/de se and immunity to error through misidentification depend on some previous considerations on the inferential behavior of de se/PRO, discussed in Capone (2010). There I wanted to make the provision/expression of the internal dimension of

PRO/'de se' a pragmatic constituent of the report of the thought. However, after some discussion I moved towards the more balanced view that, in general, especially with verbs such as 'remember', the internal dimension of PRO is semantically associated with the specific construction (PRO, in our case). Then I have speculated that the internal dimension (constituent) supplied through the semantics is only partial or gappy (in line with views by Carston (2002) on semantic underdetermination) and that pragmatics is responsible in part for supplying a partial internal dimension. For certain other verbs, such as 'expect', 'know how', etc. I have speculated that the internal dimension constituent is fully provided through pragmatics.

Now, what are the consequences of the acceptance of the views above for the plausibility of the view that immunity to error through misidentification depends on the internal dimension of PRO/de se? The most immediate consequence would be that, in the most straightforward cases, like **'expect'**, or 'imagine' 'de se' constructions ('he*' or 'she*') should not be associated with immunity to error through misidentification. Thus, someone who expects to leave for Rome tomorrow may legitimately hold some doubts as to whether he himself is involved in the thought that he will leave for Rome tomorrow. But this is absurd. Immunity to error through misidentification must be granted for cases such as 'expect' and 'imagine' as well and this shows that immunity is not logically dependent on the internal dimension (which is implicated in these cases, if my view in Capone (2010) is correct.

In this connection, Neil Feit (personal communication) comments that:

> This is absurd, given one kind of immunity to error, but not absurd given another. So you need to be clear which kind is at issue. If I read about somebody, whom I take to be myself, but mistakenly, and what I read reports that this person will leave for Rome tomorrow, then I will expect to leave for Rome. But this expectation is not immune to error in the Shoemaker sense.

Let us see how one can reply to Feit. Suppose that I am at the airport and that in the waiting hall there is a big mirror. There is someone who resembles me closely (same clothes, same type of hair, same type of nose) and I take him (say John) to be myself. Suppose I read the information on the ticket he has in his hand that is about to leave for Rome. Then, considering that that person is to leave for Rome and has got a ticket in his hand and take him to be myself, I conclude that I can leave for Rome tomorrow and thus I expect to leave for Rome tomorrow. Then I expect to be able to leave for Rome tomorrow. Surely this is a false belief, one that crucially relies on misidentification. However, despite there being a secondary misidentification, there is not a primary misidentification, in the sense that I am attributing myself the property 'about to leave for Rome'. The property misattribution does not jeopardize the process of referring to oneself in the right way.

What other consequences follow from the fact that the internal dimension of PRO/'de se' is only partially semantically expressed and partially pragmatically articulated in cases such as 'remember'? If we grant the logical dependence between immunity to error through misidentification and the internal dimension of PRO, we paradoxically arrive at the conclusion that the greater the pragmatic enrichment in connection with the internal dimension of PRO/'de se', the greater the immunity to error through misidentification. However, I think nobody says or is willing to accept that immunity to error through misidentification is a gradable notion.

The internal dimension of PRO is useful in establishing immunity to error through misidentification only in those cases where there can be some doubt because a sentence is ambiguous. Consider, again an ambiguous sentence similar to one example by Recanati:

(37)   He thought his legs were crossed.

Depending on whether he was only seeing his legs crossed or was also feeling them (proprioception being involved), (37) presents (or does not) a case of immunity to error through misidentification. The internal dimension of the pronominal 'his' is clearly projected through a pragmatic enrichment and, thus, proprioception is responsible for promoting immunity to error through misidentification. The pragmatically enriched internal dimension and proprioception go hand in hand and serve to reinforce immunity to error to misidentification in the sense of disambiguating a sentence which is interpretatively ambiguous.

7   Wayne Davis and the Pragmatics of Belief

In this short section, I cannot do full justice to Davis' (this volume) important and intriguing considerations on 'de se' attitudes. I merely point out that they show a similarity to my considerations, even if I am more explicit on certain matters that are of concern to the semantics/pragmatics debate.

Some disturbing problems are introduced when we accept, as is natural to do, Davis' distinction between 'thinking' and 'believing' or 'thinking' and 'knowing'. The problem of 'de se' seems to be related to double concepts or parallel concepts such as 'thinking/believing' or 'thinking/knowing'. In fact, a sleeping person, surely knows something like the proposition that say he teaches at Cornell University but we are reluctant to say that in the file where the belief is stored there is any mode of presentation of the referent/knowing subject that is particularly relevant say to action. What kind of action could the thinking subject be involved in? The undreaming subject has knowledge files that are indexed to himself without recourse to any particular mode of presentation. The fact that the referent is identical with the knowing mind is enough to ensure that knowledge is identified in the right way and then put to use in the right way when the

sleeping subject becomes awake again. We do not need special words such as 'I' or 'Alessandro Capone' or 'the experiencer' or 'the knowing subject'. Identity in the knowing mind is established by the fact that memories are stored in the same mind. It is the files where knowledge is stored that establish identity and it is not even necessary to name those files. The files are in my mind and not in yours.

The sleeping subject, when he is not dreaming or when he is unaware of his dreams, cannot be an experience, a thinking subject, and cannot be involved in any real or mental action. Thus there is no reason to suppose that a special mode of presentation of the reference may be relevant to action or may be involved in different kinds of actions or be causally relevant to any action.

It follows that all cases of 'de se' thoughts that are genuinely philosophically interesting are those where we are faced with two coupled propositional attitudes: thinking and believing, thinking and remembering, thinking and expecting. Now I cannot clearly draw all implications of this new line of thinking inaugurated by Davis' genial remarks, but I can point out that something new may come out of this.

Davis thinks (in essentials) that 'de se' attitudes are to be explained by reference to deictic concepts. The thinking subject thinks of himself through a deictic. This is similar to what I have claimed myself, although Davis is more detailed. I was content with an 'I' concept, while Davis distinguishes between a deictic, a demonstrative and an anaphoric use of 'I'. The deictic use of 'I' is probably what is involved in 'de se' thoughts, deictic uses being licensed by what Davis calls 'presentations'. The thinker thinks of himself and has a presentation of himself that gives interpretation to his use (whether mental or verbal) of 'I'. I would probably depart from Davis in recognizing a dichotomy between the thinker's use of 'I' in thought, and the hearer's interpretation of 'I' or 'he*' in an ascription of thought. The thinker's use of 'I' in thought needs no special act of interpretation and involves immunity to error through misidentification in that no identity is needed or established, as there is no interpretation problem from the point of view of the thinker, who surely has a 'presentation' of himself which is perhaps tacit and who keeps track of himself and his identity through the act of thinking, rather than through the act of interpretation. The ascription of 'de se' attitudes (to someone else) involves an interpretation problem and tracking of the referent and mode of presentation used by the thinker either through a simulation process or through a pragmatic act of interpretation guided through the Principle of Relevance or both. The two perspectives are different and surely the use of 'I' in ascription of 'de se' attitudes involves both an internalized dimension and an external dimension. The deictic use discussed by Davis may be suitable to both dimensions, provided that we are clear that a 'presentation' or 'self-

presentation' is involved in the thinker's awareness of ego, while a simulation or pragmatic interpretation is involved in understanding the presentation which the thinking subject experiences. Perhaps it would not even be incorrect to say that we can speak of a deictic use when referring to the hearer's interpretation problem, while from the point of view of the thinker there is no interpretation problem and thus it is not a matter of establishing the content of the deictic thanks to contextual coordinates. All that is required is the thinking act and the thinking act is its own context and also its own content.

Before closing, should we be content with Davis's exposition? While surely Davis' story resolves the problems he himself raised to Higginbotham's theory (along the lines of the problems I myself discussed), he does so in an ambiguous way. Is the use of the deictic a semantic or a pragmatic component? I was clear that pragmatics was involved in establishing the ego concept in 'de se' attitudes – even in cases of PRO, which are particularly problematic for Davis since PRO does not receive content from a context and thus is not easily assimilated to a first-personal concept). If we accept the considerations by Davis, we should have a double interpretation process. The provision of an Ego concept and, then, the interpretation relevant to a context of use (but this I admitted through lavish use of anaphora). From the point of view of the thinking subject, however, there is no pragmatics, since he has direct introspective access to his/her own thoughts. Pragmatics is involved only from a third person perspective, that of a hearer who tries to reconstruct the speaker's thoughts and self-awareness.

8 'De Se' and Modularity of Mind: Cancellability?

Finally it is time to examine the issue of the cancellability or non-cancellability of the 'de se' inferences I have discussed at length. Non-cancellability *per se*, as Grice was well aware, does not militate against the pragmatic nature of an inference. I have claimed elsewhere that explicatures are non-cancellable and the motivation I gave for this is that explicatures tend to be motivated by problems in the logical form, when a sentence is perceived to be blatantly false or a logical absurdity and pragmatics is there to help and remedy the problem. Since the explicature is the *Deus ex machina* of the semantics, I have claimed in a number of publications that it is and should be non-cancellable. This seems to fit in with a modular view of pragmatic processes, as argued in a number of publications. (See Capone 2010, Capone 2011 for detailed arguments).

We saw that the incorporation of the Ego concept was the Deus-ex-Machina of the semantic treatment à la Higginbotham, protecting this treatment from all the objections raised by e.g. Davis (this volume). But we also saw that various contextual considerations especially those invoked by

Jaszczolt (this volume) could be used to show the contextual variability of 'de se' inferences.

One further reason for opting for a pragmatic treatment of 'de se' is, of course, the parsimony of levels that it affords us, as we can eliminate at least an important meaning component from the semantics, obtaining it for free from pragmatics.

One last reason for opting for a pragmatic level of meaning in 'de se' attributions is the differential mechanisms of 'de se' thoughts in view of what happens in the mental processes of the thinker and of what happens in the mental processes of the hearer. The hearer is in a different position, both with respect to calculation of the Ego component and of the anaphoric links within the 'de se' ascription and with respect to the attribution of immunity to error through misidentification. The disparity between the position of the thinker and the position of the speaker/hearer in connection with pragmatic inferences was noted in an article by Jeff Speaks (2006), in which the author by reflecting on such a disparity arrived at very surprising conclusions (one of these being the following, which I do not endorse: "The fact that a sentence S may be used in conversation to communicate (convey, assert) p can be explained as a conversational implicature only if S cannot be used by an agent in thought to judge (think) p (Speaks 2006, 6)). The disparity between the thinker and the speaker/hearers stance to the inference is due to the fact that luminosity is available in thought, introspection being a guide to one's intended meanings, while the meanings projected by the speaker and understood by the hearer in conversation do not rely on luminosity but on an explicit effort to get intentions across through contextual clues and cues.

While immunity to error through misidentification is presupposed for the thinker in virtue of the continuity afforded by the act of thinking (thus immunity seems to be an 'a priori' category of first-personal thought) and by the fact that in thinking the question of misidentification cannot arise; for the hearer, immunity is a logical consequence of the pragmatic inference involved in assigning an ego component to the 'de se' thought. Simulation and, also pragmatic interpretation flowing from the Principle of relevance are clearly involved.

The disparity between the speaker's perception of himself as himself and the hearer's ascription of 'ego' to the thinker has interesting consequences concerning cancellability. The speaker's perception of himself as himself is clearly non-cancellable; the hearer's ascription of EGO to the thinker of the 'de se' thought is driven by contextual clues which lead the interpretation process in a certain direction, from which it is impossible to go back. So both from the speaker's and the hearer's perspectives it is impossible to cancel the EGO component of the thought.

Implicitly, I have replied to qualms by Coliva (2003) about the idea that immunity to error through misidentification depends on the ego concept incorporated in 'de se' attitudes. Her main objection to this idea is that the use of 'I' in 'de se' thoughts (whether explicit or implicit) is not enough to guarantee a first-personal thought. Coliva speaks of the split between speaker's reference and semantic reference. Given this split (which has emerged especially in the discussions of Donnellan's attributive/referential distinction), it may not be correct to say that immunity to error through misidentification depends on the presence of a pronominal like 'I' in logical form. The case discussed by Bezuidenhout (1997) (Bill Clinton: The Founding Fathers invested me with the power to appoint Supreme Court justices) does justice to the ideas and doubts exposed by Coliva. In the example by Bezuidenhout 'me' is used attributively, and not referentially. Of course Coliva does well to address the issue of the pragmatic nature of the incorporation of the EGO-component in 'de se' attitudes. However, we get the impression that her skepticism on the idea of deriving immunity to error through misidentification is not completely justified, given the heavy presence of pragmatic intrusion in propositional forms. Given the non-cancellable character of the pragmatic inference which I posited in 'de se' thoughts, it should not be a problem that 'I' can be interpreted attributively, rather than referentially. Of course, my claim that immunity to error through misidentification follows from the Ego-like nature of 'de se' should be confined to cases where Ego is interpreted referentially. But this is, of course, presupposed by the 'de se' semantic/pragmatic analysis. Again, we should distinguish between the interpretation of the construction (e.g. I believe I am happy) on the part of the speaker, which heavily relies on Mentalese (the speaker has direct access to her own thoughts, and, thus, ego as used in 'de se' constructions is clearly and directly referential). When we examine the dimension of the hearer, we see that the interpretative problem of 'de se' constructions consists in assigning, through pragmatics, an inferential increment that makes the logical form more plausible than it would otherwise be. The pragmatic enrichment, thus, could not make use of an uninterpreted EGO component, but has to make use of an interpreted EGO component, a component that is referential and not attributive. Of course, if we accepted a view in which the EGO component were assigned at the level of the semantics (say by identifying PRO with 'I' or an EGO-concept), then Coliva's objections could be certainly and dramatically applicable. But this is one more reason for opting for a semantic/pragmatic treatment, rather than for opting for a semantic treatment only. In a sense, we owe to Coliva the intuition that pragmatic intrusion resolves problems that would otherwise be insuperable.

9 Conclusion

This paper has been loaded with theoretical considerations and their consequences. Presumably we have reached a stage in which, pragmatics, which originated in philosophy and was propagated outside philosophy giving impetus to communication-oriented linguistic views, can serve to throw light on philosophical topics. I cannot exaggerate the importance of seeing the phenomenon of immunity to error through misidentification as a consequence of pragmatic intrusion. It is true; we have reached a stage in which the theory has become loaded with various consequences of previously accepted views. However, it is the nature of interconnected considerations and interlocking ideas one finds in this paper, that makes it rich, by provoking novel and perhaps radical discussions of phenomena of which we knew little or nothing, before putting some thought to pragmatic intrusion.

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