

# Immunity to Error through Misidentification and (Direct and Indirect) Experience Reports

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**Abstract** In this contribution, we address the issues concerning the semantic value of Wittgenstein’s subject “I”, as in (i) “I have a toothache”, resulting from the use of predicates that involve first-person knowledge of the mental states to which they refer. As is well-known, these contexts give rise to the phenomenon of ‘immunity to error through misidentification’ (IEM): the utterer of (i) cannot be mistaken as to whether he is the person having a toothache. We provide a series of arguments in favor of a principled distinction between a *de facto* IEM, grounded in perceptual and proprioceptive judgments, and a *de iure* IEM, grounded in experience reports whereby the experience wears the experiencer on its sleeve. From this perspective, the no-referent account of subject “I” advocated by Wittgenstein/Anscombe is correct. In fact, we show how this analysis can be made compatible with a Kaplanian account of first-person indexicals, by identifying the speaker in the context of utterance with the person who has access to the reported private experience.

**Keywords** De se · immunity to error through misidentification (IEM) · semantics

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# 1 Introduction: Where the Puzzles Lie

The notion of *immunity to error through misidentification* (henceforth, IEM) is an offspring of the Wittgensteinian distinction between *I* as a *subject* (as in (1)) and *I* as an *object* (as in (2)):

- (1) I have a toothache
- (2) I am wearing red shoes

The distinction is clearly dependent on the predicate: Whereas *having a toothache* is something that, when I predicate it of myself, I have first-personal knowledge of, *wearing red shoes* is something that, when I predicate it of myself, I do not have first-personal knowledge of. Or, to put it another way, in self-ascriptions, some predicates refer to states that are accessible to us in a different way than they would be accessible to someone else, while other predicates are accessible to us in the same way as they would be accessible to others. This distinction between predicates has consequences for the use of the first-person pronoun. Whereas I might be mistaken as to whether I am the person wearing red shoes in (2), I cannot be mistaken as to whether I am the person having a toothache in (1). The question that this supposed asymmetry between (1) and (2) raises is how it should be explained.

Wittgenstein (1958), followed by Anscombe (1975), explained it through the idea that in (1), there is nothing that “I” refers to. Indeed, (1) should be analyzed on a par with utterances such as (3), where no one would think of finding a referent for “it”:

- (3) It is raining

A sentence like (1) should thus be understood as “it is toothaching”. This analysis has, rather understandably, not been popular. Most objections have concentrated on finding examples of IEM where there is undoubtedly a referent for the relevant expression and dismissing the Wittgenstein-Anscombe no-referent account as unable to account for them. For instance, in (4), it seems that the demonstrative “this” enjoys IEM, just as does “I” in (1), but clearly, it is not because it fails to refer:

- (4) This is red

Additionally, there are obvious entailments between (1), as pronounced by Bill, and other judgments such as (5) and (6):

- (5) He has toothache
- (6) Bill has a toothache

These entailments would be utterly mysterious if “I” did not refer in (1). So we are left with the question of why “I” in (1) enjoys IEM, while “I” in (2) does not, if both refer.

Shoemaker (1968: 556), commenting on the Wittgensteinian distinction between “I” as subject and “I” as object, introduced the notion of IEM, which he took to be specific to the first person, as follows:

Utterances such as [(1)] “are immune to error due to a misrecognition of a person, or, as I shall put it, they are immune to error through misidentification relative to the first-person pronouns”.

As Shoemaker’s comments make clear, it would be completely non-sensical, in fact *irrational*, to ask whether it might be someone else that is suffering from toothache. By contrast, the question of whether it might be someone else that is wearing red shoes would be perfectly acceptable and rational about a statement such as (2). More formally, Shoemaker (1968, 557) defines IEM as follows:

To say that a statement ‘*a* is  $\phi$ ’ is subject to error through misidentification relative to the term ‘*a*’ means that the following is possible: the speaker knows some particular thing to be  $\phi$ , but makes the mistake of asserting ‘*a* is  $\phi$ ’ because, and only because, he mistakenly thinks that the thing he knows to be  $\phi$  is what *a* refers to”.

One of the main questions we need to address is whether IEM is specific to first-personal self-ascriptions such as (1), or whether, in slightly different terms, there is something that distinguishes the first-personal variety of IEM from the variety of IEM that is found with other *essential* indexicals (see Perry 1993), as claimed by Prosser (2012), or with all singular terms used on the basis of experience, as claimed by Wright (2012). These two views presuppose that the Wittgensteinian distinction between (1) and (2) is a spurious one. We can in fact regard these views as *deflationary accounts* of IEM for two reasons: They treat the question as a matter of semantics rather than as a matter of the epistemology of the judgments involved; and they deny that there is anything special to the first-personal variety of IEM.

If one intends to claim (as we do) that there is something specific to such first-personal psychological self-ascriptions as (1), there are essentially two ways to go:

- (i) Showing that while first-personal psychological self-ascriptions do not have the monopoly of IEM, the kind of IEM that they enjoy is specific on both epistemological and semantic grounds;
- (ii) Denying that there is IEM outside of first-personal self-ascriptions.

We intend to show that though the second view is too strong to be right, the first is entirely correct. We will also show that disentangling the issues that should lead one – or so we argue – to endorse this view about IEM has a number of non-trivial philosophical consequences:

- (a) It involves distinguishing experience reports from perceptually or cognitively grounded external event reports;
- (b) It involves claiming that the difference between a *de facto* IEM grounded in perception and a *de iure* (or *logical*) IEM grounded in experience is based on the different epistemology and the different semantics of perceptual reports vs. experience reports;
- (c) It involves assigning experience reports an entirely different semantics with respect to perceptual reports;
- (d) It involves explaining how the non-referential uses of the first-person found in the cases of *de iure* IEM (direct experience reports) can be made compatible with a Kaplanian semantics (Kaplan 1989) of “pure” indexicals such as the first-person pronoun.

## 2 The First Issue: Are Perceptual Reports IEM?

It is by now widely held (see for instance Carpintero 2015 and the references cited therein) that perceptually-based external state reports such as (7) are IEM:

(7) That keyboard is black

Here is an example of how this claim is motivated (Carpintero 2015:14):

Consider for illustration a demonstrative case of IEM, “that keyboard is black”. In many cases (in core cases), fully understanding a demonstrative requires grasping from the context more reference-fixing information than just the one associated with the expression character. I have proposed to understand this by assuming that the character contains a determinable, being the demonstrated entity, to be determined in context. In the context assumed for the keyboard example, the further determination is given by perception; the demonstrated entity is the salient, perceptually available black keyboard. On the view outlined above, the asserted content is *x* is black, with the keyboard assigned to the variable, and it is presupposed that *x* is the perceptually salient black keyboard when that is produced—a presupposition pragmatically, contextually triggered. This is why the claim is a case of IEM.

We think that the claim that perceptual judgments such as (7) are IEM is based on a dangerous misconception, which arises by mixing up properties of experiences with properties of perceptual events. By definition, a cognitive act of perception consists in the attribution of a property *F* to an object *o* (Burge 2010, Soames 2015) and an error in the attribution of *F* to *o* can only be excluded on empirical grounds, based on the laws of perceptual psychology (these are the cases of *de facto* IEM that will be discussed below).

To put it shortly, and exemplifying on (7), there are principled reasons to believe that errors through misidentification can easily arise. More particularly, it is quite possible that I am simply mistaken in attributing the perceptual property *F* (*to be black*) to the relevant object *o* (i.e. the particular keyboard I am presently pointing to). Data from the neuropsychology of vision confirm that this certainly is part of a potential typology of errors, since we visually track objects in a way that is independent of the attributes that we assign to them. The claim that “the demonstrated entity is the salient, perceptually available black keyboard” (see quote above) is entirely unsupported. There is no sense according to which the “demonstrated entity” is necessarily given as black in the relevant event of visual perception, that is, there is no sense according to which the property “black” need be an inherent property of the “demonstrated entity”. To the contrary (abstracting away from the difference between “pure demonstratives” and “complex demonstratives”), we normally assign properties to objects *after* we have tracked objects, in a way that is absolutely not committal with respect to the properties that these objects may have. As a consequence, we may be wrong in assigning a certain property *F* to the object we have tracked, within a complex visual scene, independently of *F* and, arguably, of any other property. Thus, it may be the case that *F* is actually instantiated in the relevant visual scene by something different from the object *o* that we have tracked and that corresponds to the “demonstrated entity”. This would obviously turn (7) into a typical error through misidentification.

The following quotes from Pylyshyn (2007:12; 20–21) should sufficiently illustrate the points made above:

There is very good empirical evidence that under many common circumstances we do not re-recognize a token thing as the same identical thing previously encountered by checking its properties, and that indeed we could not in general do it this way because of the intractability of the problem of storing unique descriptions and matching such descriptions to solve the identity problem (or the “correspondence problem,” as it is known in vision science). Moreover, the properties of items often must be ignored, as when we notice only the configurational pattern that holds among tokens and not the properties of individual tokens. [...] This problem of keeping track of individual token things by using a record of their properties is in general intractable when the things can move and change properties. But the problem exists even for a static scene since our eyes are continuously moving, the lighting changes with different points of view, and so on—which means that the problem of unique descriptors applies to every thing in a perceived scene.

The point of this discussion is that the mental representation of a visual scene must contain something more than descriptive or pictorial information in order to allow reidentification of particular individual visual elements. It must provide what natural language provides when it uses names (or labels) that uniquely pick out particular individuals, or when it embraces demonstrative terms like *this* or *that*. Such terms are used to indicate particular individuals. Being able to use such terms assumes that we have a way to individuate and keep track of particular individuals in a scene *qua* individuals—even when the individuals change their properties, including their locations.

Arguably, on these grounds, given (7) as a perception-based external state report, both *de re* misidentification (based on the identity between two particulars:  $a = b$ ) and *wh*-misidentification (based on inferring that *a particular* has *F* from the fact that *something* has *F*) are actually possible (see Recanati 2012). Suppose for instance that within a dynamic visual scene, at a certain moment *t* the moving object *o* to which I refer through the demonstrative is no longer the object *o'* that I originally identified as endowed with *F*: Then (7) is false due to the fact that I misidentified *o* (which satisfies *F*) with *o'* (which also satisfies *F*). Suppose now instead that within the same dynamic visual scene, the object *o* to which I refer by means of the demonstrative is still the very same object *o* that I had originally tracked, but that this object is no longer endowed with the property *F*: then (7) may be false because though I am correct in believing that there is something that instantiates *F* at the moment I point to the object *o*, I am wrong in inferring from this that it is *o* that instantiates *F*.

If these observations about the working of perceptual psychology, and more particularly vision, are by now relatively uncontroversial and hardly support the view that (7), conceived of as a perceptual report, is IEM, why is there such a widespread consensus to the effect that demonstrations bring about IEM?

We submit that the source of this flawed conclusion lies in the combination of the semantics of the demonstrative with the interpretation of sentences like (7) as experience reports. Suppose in fact that (7) is interpreted roughly as (8), and uttered in a context in which I am fully aware of being the victim of an hallucination:

(8) It feels like that keyboard is black

In this context, (8) has no additional semantic content besides the report of the phenomenal properties associated with my internal mental state (i.e. the experience I am having). These phenomenal properties are unrelated to the environmental properties of a distal object whose physical properties (like, say, the light refraction properties of its surfaces) brought about the relevant perceptual event and its phenomenal correlates. In those conditions, it is entirely correct – we submit – to hold the view that for (8), interpreted as a faithful linguistic report of my experience, object misidentification is utterly impossible: At the moment  $t$  at which the experience takes place, the object immediately given as a keyboard in my experience is also immediately given as black, and the property of being black is immediately and unreflectively instantiated in the keyboard. It is thus meaningless to wonder whether what is black is possibly something else (distinct from that keyboard). However, it is quite clear that the conditions for IEM effects to arise involve nothing less than mapping a perceptual report (whereby an object is given in the representation independently of the property that is assigned to it) into an experience report (whereby phenomenal properties wear the object on their sleeve, as we will discuss below). This strongly suggests that the reason why (1) inherently involves IEM is that (1) is *inherently* an experience report, as such not susceptible of a perceptual interpretation. *De iure*/logical IEM is thus a property of inherently experiential reports, and enlarging the domain of IEM-effects to perceptual judgments, like (7) above, may be the source of serious confusion.

### 3 The Second Issue: Implicit *de se* and the Issue of Reference

In the literature, there is rather widespread agreement on the thesis that the non-referential effect of the first-person as found in (1) can be imputed to the fact that the sentient subject is not part of the semantic content expressed by the sentence, or, in cognitive terms, is not part of the representation associated with the sentence.

In his “Perspectival Thoughts” (Recanati 2007), Recanati summarizes this view in two different ways, which, it seems, Recanati regards as largely equivalent:

- (I) “Thoughts that are implicitly *de se* involve no reference to the self at the level of content: what makes them *de se* is simply the fact that the content of the thought is evaluated with respect to the thinking subject. The subject serves as ‘circumstance of evaluation’ for the judgment, rather than being a constituent of content” (Recanati 2007: 187–188).
- (II) “Or, to put it in slightly different terms, in such cases the content of the thought is not a complete proposition ascribing a certain property to an object (viz. the subject himself/herself): the content is the property, but to think the thought – or to think it in the relevant mode – is, for the subject, to self-ascribe that property (Loar 1976:358; Lewis 1979; Chisholm 1979; 1981)” (Recanati 2007: 188).

We think that these two formulations correspond in fact to two quite different insights. To appreciate this, it is useful to look in some detail at both definitions. The most obvious way of interpreting (I) is that the first-personal pronoun in (1) is not referential, in the sense that it introduces a parameter of evaluation of (1) in the metalanguage in which the truth-conditions for (1) are formulated. In a nutshell, (1) should then be interpreted as (9) below, whereby (9) is judged as true or false with respect to the sentient subject (the newly introduced parameter of evaluation):

(9) It is toothaching

Empirically, this represents a viable analysis, but the price to pay is giving up, for cases like (1), the standard Kaplanian interpretation of first-personal pronouns, according to which the latter directly refers to the speaker in the context of utterance (so, if (1) is uttered by Bill in  $c$ , the semantic content of (1) will be “Bill has a toothache”). Moreover, one should also explain why (1) is cross-linguistically expressed in the impersonal form in (9) to a much less significant degree than should be expected from (I). Thus, the relevant question is: Are we ready to pay this high price, which amounts anyway to imposing an ambiguous semantics on the first-person pronoun?

Consider now the formulation in (II). This corresponds of course with the other familiar way of expressing the insight that the first-personal subject is not referential. It is Lewis’ influential proposal according to which *de se* thoughts are linguistically expressed as properties that are self-ascribed by subjects. Applied to sentences such as (1), this insight amounts to claiming that the subject in (1) simply conveys the instruction that the property “ $\lambda x. x$  has a toothache” is self-ascribed by the individual who utters the sentence. This also involves giving up the Kaplanian view that first-personal pronouns are referential, though one can easily imagine ways to avoid this consequence (see for instance Wechsler 2010). Yet, even leaving this issue aside, does self-ascription lead to the correct semantics for (1)? The answer obviously depends on the semantics we assign to self-ascription. More particularly, if we interpret self-ascription in the sense that the subject ends up having the self-ascribed property, this cannot be the correct result, since the whole point about the IEM reading of (1) was that the subject is not an object to which we ascribe the relevant attribute. However, if we interpret self-ascription in the sense that the self-ascribing subject is interpreted as having epistemic access to the self-ascribed property, this may yield the correct empirical result, since the entity who has epistemic access to the relevant attribute need not be the object to which we ascribe the attribute, saving the insight that there is in fact no such object.

With this in mind, suppose we re-interpret Recanati’s proposal in (I), according to which the pronoun in (1) introduces the subject with respect to which the content of the thought is interpreted, as the claim that the subject expresses the entity that has epistemic access to the experience and that can thus *exclusively* determine whether (1), as a direct experience report, is true or false. This could be formalized in a Kaplanian semantics as follows. For the proper interpretation of direct experience reports, the Kaplanian context  $c$  should be enriched with an extra parameter, besides the usual ones, that is “the entity that has access to the experience in  $c$ ”. On

rather obvious metaphysical grounds, this entity should be identified with another parameter of  $c$  (the speaker-in- $c$ ). Namely, given the private nature of experiences, the entity who is faithfully reporting an experience is by definition the sole entity that is allowed epistemic access to the experience. For (1), in a context where the speaker-in- $c$  is Bill, this eventually provides the semantic content “Bill has a toothache”. Now, this is not the correct empirical result since, once again, we do not want the subject of (1) to be the object to which the attribute is ascribed.

From the discussion above, we can draw two consequences, one positive and one negative. The positive consequence is that what is really crucial is modeling the relation between the referent of “I” and the property  $F$  in IEM sentences like (1) as a relation of epistemic access: experiences are private objects, and a direct experience report in  $c$  is bound to express the fact that the speaker in  $c$  is the entity that has epistemic access to the experience. The negative consequence is that adding an extra parameter to the fixed parameters of evaluation in  $c$  won’t do. It is certainly correct to fix the referent of “I” in (1) as the entity that has access to the experience; it is also correct to identify this object as the speaker in  $c$ ; what is not correct, however, is discharging accessibility on the ‘character’ of “I”: if the description ‘*is the entity who has access to the experience*’ is simply the way we fix the reference of “I” in (1), with no consequences for the semantic content of (1), the final result will still consist in turning the subject into the object to which the property is ascribed, exactly what we want to avoid for (1).

The question that now arises is thus the following: How can we proceed in order to make the interpretation of IEM-sentences such as (1) compatible with a Kaplanian interpretation of “I” in (1)? What we have established so far is that a IEM-sentence of the form “I am  $F$ ” is roughly interpreted, relatively to a Kaplanian context  $c$  as in (10):

(10) The speaker in  $c$  has epistemic access to the experience expressed by  $F$  in  $c$

How can the interpretation in (10) be derived compositionally? Here are the basic ingredients of a possible answer:

- (i)  $F$ , as an experience predicate expressing a phenomenal property, cannot be meaningfully ascribed to any object  $a$ , unless ascription is interpreted in terms of epistemic accessibility:  $a$  has access to  $F$ ;
- (ii)  $a$  cannot be anything else but the entity that has access to  $F$ ;
- (iii) Faithfully reporting  $F$  in language (or in thought) entails identifying the speaker (or the thinker) in the event of reporting  $F$  as the (sole) entity that has access to  $F$ .

From these three premises, it follows that in (1), conceived of as a faithful experience report, the subject cannot be anything else than the entity that has access to the experience of having a toothache; and this is fine, since “I” refers to the speaker in  $c$  in a Kaplanian setting, hence, given (iii) above, to the entity that has access to the experience.

This means that, when  $F$  is an experience predicate, a sentence of the form “ $a$  is  $F$ ” is necessarily interpreted by ‘coercing’  $F$  into  $F' = “\_ has access to F”$ . The rest

follows from a Kaplanian semantics for essential indexicals, under the metaphysical guarantee that the entity that has access to an experience cannot be different from the speaker (or the thinker) reporting the experience.

It also follows that the sentence  $S' =$  “Bill has a toothache” is semantically undefined as a *direct* experience report, since Bill should be the speaker in the context of utterance of  $S'$  in order to be the entity that has access to the experience, whereas Bill does not qualify as the speaker in  $S'$  under standard circumstances. Clearly,  $S'$  must be an *indirect* experience report.

What is an indirect experience report (see Capone 2016 for a broad interdisciplinary assessment of the notion of ‘indirect reporting’)? Quite plausibly, the indirect report of an experience consists in the report of the physical/behavioral manifestations of an experience, that is, in the report of an event that physically or behaviorally manifests the occurrence of the experience. The agent in this event (whereby the appropriate behavior is manifested) is typically individuated as the entity who has access to the experience. In this case, the experience predicate ‘*having a toothache*’ is coerced into its physical correlate  $G$ . For  $S' =$  “*Bill has a toothache*”, this means that we are actually reporting the fact that Bill “typically behaves as someone who has private access to the experience of having a toothache”.

There is a second possibility. An indirect experience report  $S'$  may also be faithfully uttered in a context  $c$  in which it is inferred from a sentence  $S (=$  “I have a toothache”), as uttered in a context  $c'$  whereby Bill is the speaker in  $c'$ . In this case, the experience predicate “having a toothache” need not be coerced into its physical correlate  $G$ . It can be assigned the same meaning as in direct experience reports, in terms of accessibility to the relevant phenomenal properties. This is so because  $S'$  is a “derived” experience report: it can only be justified by referring to a primitive occurrence of a sentence of the form “I have a toothache”, faithfully uttered in a context where Bill qualifies as the speaker.

Given the framework established above, the IEM interpretation of (1) can be easily proved *per absurdum*. In a nutshell, suppose that the object that has access to the experience  $F$  of having a toothache is someone distinct from the speaker-in- $c$ . (1) would then be true in a situation in which the entity who has access to the experience is not the speaker-in- $c$ . But  $S$  is semantically undefined in such a situation, by definition (QED).

As we will see below in more detail, this framework has the additional advantage of allowing a distinction between ‘metaphysical IEM’ and ‘epistemic IEM’, which provides the key for an appropriate understanding of the divide between *implicit* and *explicit de se*, in Recanati’s sense. This divide is real. Consider a sentence such as (11):

(11) It’s me who has a toothache, not Bill

On rather obvious grounds, (11) is not IEM under a behavioral interpretation of the predicate. Suppose for instance that I utter (11) while viewing some recorded scenes of many years ago, featuring me and Bill, and that I draw the conclusion, based on what I see in these images, that (11) is the case. Now, it is quite possible that not me but someone else (possibly Bill himself) was the person having a toothache.

Arguably, (11) is not IEM even when it is based on an IEM judgment. This is the case in which (11) expresses the contrastive judgment that the person who has access to the relevant experience is me, not Bill, and at the same time the relevant experience is directly reported by the person who has access to the experience (i.e. by me). Here is how we derive the conclusion that (11) is not IEM in these circumstances. In uttering (11), one cannot possibly be wrong about the fact that it is the speaker in *c*, as the entity who has access to the experience, who has a toothache, and not anyone else. In this sense, IEM is metaphysically guaranteed. However, assuming I uttered (11) faithfully, I have also established that the identity *speaker-in-c* = *Bill* does not hold, and I may certainly be wrong about that, i.e. it may well be the case that the person that I have identified as the speaker-in-*c* is not a person different from Bill but is Bill himself (i.e. I am Bill, unbeknownst to me). More generally, though the speaker-in-*c* is by definition the entity who has access to the reported experience, an error is always possible concerning my epistemic access to the identity of the speaker-in-*c*. From this epistemic perspective, (11) has not the status of an IEM sentence. This reasoning is reminiscent of Kripke's treatment of judgments that are *necessary* but not *a priori* (Kripke 1980). The identity *Hesperus* = *Phosphorus* is metaphysically guaranteed (as is the identity *speaker-in-c* = *entity who has access to the experience*), but I may mistakenly identify the object to which I rigidly refer by using the name "Hesperus" as something else than the planet Venus. Similarly, in a context in which the speaker-in-*c* is Bill, I may mistakenly identify the speaker-in-*c* as someone else than Bill. The whole point revolves around the fact that contrastive judgments such as (11) involve the establishment of the identity between the speaker-in-*c* and a specific particular. Here, misidentification is of course possible. Conversely, when a speaker utters pure direct reports of the form of (1) he simply intends (i) that it is toothaching; and (ii) that the speaker is the entity that is accessing the experience whose content is that 'it is toothaching'. Here, nothing requires that the speaker-in-*c* be identified with a specific particular. At this level, misidentification is utterly irrelevant.

## 4 On the Grammatical Encoding of Indirect Experience Reports

In Japanese, predicates of direct perception are subject to the so-called *person constraint*, that is, they are only admitted with the first person, in declarative sentences, and the second person, in interrogative ones (Kuroda 1973, Tenny 2006). In layman's words, one can utter "I see a canary" to report his/her own visual experience, but cannot utter "John sees a canary" to report John's visual experience. The 'person constraint' can be overcome by *evidentiality markers*. "John sees a canary" becomes an acceptable linguistic utterance if a dedicated evidential marker is added to the sentence. We take evidentiality markers as grammatical markers that indicate something about the speaker's source of information. This definition

can be enlarged so to encompass the speaker's epistemological stance, crucially including, from our perspective, the difference between perceptually-based external event reports and 'private' experience reports. In fact, we think that the explanation for this linguistic phenomenon has deep cognitive roots: Japanese simply fulfils the prediction that direct experience reports cannot be compatible (by definition) with third person experiencers. In our terms, if experiences (see below) "wear the experiencer on their sleeve" – that is, experiences and experiencers cannot be representationally distinguished – a first-person perspective is unavoidable for direct experience reports. In Japanese, the use of a first person pronoun in these sentences is simply the expression of the metaphysically enforced identity between the speaker and the entity who has *direct* access to the experience. On the same grounds, the reason why the appropriate evidential marker makes third-personal sentences acceptable is that it turns *direct* experience reports into *indirect* experience reports, in the sense discussed in the preceding section. More particularly, we have seen that indirect experience reports consist either in the report of the physical/behavioral manifestation of an experience or in the result of an inference from a first-personal sentence. We have proposed that in the first case the experience predicate is coerced into its physical correlate, whereas in the second case the experience predicate is used 'derivatively', that is, it is legitimate only insofar as it is inferred from the occurrence of a first-personal sentence in which the predicate is primitively used as expressing the relevant phenomenal property.

Now, in Japanese there are two morphosyntactic conditions under which the person constraint on subjects of predicates of direct experience is lifted, which involve either clausal or verbal morphology. First, in Tenny's words, "certain kinds of clausal or verbal morphology such as *ni tigainai*, and *no* in *noda*, *node*, and *noni* remove the person restrictions on the subject" (Tenny 2006:249). For instance, Kuroda 1973 (quoted in Tenny 2006: 250) describes the function of *no da* in the following way: "...*no da* somehow serves as a marker to indicate that some "second order" assertion, so to speak, is made with respect to the proposition expressed by the sentence to which *no da* is attached". Clearly, this description is compatible with our description of indirect experience reports as derivative, i.e. inferred, from a first-personal sentence in which the relevant experience predicate is legitimately used as expressing a directly reported phenomenal property. Second, again in Tenny's words: "The *-garu* evidential marker (discussed by Kuroda (1973), Kuno (1973), and Aoki (1986)) is part of the verbal morphological system which adds the sense of '*appearing to be* \_\_\_'. This form appears on the verb stem, followed by the inflectional morphology. Kuno (1973) describes its meaning as: 'to show a sign of, to behave like *-ing*'" (Tenny 2006:84). When this morpheme is appended to the stem of a predicate of direct experience, the person constraint is lifted" (Tenny 2006:251). Clearly, this description is compatible with our description of indirect experience reports as reports of the physical/behavioral manifestation of an experience, in which the experience predicate, which originally expresses the relevant phenomenal property, is coerced into its physical/behavioral correlate. Though this issue would deserve a fully-fledged discussion, these observations strongly suggest that the person constraint in Japanese represents the morphosyntactic manifestation

of the principled dichotomy between direct and indirect experience reports, thus confirming the epistemological priority of first-personal sentences for the expression of phenomenal properties.

## 5 Perception, Proprioception and Experience

Consider now the case of sentences of the sort of (12):

(12) “My legs are crossed”.

Recanati (2012) discusses the case where someone sees in a mirror that her legs are crossed. In this situation, the sentence “I see that my legs are crossed” is IEM with respect to the first occurrence of the first-person pronoun, though not with respect to the second (Recanati 2012:187):

The initial occurrence of ‘I’ corresponds to a first-personal feature of the experience that is not reflected in its content (since the seer is not part of what is seen). The second occurrence of the first person (‘my’) corresponds to an aspect of the content of the experience: the person whose legs are seen in the mirror to be crossed. Now the judgment is immune to error through misidentification with respect to the first occurrence of the first person, which is a use of ‘I’ ‘as subject’; but the same judgment is vulnerable to misidentification errors with respect to the second occurrence of the first person (‘my legs’): for the subject may be wrong in identifying herself as the person whose legs are seen.

In a nutshell, the first occurrence of the first-person pronoun does not require the subject to be represented, whereas the second occurrence of the pronoun clearly involves a representational content (what one sees is someone’s legs, though one may well be mistaken about whose legs they are).

Crucially, however, this is not the whole story. Interestingly, Recanati also contends that (12) is IEM when the subject is identified through proprioception (Recanati 2012:190):

Now a first-person judgment based on proprioceptive evidence and therefore immune to error through misidentification can be explicit precisely because such a contrast is relevant: ‘My legs are crossed (in contrast to my neighbour’s)’. This can be said, not because one sees one’s legs in the mirror, but because one feels one’s legs and knows, on the basis of pure proprioceptive evidence, that they are crossed. Here no error of identification can arise: being proprioceptive, my evidence can only concern myself. Still, I intend to contrast the position of my legs (known in this immune manner) with the position of other people’s legs; and that contrast justifies making the subject explicit. It would be implausible to maintain that the content of such a (contrastive) judgment is ‘selfless’.

At least two issues are at stake here:

- (i) Is proprioception always immune to IEM?
- (ii) Are uses of the first-person pronoun in a proprioceptive mood immune to error also in settings (as when I contrast my legs, perceived as such in the proprioceptive mood, with my neighbor’s legs)?

Concerning point (i), De Vignemont (2012) discusses cases in which proprioception apparently fails. The especially relevant case (ignoring the “false negatives” reported in cases of *somatoparephrenia*) are the “false positives” reported in the classical *Rubber Hand Illusion* (RHI) cases, where an experimenter strokes a rubber hand presented in front of the subject, while the subject’s own hand stays hidden behind a screen. In such cases, the subject reports that it feels like the rubber hand is his own hand. De Vignemont argues that the source of this mistake lies in the perceptual conditions, whereby visual information is invariantly combined with tactile experience. Since visual perception is committed to exteroceptive information, it is this “contamination” of the proprioceptive mood that arguably explains RHI. A tougher case is somatic RHI, whereby vision is left out (subjects are blindfolded) and participants report the feeling that they are touching their own hand, whereas they are actually stroking the rubber hand. However, De Vignemont argues that tactile perception is also dual in nature (De Vignemont 2012:233):

It carries both exteroceptive information about the external world (e.g. the ball touching my hand) and interoceptive information about the body (e.g. the pressure on my flesh) . . . Let us imagine that my left hand is anaesthetised, whereas my right hand is normal. While I am in the dark, my right hand feels a hand. Whose hand is that? I may be mistaken and judge that it is my own left anaesthetised hand, although it is someone else’s hand. Nothing in my exteroceptive tactile perception guarantees that I am not mistaken about whose hand I am touching. On the contrary, I cannot be wrong about whose hand is feeling the anaesthetised hand. Hence, only interoceptive tactile information guarantees bodily IEM.

What should we conclude from these observations? Well, one should also consider that while visual perception may be held responsible for the absence of IEM in the classical cases of RHI, visual perception is itself IEM under certain perceptual conditions (De Vignemont 2012:241):

One may be able to see one’s nose, if one closes one eye for instance. I cannot doubt that this is my own nose when I see my nose from this specific angle. Consequently, the visual experience that represents the nose with this visuo-spatial perspective guarantees judgments about one’s nose that are immune to error through misidentification.

This is thus what really matters: as expected on empirical grounds, there are conditions in which perception is infallible, in the sense that it necessarily yields, in Burge’s (2010) words, a perceptual state that specifies *particulars* as being in the correct environmental conditions (Burge 2010:383):

In vision science, the idea is that when specific environmental conditions are realized and light from these conditions reaches relevant receptors in standard ways where these ways are specifiable mainly by laws of optics and where certain specifiable proprioceptive conditions are met, the formation laws will, barring various kinds of interference, yield a perceptual state that specifies particulars as being in those environmental conditions.

In normal circumstances, perception is not immune to error (Burge 2010:386–7):

The kinds of perceptual states that are formed depend causally, in individual cases, on the type of registration of proximal stimulation, not on the actual distal objects of perception. [. . .] The account of veridical perception and perceptual illusion (including perceptual referential illusion) includes, not only the account of the formation of perceptual states from registrations of proximal stimulation, but an account of the further relations between distal

causes and proximal causes. [...] Seeing is a psychological state that, in each instance, depends for being a seeing on entities and causal relations beyond the psychology of the individual. [...] In cases of referential failure in perception (and indeed other sorts of illusion), the proximal stimulation and proximal-stimulation registration are not causally connected in appropriate ways to environmental particulars.

It follows that if one enforces empirical perceptual conditions in virtue of which “the proximal stimulation and proximal-stimulation registration cannot fail from being causally connected in appropriate ways to environmental particulars”, perception will be immune to error. What we should realize, however, is that this kind of *de facto* IEM has nothing to do with the Wittgenstein/Anscombe *logical* kind of IEM. Simplifying a bit, we can say that *de facto* IEM is rooted in the empirical possibility that perceptual conditions be optimal, in the sense that they cannot fail to represent some specific distal environmental objects of perception as correctly endowed with certain properties. In certain environmental conditions, I cannot fail to correctly perceive a nose as *my own nose*. If De Vignemont is right, proprioception, at least when entirely devoid of exteroceptive elements, is actually immune to error, in the sense clarified above.

Still, this is *de facto* IEM, not *logical* IEM. If the formation laws of perceptual psychology, which yield perceptual states where particulars are specified as being in certain environmental conditions, were different from what they are, a possibility of error would plausibly arise in the environmental conditions in which error is now factually excluded. *Logical IEM* is entirely another matter: it resides in the irrelevance of formation laws as the basis of correct perceptual representations, since the relevant judgment is not grounded in perception at all. The object that is IEM is simply not represented as part of a perceptual state, but it is given as inherent to the experience.

The answer we provided to question (i) above is thus that Recanati is correct in claiming that proprioception is IEM, but he is *not* correct in underestimating the deep difference between *de facto* IEM (like the judgments grounded in proprioception) and *logical* IEM.

In fact, the finding that proprioception gives rise to *de facto* IEM has not the consequences that Recanati claims it has with respect to the claim that explicit *de se* may be IEM. Explicit *de se* involves, by definition, the representation of the subject as part of the content. Consider first the case where one contrasts the judgment “my legs are crossed” (based on proprioception) with the judgment that his neighbor’s legs are not crossed. Though it is certainly true that one cannot be mistaken about the legs’ ownership in these conditions, it is also evident that this simply amounts to *perceptual* infallibility, not to *logical* infallibility.

In fact, consider now another case that Recanati discusses in some detail, the contrast between (13) and (14):

- (13) It’s raining                      (implicit *de se*)
- (14) It’s raining here/now      (explicit *de se*)

According to Recanati (2012:192):

A subject who, on the basis of perception, forms the thought ‘It is raining’ is automatically entitled to judge ‘It is raining here’, without any extra evidence being required on his or her part (The subject only needs to have the conceptual resources required to entertain a thought explicitly about his or her current location).

This statement is wrong on two independent grounds. First, a perceptual judgment like (13) is never IEM (not even *de facto*, since it obviously contains exteroceptive elements in it). It is certainly equivalent to sentences like (14), which are also, clearly, not IEM. Suppose I see some drops of water on my raincoat while I’m walking in the open air, and that I form the perceptual judgment “It’s raining now”, whereas in fact it rained until some minutes ago (when I was fully merged in my thoughts and I did not notice) and has stopped raining now. The source of Recanati’s claim – we submit – is the confusion between (13) as a perceptual report and (13) as a direct experience report. In the latter reading, the sentence has roughly the meaning of (15):

(15) It feels like it’s raining

According to the experiential reading, the speaker (as the entity who accesses the reported experience) need not conceptualize the space he is in when he utters the sentence. Suppose I am in Lyon, unbeknownst to me, when I utter (15). Still, (15) is true if, by uttering (15), I faithfully reported the relevant experience. If I am now asked “Are you in Lyon or in Paris?”, I wouldn’t probably be able to answer, since I actually do not know where I am. Similarly, a contrastive judgment of the sort “It’s raining *here*, not in *Paris*” would completely exceed my epistemic capacities, since I still have to conceptualize the place I am in, though I’m faithfully reporting the experience I’m having. These considerations show that one of these two conditions necessarily holds:

- (i) (13) is a perceptual judgment and as such it is equivalent to (14); but both judgments are not IEM;
- (ii) (13) is a direct experience report, roughly equivalent to (15); as such it is IEM but it *not* equivalent to (14).

It follows that the cases where “no extra evidence” is required for shifting from one judgment to the other are perceptual reports that are not IEM, whereas the cases involving IEM are those where shifting from one judgment to the other is far from innocent or automatic, since it in fact requires entirely different epistemic grounds.

Consider now the case of contrastive judgments involving the first-person pronoun, as in (16):

(16) *I* have a toothache, not *Bill*

As emphasized above, though I have an a priori knowledge of the fact that the entity who has access to the experience is the speaker in the context of utterance, I may be wrong in concluding that the identity *the speaker-in-c = Bill* does not hold (if I am an amnesiac of the classical sort, for instance). In other words, (16) is not

a case of IEM, at least *epistemically*: Given (16), it may certainly be the case that someone has a toothache, and that the person having a toothache is different from the person that I identified as having a toothache.

We conclude that Recanati is mistaken in thinking that *logical* IEM extends to the cases where the subject of an experience is representationally expressed (that is, it is part of the semantic content), though he is entirely correct in proposing that perceptual judgments can be *de facto* IEM. The point is that perceptual judgments cannot lead to logical IEM, under no conditions. More particularly, all cases where the subject is made part of the expressed semantic content (like the contrastive judgments discussed by Recanati) are not cases of IEM.

## 6 On the Sources of Lack of Reference

Recanati (2012) further contends that there is no contrast between experiential judgments of the sort of (17) and reflective judgments of the sort of (18):

(17) I am standing

(18) I was born in Paris

If (17) were simply athetic judgment devoid of a subject (and not a categorical judgment), one would not understand the validity of the inferential schema in (19), where *F* stands for the predicate ‘to be standing’ and *G* stands for the predicate ‘born in Paris’ (Recanati 2012: 191):

(19) a is F

a is G

$\exists x (x \text{ is } F \ \& \ x \text{ is } G)$

The whole point seems to be about the possibility that (17) become categorical (in the sense that it explicitly concerns an object that is part of the representation that constitutes the semantic content of (17)) without losing its IEM characterization (Recanati 2012:191):

The content of the judgment may be more complex and may explicitly represent the subject of experience, without the judgment’s losing its immunity. Or so I will argue.

Recanati is fully aware of the fact that the shift from (17) as a pure experiential report to (17) as involving the categorical reference to a “self” cannot be entirely innocent, of course. What he deems is needed is *Reflection* (Recanati 2012: 193):

The only difference between the implicit *de se* thought and its explicit counterpart is that the latter proceeds through Reflection and requires, on the part of the thinker, the conceptual ability to self-refer, i.e. the possession of a concept of “self”.

The idea is apparently very simple: The Experiencer that is introduced by experience reports of the sort of (17) comes, through Reflection, to represent itself as a subject in the world (Recanati 2012: 195):

Through Reflection the subject can make his own involvement explicit and represent himself as the bearer of the property: "I am standing".

This passage fromthetic to categorical can be explicitly represented as follows (Recanati 2012: 195):

- (A) Standing (primary judgment, implicitly *de se*)
- (B) I am standing (from A', by Reflection)
- (C) I am François Recanati (additional premise)
- (D) F. Recanati is standing (from B' and C', through substitution of identicals)

Now, whereas we think that this certainly constitutes a correct characterization of the relevant epistemic process, the point really under discussion is whether this inferential chain supports the view that *Reflection* is as innocent as Recanati would like it to be. The crucial step is the shift from (B) to (C), the step in which the Experiencer of the experience represents itself as an object. What does this step involve exactly? To see this in some detail, consider the following three sentences:

- (20) I am standing
- (21) I am hungry
- (22) I am hungry, not Anne

According to the analysis offered in the preceding section, someone who utters (20) and (21) as direct experience reports is expressing a semantic content according to which:

- (i) "it feels like standing" and "it feels like being hungry"; and
- (ii) the speaker of (20) and (21) in the two contexts of utterance is identified with the entity that has access to the relevant experience.

In order to be able to semantically express (ii), the utterer of (20) and (21) need only know:

- (a) what the character of "I" is; and
- (b) the semantic rule according to which the speaker-in-*c* is the entity that accesses the experience (let's call it the '*bearer of the experience*').

Crucially (see section 3), there is no need for the utterer of (20) and (21) to know who the speaker-in-*c* (hence the bearer of the experience) actually is. So, suppose that the speaker of (20) in *c* is Bill and that the speaker of (21) in *c'* is also Bill. When Bill utters (20) and (21), whereas it is part of the semantic content expressed by (20) and (21) that the bearer of the two reported experiences is the very same object (Bill), there is no need for Bill to know that the speaker/bearer of the experience is Bill. More generally, there is no need for Bill to know that the speaker/bearer of the experience is subsumed under a certain concept (that she is a human being, for instance).

Consider now (22) instead. In order for Bill to be able to deny the identity between the speaker/bearer of the experience and Anne, Bill must have been able, by definition, to conceive of the possibility that Anne, and not Bill, was the bearer of the experience, that is, Bill must have been able to “conceptualize” the referent of the description “speaker-in-*c*” as an entity of the same sort as Anne.

At this stage, two points have to be made, both essential to assess the rightness of Recanati’s contention concerning the *epistemic innocence* of the inferential chain above.

First of all, coming to conceptualize the referent of “speaker in *c*”/“bearer of the reported experience” as an entity of a certain kind is neither an innocent process epistemically nor a process we know much about presently. For instance, suppose that Bill utters (20) and (21) in quick succession. What is felt is plausibly a sense of continuity between the two experiences, probably linked to the sense of agency and ownership that is part and parcel of an experience (Gallagher 2000). Is some degree of continuity in this wired-in sense of agency and ownership (yielding a ‘minimal self’, in Gallagher’s sense) sufficient to produce a notion of “self” as an independent object, whose “objective” properties enable us to compare it with other objects in the world, and finally enable us to produce contrastive judgments like (22)? And how many “continuous” experiences of this kind are minimally required to make this shift from the concept of “minimal self” to the concept of a “self” as an object in the world possible?

These are difficult questions and, even more interestingly, these are, at least in principle, *empirical* questions. So, though we may agree with Recanati (2012: 192) to the effect that,

Reflection is a transition which involves making explicit (in the content of the judgment) something that was not part of the content but was nevertheless implicitly contributed through the mode of the grounding experience

we cannot agree on the “epistemic innocence” of this whole process on the part of the speaker.

Moreover, and this is quite relevant for a precise assessment of the relation between implicit and explicit *de se*, IEM is *not* preserved in the passage from (B) to (C) above. At the moment one (be it the hearer or the speaker) establishes that the speaker-in-*c* (or, equivalently, the bearer of the reported experience) is a specific object *a* (say, Bill), or another object distinct from *a* (say, Anne), there is no immunity to error. Or, to put it more formally, at the moment the semantic value of the function ‘\_ is the speaker in *c*’ (i.e. the *character* of “I”) is effectively calculated, this calculus cannot of course be immune to error. On the side of the speaker, the calculation is based on some complex perceptual/cognitive processes at the interface between perception/cognition and experience, and there is of course no more guarantee that this process is immune to error than there is to the effect that our perceptual/cognitive processes are immune to error, quite generally.

From an epistemological perspective, Recanati’s claim that the IEM property rooted in implicit *de se* is simply inherited by explicit *de se* is, thus, wrong, both empirically and conceptually. Empirically, when it comes to assessing the

truth-value of the identity *speaker-in-c = a*, mistakes are possible, as generally expected. What is epistemically guaranteed is the identity *speaker-in-c = bearer-of-the-experience*, and that's all. Thinking that the process which establishes *a* as the referent of the description 'speaker-in-c' is IEM, based on the observation that the speaker-in-c is already implicitly given as *a* in the relevant experience, constitutes a serious mistake: It exaggerates the *epistemic* consequences of the *semantic* fact that the entity *a* is "implicitly" given as the bearer of the experience already at the very moment the sentence is uttered. In a sense, it is like claiming that the identity "Hesperus = Phosphorus" is epistemically trivial, given that the identity is metaphysically established already at the moment at which the sentence is uttered.

Conceptually, Recanati's mistake consists in the thought that all there is to IEM, in (1), is the metaphysical guarantee for the identity between the utterer of a direct experience report and the entity that bears the experience. Since the entity that bears the experience is immediately/unreflectively given at the moment the experience manifests itself, and since this entity is necessarily given as *a* at that very moment, nothing else is required – *or so the thought goes* – than an elementary act of reflection in order to explicitly reveal the identity of *a*.

This thought is seriously flawed. It wrongly presupposes that phenomenal properties are simply predicated of the bearer of the experience, interpreted as the entity *a* that has access to the experience. Actually, IEM is not the process by means of which the bearer of the experience is epistemically identified as the entity *a*, IEM is rather the process by means of which no question of identity arises, on logical grounds, for *the Experiencer of the reported experience*, since this Experiencer is part of the meaning of the phenomenal property describing the experience. This Experiencer is in fact related to the notion of "minimal self", in Gallagher's (2000) sense, a notion that helps define the meaning of every experience predicate, while this Experiencer is *never* part of the representational/semantic content of the sentence as something distinct from the content proper to the phenomenal predicate. In other words, the Experiencer that is unreflectively given in the experience – the minimal self – has to be kept carefully apart from *the bearer of the experience*, which is identified as the speaker in *c*, as a joint effect of the semantics of the first-person combined with the semantics of experience reports.

How should we then conceive of the semantics associated with experience predicates that express phenomenal properties? Though we think it is not appropriate for us to address this issue in full detail here, we would like to hint at a possible line of analysis that seems very promising to us. In the ontology associated with standard model-theoretic semantics, objects are uniquely instantiated. Properties are not. When I say that *this object* is red and that *that object* is red, I speak in fact of the very same property. However, a property becomes unique whenever it is uniquely instantiated in some object or another, giving rise to what is commonly referred to as a *trope* (the beauty of Bill, the redness of this apple, etc.). What one might propose is that phenomenal properties are by definition uniquely instantiated: They wear the object with which they combine on their sleeve, so to speak. From this perspective, the reason why an experience cannot be referentially distinguished from the Experiencer is that phenomenal properties are in a sense *inherent tropes*, that is, properties that come up as *uniquely instantiated* in virtue of their *inherent constitution*.

Be it as it may, what should be firmly established is that whatever is part of the representational/semantic content is not subject to logical IEM. In fact, what is subject to logical IEM is the Experiencer that comes along with phenomenal properties, and the reason for that is that this Experiencer is not part of the representational/semantic content as something distinct from the representational/semantic content of the phenomenal predicate.

## 7 Conclusions

We conclude that Wittgenstein was right in claiming that the *experiencer* in an experience report of the sort of “I am in pain” does not refer. It is not correct, however, to identify this experiencer with the referent of the first-person pronoun. The first-person pronoun in “I am in pain” refers to the entity that has epistemic access to the experience. In order to do so, it exploits the usual Kaplanian semantics for essential indexicals, enriched with the metaphysically enforced identity *speaker-in-c = bearer-of-the-experience*. Establishing the reference of the first-person pronoun in “I am in pain” as, say, Bill, is a process subject to error through misidentification. The whole point reduces to the fact that the bearer of the experience, as referred to by the first-personal pronoun, is crucially *not* the experiencer of the experience, if we define this experiencer as the sense of minimal agency and ownership that is proper to phenomenal properties when they manifest themselves. There is no issue of *independent* reference for this experiencer, since there is no phenomenal property that does not incorporate, as part of its meaning, this experiencer.

In this way, we can establish that Wittgenstein’s point about the lack of reference in (1) was correct. It should not be interpreted, however, as the lack of reference of the first-person pronoun, but as a lack of reference *inherent to the semantics of phenomenal predicates*. A conclusion that clearly squares with the observations made above on the irreducible difference between direct experience reports and perceptually/cognitively based external event reports. Once this irreducible difference is taken into serious consideration, much of the present philosophical confusions around the nature of IEM and the distinction between *de facto* and *de iure*/logical IEM can be effectively avoided.

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