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The Myth of Nonconceptual Self-Consciousness

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Abstract

This paper is a defense of the old orthodox view that self-consciousness requires self-concepts. We will try to persuade the reader that intelligent beings lacking self-concepts are not self-conscious. The alleged cases of primitive nonconceptual self-consciousness are better understood as ancestors in the developmental prehistory of genuine self-consciousness. We distinguish three levels of subject-involvement. In the first, the representational content of experiences is subject-free and the being is merely concerned rather self-referred by its own experiences. We call this view self-concernment without self-representation. In the second level, the being is self-aware in the sense that it is the object of its own attention. The key feature of this level is what psychologists call "objectivation." Self-awareness is not genuine self-consciousness, however, in the sense of being conscious of oneself as the subject of representations. We therefore call this level self-awareness without self-consciousness. The emerging picture is this: selves are not just the subjects of representations. Their metaphysical nature lies in their capacity to represent themselves as the subjects of their own representations.

Keywords: Self-consciousness, Nonconceptualism, Nonconceptual *de se* contents

1. Introduction

The idea that self-consciousness depends on self-concepts was until recently the orthodoxy. The best example is found in Baker's paper on the matter (1998). She has argued that all sentient beings are *subjects* of experience in the sense that they all experience the world from their own egocentric perspectives. In doing so, they show themselves to be in possession of what Baker calls weak first-person phenomena (1998, p. 60). However, merely being the subject of experiences is not the same as being conscious of oneself *as the subject* of those experiences. Self-consciousness, or what Baker calls strong first-person phenomena, requires the further ability to think of oneself *as* oneself, that is, thinking of oneself *as a subject possessing a first-person viewpoint*. This ability is both a necessary and a sufficient condition

for self-consciousness (p. 60). On this understanding, genuine self-consciousness is something that only emerges in the course of a long developmental process and crucially depends upon the acquisition of a self-concept.

1) This orthodoxy has been challenged recently (Bermúdez, 1998; Gallagher, 2000a; Zahavi, 2006). It has been claimed that empirical findings from developmental psychology, phenomenological analyses of embodiment, and studies of pathological self-experience point unequivocally to the existence of primitive forms of self-consciousness that do not require the ability to conceive of oneself as oneself by means of a self-concept. It is a widespread conviction today that long before the acquisition of a self-concept, conscious beings are already *aware* of their own selves. According to Gallup (1970), a being is *self-aware* in the relevant sense if it shows the capacity to become the object of its own attention.

2) This paper is a defense of the old orthodox view that self-consciousness requires self-concepts. We will try to persuade the reader that intelligent beings lacking self-concepts are not self-conscious. The alleged cases of primitive nonconceptual self-consciousness are better understood as ancestors in the developmental prehistory of genuine self-consciousness. We distinguish three levels of subject-involvement. In the first, the content of experiences is subject-free and the individual is merely concerned rather self-referred by his/her own experiences. We call this view self-concernment without self-representation. In the second level, the individual is self-aware in the sense that his or her body is the object of his/her own attention. The key feature of this level is what psychologists call "objectivation." Self-awareness is not genuine self-consciousness, however, in the sense of being conscious of oneself as the subject of representations (as the subject of experiences and attitudes). We therefore call this level self-awareness without self-consciousness. The key feature here is the concept of metarepresentation: the representation of a representation qua representation.

3) The emerging picture is this: selves are not just the subjects of representations. Selves are beings that represent themselves as the subjects of experiences and propositional attitudes. Their metaphysical nature lies in their capacity to represent themselves as the subject of their own representations (experiences and thoughts).

2. Self-Concepts as Self-Files

Like a number of others (Perry, 2002; Peacocke, 2012; Recanati, 2012), we find it useful to think of self-concepts as mental files. Mental files are mental particulars created in someone's mind with the function of representing objects by storing information about the object's properties. They are *de re* modes of presentation: even though they are opened in the individual's mind by storing information about the object's properties, they do not present the object as being the entity that satisfies those identifying properties, but rather present it as the object that stands in some relation to the individual herself and, a fortiori, in relation to the file itself. For instance, when a predator sees a prey, a perceptual file opens in the former's mind to represent the prey by storing information about the prey's salient features. Even though the file hosts information about the prey in the form of the prey's salient features (predicates), it does not present the prey as the object that possesses those salient features, but rather as the object that stands in that perceptual relation to the predator and, a fortiori, as the object that stands in a demonstrative relation to the perceptual file itself.

Likewise, a file on itself is opened in the predator's mind with the function of representing itself by storing information about itself in the form of its own properties. As before, however, the file on itself is a *de re* mode of presentation: it presents the predator as the object that stands in some relation to itself (and, a fortiori, as the being that stands in some relation to the file-token) rather than as the object that uniquely satisfies the properties hosted in the file.

It is necessary to distinguish genuine "self-files" from other files that the being may have of itself, however. Mach's report illustrates this difference well. After a trying nighttime railway journey by night, the famous professor boarded a bus just as another man appeared at the other end. Mach recounts the thought he had:

(1) What a shabby pedagogue that man is.

It was only as the man approached that Mach realized that he had been contemplating his own reflection in a large mirror and that it was he who was the shabby pedagogue:

(2) I am a shabby professor!

Thought (2) is the canonical form in direct speech of what is conventionally called a first-person thought. The same thought could also be reported in indirect speech, however, by employing the so-called indirect reflexive pronoun <himself*> as a quasi-indicator (Castañeda, 1966):

(3) Mach thinks himself* to be a shabby professor.

As he gets on the bus, Mach possesses two unconnected files on himself. The first is a perceptual file, deployed in his initial thought (1). The second is the self-file properly speaking, deployed in his *de se* thought (2). In this framework, when Mach realizes that he is the shabby pedagogue, the files become *linked* and the information can freely flow from the perceptual to the genuine self-file.

Since both files refer to Mach *de re,* the first thing we need to consider is how they differ such that Mach can rationally think (1) while denying (2). To start with, because they are based on relations Mach bears to himself, they must present Mach by means of different relations. The mental file Mach employs in (1) is a perceptual file. When he sees his own image reflected in the mirror, a file is opened in Mach's mind to store the salient features: being a pedagogue, being shabby, and so on. By contrast, Mach's self-file in (2) is based on the special relation that each person bears to their own self, namely identity (Perry, 2002; Recanati, 2012). By virtue of being Mach, a self-file is opened in Mach's mind to refer to himself by storing information about himself subserved by internal channels.

Mental files possess a second key feature: token-reflexivity. While the perceptual file Mach has on himself ("that man") presents him as the individual indicated by the relevant token of the perceptual file employed in (1), Mach's self-file presents him as the individual employing the relevant token of the self-file in (2). That accounts for the intentional self-reference in the *de se* thought (2). By presenting himself as the individual indicated by the relevant token of the perceptual file in (1), Mach does not intentionally refer to himself. By contrast, in presenting himself as the individual employing the relevant token of the self-file in (2), Mach intentionally self-refers. Since the self-file is opened in Mach's mind with the function of referring to the producer of its relevant tokens, he could not possibly fail to recognize that, by producing the relevant tokens of that mental type, he intended to refer to himself.

Intentional self-reference is not a guarantee against reference failure, however. According to Wittgenstein's well-known account (1958), in sentences like (2), the speaker may commit two kinds of mistake. First, he may commit a predicative mistake by wrongly thinking that he is dressed like a shabby pedagogue when in fact he is not. Second, with regard to the question of who is dressed like a shabby pedagogue, if someone actually is, he might undergo an identification-mistake: he may wrongly believe that it is he who is the shabby pedagogue when in fact somebody else is.

Let us suppose that after realizing that he is the shabby pedagogue, Mach feels ashamed and thinks something like:

(4) I am ashamed.

In this case, Mach might well undergo the predicative mistake of thinking that what he feels is shame when in fact it is something else he feels. Under the assumption that someone is feeling ashamed, however, he could not possibly think incorrectly that he is the one feeling ashamed when it is in fact someone else who is feeling it. He could not possibly misidentify himself because, in (4), self-reference is not based on any self-identification in the first place. The distinguishing feature of the use of 'I' in (4) is what Shoemaker (1968) calls "immunity to error through misidentification relative to the first-person pronoun" (henceforth IEM).

According to Shoemaker, self-reference without identification occurs only when a person ascribes a psychological predicate to himself. Thus, Mach can be mistaken when he thinks (2) about who actually is dressed like a shabby pedagogue because in that case he self-ascribes a non-psychological predicate. In that case, he is able to misidentify himself as the one who is dressed like a shabby pedagogue. He is impervious to an identification-mistake, however, whenever he self-ascribes a psychological predicate. In such cases, his thought is not only *de se,* but also IEM: he not only intentionally self-refers, but also knows that he is the one who instantiates the given property, if someone actually does instantiate it.

Shoemaker is wrong. Let us suppose that Mach thinks (4) based on the perception of his image in the mirror: after realizing that he is the one dressed like a shabby pedagogue, Mach looks a second time at his own image in the mirror and sees himself blushing. In that case, Mach self-ascribes a psychological predicate, but (4) is certainly not IEM because on this occasion Mach's self-reference requires identification of himself as the individual whose image he is contemplating, and where there is identification, there is always the possibility of misidentification. In contrast, when Mach thinks (4) only on the basis of his feelings, (4) is IEM because in that case, self-reference is not based on identification.

What accounts for the difference between (4) and (2) is the fact that self-files usually obtain information about the individual from two sources. First, self-files host information about the individual by exploiting the relation that every being bears to itself, namely, identity. By exploiting its own identity, Mach's self-file stores information subserved by information channels that do not yield information about anybody else. The way the information is gained determines which object it concerns. Self-reference in (4) is IEM because the same internal source that supplies the information that the property has been instantiated also provides the information that the individual is the one instantiating it (cf. Evans 1982, p. 221).

When the self-file expands, however, it begins to be hospitable to information subserved by

other channels. In Mach's case, he realizes that he is dressed like a shabby pedagogue by contemplating his own image in the mirror. He learns from his parents that he was born in Chirlitz, Moravia; that his father graduated from Charles University in Prague and acted as tutor to the noble Brethon family in Zlín, eastern Moravia; that he was baptized in the Roman Catholic Church in Turas. Given that such information is obtained through third-person channels, from outside, so to speak, whenever he employs a token of his self-file to refer to himself, he is in no better position than anyone else to know whether he was the one who was born in Chirlitz; whether he is the person whose father acted as tutor to the noble Brethon family in Zlín; whether he was baptized in the Roman Catholic Church in Turas, and so on. In fact, his parents and his biographers are in a better position than Mach to know all these facts about him.

Be that as it may, the gathering of all this information in Mach's self-file Mach is not enough to characterize his own self-concept. Self-concepts must conform to the requirement of Evans's Generality Constraint of free recombinability. An individual can be credited with the predicative concept *F* should he be able to entertain thoughts in which *F* is applied to any objects of which he has individual concepts, such as *b*, *c*, *d* (i.e., *a* is *F, b* is *F, c* is *F,* and *d* is *F*). Similarly, an individual can be credited with the concept *a* should he be able to entertain any thoughts in which *a* is freely recombined with any predicative concept, such as *F*, *G,* and *H* in his possession (i.e., *a* is *F, a* is *G, a* is *H*) (Evans, 1982, p. 104). Self-concepts are singular concepts or concepts of particular items, so an individual can only be credited with self-concept *a* if it is capable of recombining it with any predicative concepts in his possession.

In the mental file framework, the file is the mental analogue of a singular term that stands for the object of which something is predicated. Translated into mental file talk, Evans's Generality Constraint says that a subject can only be credited with a mental file (a singular concept) about some object on condition that the file is hospitable to any predicative concept in the subject's possession (see Recanati, 2012, p. 65). Similarly, a subject can only be credited with having a self-file when the file he has on himself is hospitable to any information concerning himself regardless of its source: not only information gained from inside, so to speak, in the first-person way, but also information obtained in the third-person way. So Mach can be credited with a self-file because the file he has on himself hosts not only information subserved by internal channels (proprioception and introspection), but also information obtained from the third-person viewpoint (2012, p. 66).

Recanati's characterization is not entirely satisfactory, however. The crucial point is not whether the file is also hospitable to information gained from outside, via a third-person source. Let us suppose an individual who possesses a perceptual file on a particular tomato in his visual field, storing information about its bulgy shape and about its red color. The content of the individual's visual experience represents the tomato both as red and as bulgy. Intuitively, that perceptual file is not a singular concept if, other things be equal, the individual is unable to *judge* that the tomato is red and bulgy on the basis of his experience, that is, if he is incapable of *predicating* the information contained in the file (regardless of whether it came from inside or from outside) of the object the file stands for. Moreover, since concepts are *reasons,* the individual could not be credited with a singular concept of the

tomato if he is not in a position to appreciate that the same thing that is bulgy is also red from his representation of the tomato as bulgy and his representation of the tomato as red. In light of Generality Constraint, conceptual contents are propositional: a mental file on an object is a singular concept if the individual is able to *predicate* any concepts in its possession of the object represented by the file and is sensitive to the file *as a reason* in inferences from contents concerning the object.

In the particular case of self-files, the gathering of all sorts of information into a single file on oneself is not a sufficient condition for a self-file. Let us suppose that a schizophrenic has a file on himself that is fed with all sorts of information about him. The file is fed not only with information subserved by internal channels (proprioception and introspection), but also with information he learns from outside. Let us suppose further that he does not recognize any piece of information gained from outside as his own. As a matter of fact, he thinks that they were all inserted into his self-file by a malicious agent. Intuitively, when it comes to mind that he was born in such and such a place, as the son of such and such a man and woman, he is not employing a token of his self-file. For one thing, he is not *judging* that he was born in such and such a place, as the son of such and such a man and woman. He is not *predicating* this piece of information of himself. For another thing, on the basis of the thought of being born in such and such a place and the thought of suffering from severe mental pain, he is not in a position to appreciate that he is one and the same individual who is both in pain and who was born in such and such a place.

The key question is how the information concerning the individual is recognized by that individual as his own predicate and fed into his self-file. What transforms the information concerning the individual in a predicative concept of himself is his ability to represent that information as a representation of his own properties or condition. That ability is what Kant calls Transcendental Apperception (B 133), and that representation of a representation as a representation is what Dretske calls metarepresentation (1995, p. 43). By metarepresenting the representation of being in severe pain as representation of my condition, I am in position to *judge* that I am in severe mental pain. Moreover, by metarepresenting the representation of being born in such and such a place as the representation of my birthplace, I am in a position to judge that I was born in such and such a place. By the same token, only by metarepresenting those representations as my representations, am I in a position to appreciate that I am the individual who is in severe pain and who was born in such and such a place from the representation of being in severe pain and from the representation of being born in such and such a place.

The mastering of a self-file thus entails the mastering of the concept of representation. This has two metaphysical consequences. First, intentional or knowing self-reference is what Dretske calls *fact-awareness* (1999) (awareness of facts or propositions) that should not be confused with either *object-awareness* or *property-awareness*. By producing a token from a self-file, an individual becomes conscious of the fact that it is the subject of some mental state rather than aware of itself (object-awareness) or aware of its mental condition (property-awareness). In other words, genuine self-consciousness is the self-attribution of predicates. Second, an individual cannot intentionally self-refer without being able to represent itself as a subject of representations. It is in the nature of intentional self-reference

that an individual metarepresents himself as the subject of representations.

By contrast, in the mental file framework, nonconceptual representations may be sees as proto-files on objects. Let us return to our example. An individual sees a tomato in his visual field and a perceptual file is opened in his mind to refer to that particular tomato, by storing information about its bulgy shape and about its red color. The content of the individual's visual experience represents the tomato both as red and as bulgy. The perceptual file is not a singular concept of the tomato if, other things being equal, the individual is unable to *judge* that that tomato is red and bulgy on the basis of his experience, that is, if he is incapable of *predicating* the information contained in the file of the object the file stands for.

Likewise, a nonconceptual file on himself is a proto-file opened in the individual's mind to refer to himself by storing information concerning him subserved by the internal channels (proprioception and introspection). This mental file is nonconceptual in the sense that the individual is incapable of representing the information hosted in the file as his own predicates. For instance, the individual's proto-file registers the information of feeling ashamed. Since the information is gained from the inside, it can only concern the particular individual who is feeling ashamed. The individual is incapable, however, of self-ascribing the representation as a his own mental predicate, as in thought (4). Moreover, if the individual feels ashamed and feels pain, he is not in position to appreciate that it is he who is both ashamed and in pain.

We do not deny that proto-files like these are at the root of the ontogenesis of self-consciousness. Assuming different forms, such files are the natural ancestors of self-consciousness. What we resolutely reject is the further assumption that they are primitive nonconceptual forms of genuine self-consciousness

3. The Lack of a Clear Motivation

According to the deflationary view of self-consciousness (Bermúdez, 1998, p. 13), the ability to have first-person thoughts is reduced to the ability to employ the first-person pronoun in a way that reflects the subject's mastery of semantics, that is, the mastery of the token-reflexive rule of the first-person pronoun according to which the user of that pronoun knowingly refers to himself by virtue of his knowledge that he is the producer of that relevant token of the pronoun (p. 15). On this view, the subject could not knowingly refer to himself in (2) unless he already knew that he was the producer of the token thought (2). Thus, to refer knowingly to himself in (2) in a way that reflects mastery of semantics, the subject is required to know beforehand that he is the producer of the relevant token of (2):

(5) I am the producer of the token (2).

The obvious problem is that (5) is another *de se* thought that requires explanation in conformity with the subject's mastery of semantics, that is, in conformity with the same token-reflexive rule of the first-person pronoun. We are thus dealing with a circular explanation in the sense that we presuppose further *de se* thoughts to explain the original *de se* thought. In this way, the explanation never starts. Bermúdez's way of defusing this "paradox" is to postulate a primitive, nonconceptual form of self-consciousness that is prior to and independent from conceptual forms of self-consciousness that rest on the mastery of the first-person pronoun.

A self-concept is a rather complex concept whose acquisition depends on the mastering of the

token-reflexive rule of the first-person pronoun. That token-reflexive rule must be seen as a genetic template or recipe for the acquisition of a specific self-concept: one should use the first-person pronoun to think of oneself (Tye & Sainsbury, 2012, p. 144). The token-reflexivity of the self-file is modeled by the token-reflexivity of the first-person pronoun.

Still, to defuse Bermúdez's paradox, we do need to endorse his heterodox claim about the existence of primitive nonconceptual forms of self-consciousness as a condition for the acquisition of a self-concept. All we need is to assume is that before the acquisition of a self-concept, the individual is already self-aware in the sense of being the object of its own attention (Gallup, 1970). It is probable that the individual becomes aware of his own body once he is able to match the visual representation of his own bodily parts with proprioceptive representations of them. Such a coupling provides him with an integrated, complete image of his whole body. Once aware of his own body (object-awareness), the individual can now apply the rule that whoever produces a token of the first-person pronoun manages to self-refer and so becomes able to open a self-file and begin to self-ascribe predicates.

The classical motivation for the postulation of nonconceptual forms of self-consciousness is found in a long philosophical tradition that traces back to Locke and the so-called Theory of Reflection. On this view, self-consciousness requires from the subject the knowledge that he, as the object represented, is identical to himself as the individual performing the relevant act of representation. That requires from the subject the further knowledge that he is the individual performing the relevant act of reflection. Thus, the same problem arises again. Self-consciousness requires of the subject the knowledge that as the entity satisfying the property of being the performer of the relevant act of reflection, he is identical to the subject performing the higher-order act of reflection. Thus, we find ourselves grappling either with a circle or with an infinite regress.

Self-consciousness in (2) requires of the subject the knowledge that it the object he represents as uniquely satisfying the identifying property of being the individual who deserves criticism is identical to himself *qua* the subject thinking (2). If we assume that that piece of knowledge is already given in (2), we become entangled in a vicious circle (Fichte, 1794). On the other hand, if that piece of knowledge takes the form of the higher-order *de se* thought (5), we embark on an infinite regress. Self-consciousness in higher-order *de se* thought (5) requires from Mach the knowledge that the object he represents as uniquely satisfying the identifying property of being the producer of the relevant token of (2) is identical to himself as the subject thinking (5).

This traditional problem is present in contemporary philosophy of mind. For example, even if we accept Kaplan's general view that the first-person pronoun in (2) does not describe the individual as the thinking subject of (2) but instead refers to it, Rosenthal (2004) still claims that the subject becomes conscious of himself to the extent that his thought (2) disposes him to entertain the higher-order thought (5) that identifies himself as the subject that the lower-order-thought (2) is about (p. 167). Rosenthal believes that it is possible to stop the regress by arguing that unaware higher-order thoughts could make lower-order thoughts they are about conscious (p. 167). However, as Zahavi (2006) correctly claims, it is a complete mystery how a non-conscious higher-order thought like (5) could render an equally

non-conscious lower-order thought (2) conscious just by representing it.

Phenomenologists offer a different diagnostic: the theory of reflection is at the root of the problem, by which they mean the idea that to be self-conscious is to represent oneself as the object of one's own intentional act of reflection. They argue that by abandoning that theory we can find a simple solution to the traditional problem: to know that he, *qua* the object that uniquely satisfies the property of being a shabby pedagogue in (2), is identical to himself *qua* the individual thinking (2), Mach does not need to identify himself as the individual that uniquely satisfies the property of being the producer of the relevant token of (2). All he needs is to perform the relevant act of reflection (2) self-consciously, *qua* subject. That is what phenomenologists call the pre-reflexive, intransitive, or adverbial form of self-consciousness.

According to Zahavi (2006), what justifies the attribution of a pre-reflexive form of self-consciousness is the subject's capacity to answer with an explicit *de se* thought whenever asked about what he is doing while undergoing experiences or performing intentional acts (cf. p. 277). Let us call this the phenomenological argument. Thus, if Mach is asked what he is thinking about, he is capable of answering promptly with the *de se* thought (2). The central tenet here is the idea that the subject is always self-consciously experiencing and thinking *qua* subject long before he acquires the conceptual resources to identify himself *qua* the object that uniquely satisfies the property of being the thinker of some thought.

On a closer look, however, the root of the problem is not the theory of reflection (how else could someone be self-conscious if not by reflecting or representing themselves as the subject of their own representations?) but the descriptivist assumption that self-consciousness requires from the subject the knowledge that he, as the object represented by his own intentional act, is identical to himself as the subject performing the act. To solve this problem, we do not need to endorse the extravagant assumption that the subject is *always* self-consciously thinking and experiencing the world, even when he is not reflecting on himself and even if he lacks a self-concept. All we need to assume is that self-concepts are *de re* modes of presentation. The determination of self-reference does not proceed via the satisfaction of any identifying condition, not even the condition of being the producer of the relevant token of the mental file type.

The knowledge of that identity is a consequence of the cognitive architecture of the system. In the mental file framework, a self-file is opened in the subject's mind to refer to himself in virtue of the relation of identity he bears to himself (Perry, 2002). The file hosts information about the subject subserved by the internal channels in the exploitation of that relation of identity. On the basis of this relation of identity and the mastering of the token-reflexive rule of the first-person pronoun, the token-reflexive relation is built between the file as a mental type and its tokens. Thus, knowing the token-reflexive rule of the "I" and being the individual producing the relevant token of that type, the subject already knows that that he is its producer and, a fortiori, that he intentionally self-refers. There is no vicious circle or vicious regress in intentional or knowing self-reference.

The idea of nonconceptual self-representation thus lacks a clear motivation.

4. Self-World Dualism: The Implicit Argument

The major motivation for the new heterodox view is empirical, however. Empirical findings

from developmental psychology, phenomenological analyses of embodiment, and studies of pathological self-experience seem to provide behavioral evidence that points to the existence of an "implicit sense of the self" in subjects lacking the relevant self-concept, that is, that point to the existence of primitive nonconceptual forms of self-consciousness.

The general idea of the most primitive form of self-consciousness emerges here naturally from what developmental psychologists term *self-world dualism,* that is, the idea that infants from birth manifest an implicit sense of themselves through their capacity of differentiating themselves from their environment. This is contrary to what has been assumed by early theorists of child development, e.g., Piaget or Mahler, who claimed that the starting point of children's development is an initial state of "undifferentiation" between the infants and their environment.

Two assumptions are crucial here. First, it is assumed that self-consciousness is essentially a contrastive notion, that is, it is self-consciousness that makes it possible for the subject to distinguish between himself and his environment (Bermúdez, 1998, p. 164). Second, it is assumed that the infant is already able to represent the *mind-independent* environment. To be sure, the infant manifests a relatively undeveloped *sense of itself* along with its undeveloped sense of its environment (1998, p. 164). One prominent limitation is that both are synchronic rather than diachronic. Still, under the assumption that the infant is already able to represent its mind-independent environment, the key assumption is the following: the ability to represent mind-independent entities requires from the subject the further ability to represent himself as the subject of his own representation. Let us call this the implicit argument. To my knowledge, no one has ever presented this argument in defense of the idea of primitive forms of self-consciousness as a condition of the explanation for original self-world dualism. Nonetheless, Strawson assumes the key premise above in different places. Commenting on Kant, for example, he claims that, "our pictures of the objective world and our picture of possible perceptual routes through it cannot be independent of each other" (1966, p. 105).

This argument has crucial flaws. To start with, every living creature differentiates itself from its environment. It expels matter as waste, ingests other bodies and not its own, protects itself from threats, and so on. However, this capacity to differentiate oneself from one's environment is not even representational, let alone an expression of a primitive form of self-consciousness, that is, the capacity to represent oneself as the subject of representations. If the simple ability to differentiate oneself from one's own environment were a sufficient condition for self-consciousness, then amoebas would be self-conscious creatures.

To be sure, the ability to *represent* one's mind-independent environment entails the ability of representing oneself, but representation of oneself as a condition for self-world dualism involves representation of the subject's bodily properties rather than representation of the subject as the originating viewpoint or as a singular experiential route (genuine self-consciousness), as Strawson claims. For example, infants manifest the ability to discriminate between tactile stimulation that is self-produced (self-stimulation) from tactile stimulation that is produced by someone else (allo-stimulation) (Rochat & Hespos, 1997), indicating that they already represent by their tactile experience their own bodily properties in opposition to the environmental properties of outside objects.

The main assumption of the argument neglects a key distinction: representing the

mind-independent environment is not the same as representing the environment *as* mind-independent. According to Kant, self-consciousness is a requirement to represent the world *as* mind-independent, but it is not a requirement to represent mind-independent objects. Moreover, in order to represent the world *as* mind-independent, the concept of object is also required. Thus, lacking both the concept of object and a self-concept, the subject is able to represent its mind-independent environment but is unable to represent it *as* mind-independent.

This indicates that there is also something faulty with the initial assumption. To be sure, self-consciousness is a contrastive notion, but the original self-world dualism is a contrast between the representation of the subject's properties and the representation of mind-independent properties rather than between the representation of the subject as the subject of representations and the representation of the environment as mind-independent. Thus, the implicit argument fails: genuine self-consciousness is not a condition for the original self-world dualism.

5. Egocentric Framework

Let us now focus on the candidates for the condition of primitive forms of self-consciousness involved in original self-world dualism. Bermúdez mentions two: what he calls the *self of ecological optics* and *somatic proprioception*. The idea of a self of ecological optics goes back to Gibsonian psychology (1979). Empirical research in recent developmental psychology offers a large amount of data that seem to support the assumption that the subject is a ubiquitous element in the field of perception (Bermúdez, 1998, p. 109). While, in the traditional constructivist view, visual perception is understood statically, seeking to show how three-dimensional representational contents of the world result from processing and storage of information given in the retina, according to Gibson's well-known view, perception is to be understood as an active process that involves movement and takes place in time. The emphasis shifts from the information given on the retina to the changing patterns in optical series resulting from movement of the perceiving subject. As a result of this Gibsonian view, it is claimed that there could not be structured visual perception without structuring self-perception. The idea is that the self is directly seen/manifested as a structural invariant of the visual field.

Regardless of whether the self is directly perceived in his own visual field or not, one could still maintain that that visual experience provides at least four sources of propriospecific information concerning the subject. In this section, we focus on the first two, concerning the self as a *structural invariant*.

To start with, it is claimed that the self is manifested in visual experience as being responsible for the boundedness of the visual field. Second, the self is manifested in visual experience as being responsible for the parts of the visual field that are hidden or occluded by various parts of the body. According to Gibson/Bermúdez, it is the underlying invariant structure of the visual field that allows perceptual order to emerge from what should otherwise be complete chaos.

To be sure, visual experience makes available not only exteroceptive information about objects, properties, and relations in the visual realm, but also about propriospecific

information concerning the subject himself as a *structural invariant* responsible for the boundedness of the visual field and as responsible for the occlusion of objects in the visual field. The question is whether the available propriospecific information concerning the subject as the structural invariant of the visual field can be regarded as a form of visual perception.

As the structural invariant that makes possible a perceptual order out of complete chaos, the ecological self is better seen as the origin of the subject's perspective: the egocentric framework. The subject's position is the origin of whatever spatial coordinate system the elements seen are represented within. Egocentric origins figure in representations of spatial and temporal relations. The distance of the object is computed as a relation between the subject's position and the position of the object. The timing of an event is measured with respect to the present time of the subject's experience. Still, as the structural invariant, the subject is indexed rather than perceived. The subject is part of the representational apparatus, even though he is not an object of his own visual experience.

Visual experience provides two further types of self-specifying information. First, the self is manifested in visual experience to the extent that visual experience provides not only exteroceptive information about objects, properties, and relations in the scene, but also information about the subject's movement. Second, the self is also manifest through the perception of affordances, that is, properties of objects that relate to the abilities of the perceiver provide the subject with information not only about the objects that are being perceived but also about the possibilities for action that these objects afford.

Let us focus on the idea of visual kinesthesis. The idea is that the mass of constantly changing visual information generated by the subject's motion cannot be accounted for by the traditional hypothesis of mechanisms that parse cues from the neutral sensations into information about the movement of and information about static objects. The crucial idea behind visual kinesthesis is that patterns of flow in the optical array and the relations between the variant and invariant features make available information about the movement of the perceiver. The so-called "moving-room" experiments are presented as strong support for the claim that the perceiver can detect purely visually his own movement in his visual field. Subjects are placed on the solid floors of rooms whose walls and ceilings can be made to glide over a solid and immoveable floor (Lishman & Lee, 1973). If the experimental subject is prevented from seeing his feet and, further, if the floor is hidden, then the moving of the walls backward and forward on the sagittal plane creates in the subject the illusion that he is moving back and forth.

There is no doubt that these experiments provide strong evidence in support of the thesis that visual experience makes available not only exteroceptive information about objects, properties, and relations in the visual field, but also propriospecific information concerning the subject's movement. Still, the question is whether this available propriospecific information can be understood as a form of perception of the subject's own movement, that is, whether the subject consciously detects his own movement by perceiving objects in his visual field.

What these "moving-room" experiments clearly reveal is that perception of the subject's own movement is unusual, rather depending on the uncommon circumstances of the experiments.

In normal conditions, the moving subject does not *see* his own movement as he sees the objects, properties, and relations in its visual field. To see his own movement, something must shift the subject's focus of attention from the object and its properties so that his visual experience represents to him his own moving body. That is what the moving-room experiments are about.

To be sure, a moving subject can only keep track of the position of a certain object in his visual field in relation to his own motion. Consider the optical flow in the visual field when the perceiver is moving. The optical flow starts from a stationary ego-center. This stationary ego-center specifies the point that is being approached, that is, the target point of locomotion is at the vanishing point of the optical flow. Still, none of this entails the assumption that by tracking the object the subject is tracking his own movement or representing it as a visual kinesthetic invariant. The available propriospecific information about the subject's movement does not qualify as perception of the subject's own movement.

Let us finally focus on the idea of affordances. Gibson's whole notion of affordance is that of environmental information about one's own possibilities of action. The idea behind is that perception of affordances is also a form of self-perception. Once more, there is no doubt that visual experience of affordances provides propriospecific information about the subject's possibilities of action. Still, the question is whether this propriospecific information qualifies as a form of self-perception. The egocentric frame of reference is privileged not only in that it is the viewpoint of visual experience, but also in that it has practical implications for the subject's needs. For example, the subject sees an apple within reach of his hand, takes it from the tree and eats it. Nothing suggests that by seeing the apple the subject is also *seeing* a possibility of action, however.

Therefore, as the egocentric framework of visual experience, Bermúdez's self of ecological optics is not the most primitive form of self-representation. Rather, it must be the most primitive pre-conceptual ancestor of the self-concept: the egocentric framework accounts for the IEM of *de se* thoughts: to the extent that the egocentric frame of reference marks the subject's body or bodily parts as the origin, when later the subject acquires the further ability to represent that origin as his point of view, the emerging self-representation must be IEM.

6. The Self and the Content of Visual Experience

Regardless of whether the subject is perceived or not when he undergoes a visual experience, one could still maintain that the self must have a place in the content of visual experience (Bermúdez, 1998, p. 108). The defender of the heterodox view claims that the assumption that the self has a place in the content of visual experience is the best explanation for the subject's intentional behavior that reflects his way of grasping the world. Bermúdez believes it possible to show that only under the assumption that the self has a place in the content of visual experience can we account for the possibility of misperceptions (1998, p. 116). Thus, for example, in the moving-room experiments, the movement of the room creates deceptive visual-kinesthetic information: the subject misperceives the movement of the room as his own movement and behaves accordingly (p 116).

Let us imagine a subject in the moving-room experiment seeing the walls as stationary and that such a visual experience can be couched in the following terms:

(6) Those walls are stationary.

To say that the subject has a place in the content of visual experience is to say that the correctness conditions of the content of his visual experience involve the subject undergoing it. The idea is that the content of (6) is correct or accurate iff the walls *in front of the subject* are stationary at the time he sees them.

On a closer look, however, the content of the visual experience expressed by the sentence (6) merely *concerns* the subject as the kinesthetic invariant in the visual experience. Intuitively, when the subject sees the walls moving, his visual experience is directed upon the walls and the property of being moved. The experience is not about the subject himself, as well as the walls.

We can clarify the subject's involvement by means of a critical analysis of Perry's idea of unarticulated constituents (1986). According to Perry's famous account (1986), Z-landers are a group who lived in complete isolation and who have never left Z-land, the place where they live. So, in the Z-landers' weather report (7), Z-land is an argument role of a certain relation that never changes:

(7) It is raining.

The correctness conditions of the content (7) involve Z-land, the place where Z-landers' weather report (7) is filed. The content of (7) is correct or accurate iff it is raining in Z-land at the time Z-landers think (7). To the extent that in weather reports made in Z-land like (7), Z-land is an argument role of a binary relation that never changes, Z-landers do not need to worry about Z-land. Z-land is a so-called "unarticulated constituent" of the content of (7), that is, a constituent of the content of (7) that is neither verbally articulated by the utterance of (7) nor mentally represented by the corresponding state or thought.

Likewise, to the extent that the subject, either as a structural invariant or as a kinesthetic invariant (as an egocentric frame of reference), is also an argument role that never changes, the subject does not have to worry about himself when he sees something. The subject is also an "unarticulated constituent" of the representational content of his visual experiences.

Perry's claim that Z-land is an unarticulated constituent of the content of Z-landers' weather reports is disputable. He supports his claim that in such cases the argument role is an unarticulated constituent of the content by arguing that the content of its thought would otherwise be an incomplete content in the sense of being a proposition without a determined truth-value.

This assumption is also questionable, however. Within the framework of Kaplanian semantics (1989), a sentence *S* is true at a context of use *c iff* the proposition *p* expressed by *S* at *c* is true at the default circumstance of evaluation determined by *c*. Default circumstances of evaluation are pairs of a world and a time, so a proposition *p* is true at a given circumstance *iff* the proposition is true at the world and time of that circumstance. Nothing prevents us from thinking of Z-land as a further aspect of the circumstance of evaluation of the content of Z-landers' weather reports, however, rather than as an unarticulated constituent of the content.

The assumption that the subject as the egocentric frame of reference is also an unarticulated constituent of the content of the subject's visual experience is also disputable for the same

reason. Nothing prevents us from thinking of the subject as a further aspect of the wide circumstance of evaluation of a selfless, person-relative proposition. Within the Kaplanian framework, the content of visual experiences could be modeled as a relativistic content that is true or false, but only relative to the so-called centered worlds). A centered world is a possible world with the subject (its egocentric frame of reference) and a time (and perhaps other parameters) marked at the center. We can call this view self-concernment without self-reference.

Be that as it may. Regardless of whether one accepts or rejects a relativistic framework (along with the idea of relativistic contents, true or false in centered worlds), it seems unreasonable to assume that the subject belongs to the content of his own visual experience as an unarticulated constituent. The subject's visual experience expressed by sentence (6) above is about the walls being stationary rather than about himself as a visually kinesthetic invariant. Intuitively, even in the abnormal circumstances of the moving-room experiments, the content of the visual experience expressed by (6) is inaccurate because the walls are misperceived as stationary. What are misperceived are *those* walls.

The thesis of "self-concernment without self-reference" provides a more plausible explanation for the possibility of misperception. Of course, we could not make sense of the subject's behavior unless we assume that he is concerned by the content of his visual experience. Still, assuming that the subject is representing himself as a visual kinesthetic invariant is an explanation for his behavior that is far from being parsimonious and hence does not seem to best reflect the peculiar way he captures the world around himself. To capture the subject's perspective, we do not need to assume that he is representing himself as moving egocentric frame of reference. We do better by assuming that he is representing selfless contents that are true or false at centered worlds with his egocentric framework marked at the center.

Thus, propriospecific information concerning the subject's movement is better seen as a case of self null-involvement in the content. The subject is self-concerned but not self-aware, much less self-conscious.

7. Bodily Property–Awareness

Proprioception of bodily properties and conditions is the result of the operation of internal somatic-information systems. It is not a unitary phenomenon, however. Some of these information systems operate sub-personally, below the level of consciousness, while others yield information that is consciously registered. Of this second category, some information systems register by means of bodily sensations (e.g., pains), while others register information independent of bodily sensations (e.g., kinesthetic consciousness).

It is further assumed, then, that proprioception of bodily properties (whether mediated or not) is a primitive form of self-consciousness that makes possible original self-world dualism (Bermúdez, 1998, pp. 132–4).

In support of his view, Bermúdez presents what he calls the *simple argument*:

1. The self is embodied.
2. Somatic proprioception provides perceptions of bodily properties.
3. Somatic proprioception is a form of self-perception.

4. Therefore, somatic proprioception is a form of self-consciousness. (p. 135)

Every step in this sequence is questionable. According to Bermúdez, however, only the second premise and the conclusion raise questions. The second premise raises the question of whether somatic proprioception can be regarded as the perception of bodily properties. If the answer to this question is affirmative, we have to face the further question raised by the conclusion, namely, whether somatic proprioception can be seen as a primitive form of self-consciousness.

The most intriguing question, however, is something that Bermúdez sees as unproblematic, namely, the assumption that (3) follows from (2), that is, that proprioception qualifies as self-perception under the assumption (2) that it involves perception of bodily properties that are in fact properties of one's self.

Let us focus on the second premise. If somatic proprioception provides perception of the subject's bodily properties, that perception should be understood as an object-perception rather than as a fact-perception (1998, p. 136). To qualify as a form of object-perception, however, somatic proprioception must meet at least the three constraints enlisted by Shoemaker (1994). Let us take a look on them. First, the object constraint: perception makes room for the distinction between sense-experience and the object of perception. Second, the identification constraint: perception provides information enabling the tracking of the object over time and its reidentification from one time to another. Third, the multiple-objects constraint: ordinary modes of perception admit a multiplicity of different objects (1994, pp. 254–255).

Let us suppose an individual sense his legs flexing and that that sensory state is couched in the terms of the following sentence:

(7) Those are flexing.

Here we have a clear case of perception of a bodily property. The mark of perceptual systems is perceptual constancy. Perceptual constancies are abilities to represent systematically the given distal properties even when the proximal stimulations caused by those properties vary radically. First, the object constraint is met: by sensing the flexing of his legs, the subject is representing the instantiation of the distal property of being flexed quite independently from the variation of the proximal stimulations. Second, the identification constraint is met: by sensing the flexing of his legs, the subject is able to track the property of being flexed over time and to reidentify it from one time to another. Third, the multiple-constraint is met: by sensing the flexing of his legs, the subject is able to pick out the property of being flexed from a manifold of other bodily properties. Thus, proprioception of bodily properties is a form of perception of those properties.

Nonetheless, from the perception of one's own bodily properties (property-awareness), the perception of oneself as the object instantiating those properties (object-awareness) does not follow. For one thing, it is not clear the object constraint is met. Even if we put aside Shoemaker's own strong interpretation of the constraint, requiring two separate things—ordinary experience and introspective experience—there is no clear evidence that by sensing the flexing of its legs the subject is representing himself as a perceptual constancy, that is, as the same distal object despite the variation of proximal stimulation. Moreover, it is

not clear that the second constraint is met either. Possible empirical evidence in favor of the assumption that the second constraint is met is the alleged fact that the subject can lose track of his own body or at least of his own bodily parts over time. This happens, for example, when he absent-mindedly walks home on automatic pilot or taps his foot in time to a piece of music without noticing (p. 144). However, normal individuals only lose track of their body or bodily parts in the weak introspective sense of not noticing or thinking about their own bodies and bodily limbs. They do not lose track of them in the relevant perceptual sense of losing track of something that disappears (becomes occluded) and reappears in perceptual field.

Neither is it clear that the third constraint is met. To show that the multiple-object constraint is met, Bermúdez claims that there is a coupling between tactile exteroception as peripheral awareness and tactile proprioception as focal awareness. The idea is that when the attention is fixed firmly on the proprioceptive dimension of tactile awareness, the exteroceptive dimension remains phenomenologically salient in the background awareness, and this provides the required multiplicity of different objects. However, the coupling between tactile exteroception as peripheral experience and tactile proprioception as focal experience provides a contrast between environmental properties and bodily properties rather than between the subject and the world, so we have no good reason to assume that (3) follows from (2), that is, that bodily self-awareness (object-awareness) follows directly from awareness of bodily properties (property-awareness) provided by somatic proprioception. In other words, the self is not given in its own perceptual experiences of the world and of its bodily properties.

In this regard, Hume is right when he famously remarked, “when I enter most intimately into what I call *myself, I* always stumble on some particular perception or other, of heat or cold, light or shade, love or hatred, pain or pleasure. I never catch *myself* at any time without a perception, and never can observe anything but the perception” (1739–40, Book I, part IV, sec. vi, p. 252). Using a phrase made famous by G. E. Moore (1903), what Hume’s remark highlights is the *diaphanous character* of the self as subject of its own perceptual experiences and ideas: whenever one tries to observe oneself as the subject undergoing perceptual experiences, one ends up by seeing or observing those very perceptual experiences. It is worth noticing that Hume’s and Wittgenstein’s metaphysical thesis about the elusiveness of the self does not follow from this epistemological viewpoint (i.e., that the self is not in the world or that the self is merely the limit of the world).

The receptors in the joints that perform the function of supplying information about the properties of someone’s leg (e.g., its position) can be compared with a pacemaker, which serves to supply information about the properties of someone’s heart (e.g., frequency of heartbeat). In the same way that the receptors in the joints are indissolubly connected to the feet of a particular subject, once a pacemaker is installed it is also indissolubly connected to the heart of a particular subject. Still, in the same way that the pacemaker does not have the function of registering information about *whose* heart it measures, the receptors in the joints do not have the function of registering information about *whose* legs they are supplying information about. Somatic proprioception is a nonconceptual *de re* representation of the bodily properties of whatever subject the receptors belong to. It is best understood as the representation of a *trope,* a particular instantiation of a universal property. Thus,

proprioceptive information is subject-free: the individual is certainly concerned to the extent that the bodily properties are his own, but he himself is not represented.

Moreover, recent research indicates that bodily self-awareness emerges from coupling visual representations with kinesthetic representations in an intermodal (polysensory) process that specifies the body as a distinct entity. Researchers have recently accumulated substantial amounts of data demonstrating the remarkable coordination of visual and postural/vestibular systems. Such coordination allows the subject to pick up information that specifies the movements of his own body in a stable environment or, conversely, the stability of the body in a moving environment (Butterworth, 1995; Bertenthal & Rose, 1995; Jouen & Gapenne, 1995).

Once more, the content of somatic proprioception is best modeled as a relativized proposition. The self is an aspect of the wide circumstance of evaluation rather than an unarticulated constituent of that content. The content of proprioception expressed by (7) is not the classical proposition that *my* leg is flexing, true or false in a possible world. What is represented is the person-relative content (the content of a predicate) "the flexing leg," true or false for a certain person marked at the center of a centered world. Therefore, somatic proprioception must be seen as a developmental ancestor rather than as a primitive nonconceptual form of self-consciousness. As such, it accounts for IEM. Since, by perceiving (proprioceptive) his leg flexing, the subject does not need to identify himself as the subject whose leg is flexing (if someone's leg is actually flexing), when later he acquires the further ability to represent himself on the basis of the somatic proprioception of his own body, his emerging representation of his self becomes IEM.

Let us assume for the sake of argument, however, that when the subject senses his legs flexing, he is already self-aware or aware of it as his own. Bodily self-awareness is certainly a further key antecedent of a self-file. To begin with, by coupling its proprioceptive representation with its visual representation, the subject's bodily self-awareness is immune to a reference failure: to the extent that both representations are subserved by information channels that do not yield information about anybody's bodily properties except the subject himself, there is no possibility of reference failure. Moreover, there is no question that in bodily self-awareness the subject is representing his body and bodily parts *as his own*.

However, the defender of the heterodox view faces the further problem of whether we are entitled to infer the conclusion from the third premise, that is, whether the subject's bodily self-awareness is a genuine form of self-consciousness. The suspicion is that self-consciousness is not available to individuals lacking a self-concept. Bodily self-awareness is a milestone in the developmental prehistory of self-consciousness but is still not a genuine form of self-consciousness.

To meet this objection, Bermúdez compares the individual sensing his own leg flexing with another individual feeling jealous (p. 146). According to the objection, the individual's perception of his own leg flexing, expressed by (7), is not a genuine form of self-consciousness, as expressed by the *de se* sentence

(8) My leg is flexing.

If this is so, however, and for the same reason, neither could the feeling of jealousy expressed

by the sentence (9) below be seen as a genuine form of self-consciousness, as expressed by the *de se* sentence (10):

(9) That's a feeling of jealousy.

(10) I am feeling jealous.

The intuition behind this is clear: one of the distinguishing features shared by proprioception and introspection is that they are subserved by information channels that do not yield information about anybody except the subject himself. In both cases, the individual refers to himself from the inside, viz. from a first-person perspective. Thus, if the distinction between (7) and (8) is telling against the heterodox view that somatic proprioception is a primitive form of self-consciousness, the parallel distinction between (9) and (10) should also be telling against the view that introspection is a form of self-consciousness (p. 146).

The defender of the orthodox view must bite the bullet: the feeling of jealousy expressed by sentence (9) is not a genuine case of self-consciousness! While sentences (8) and (10) express the individual's self-attribution of a first-person viewpoint or the self-attribution of experiences, sentences (7) and (9) merely express the individual's perception and introspection *from* a first-person viewpoint, and so cannot be considered as cases of genuine self-consciousness.

Although this response is along the right lines, it seems to beg the question at issue. After all, what the defender of the heterodox view claims is precisely that there are non-reflexive forms of self-consciousness in which the individual ascribes to himself his own first-person perspective (p. 167).

Even admitting, for sake of argument, that the individual's introspection of his feeling of jealousy is an inner perception of that feeling, it does not follow that by feeling jealous he is in any sense aware of himself as feeling jealous. For one thing, awareness of himself as feeling jealous is *awareness of a proposition*, what Dretske calls *fact-awareness,* that is, awareness of the fact that he himself feels jealous (Dretske, 1999). By contrast, awareness of feeling jealous is a form of *property-awareness*. Beyond feeling jealous, an awareness of himself as feeling jealous (fact-awareness) requires from him an understanding or conceptual grasp (i) of what feeling jealous as a mental state means and (ii) of what being oneself a subject undergoing the experience of jealousy means.

Likewise, if somatic proprioception is a perception of the individual's own bodily properties and even if, for the sake of argument, it is a form of self-awareness, it does not follow that by perceiving or being aware of his own leg flexing the individual is *per se* aware of himself as having a leg that is flexing. As before, awareness of himself as having a flexing leg is *fact-awareness* or awareness of the fact that he has his leg flexed. In contrast, somatic proprioception of leg flexing is a form of *property-awareness* and somatic proprioception of his own leg is *object-awareness*. Beyond the somatic proprioception (perception) of his own leg flexing, awareness of himself as having his own leg flexed requires from him an understanding or a conceptual grasp (i) of what perception of his flexing leg means and (ii) of what being a subject of perceptions means.

8. The Metaphysical Nature of the Self

According to Peacocke (2012), however, in between subject-free contents and the

full-fledged conceptual form of self-representation, we must recognize the existence of an intermediary level of a genuine nonconceptual form of self-consciousness. At this level, the subject enjoys states with nonconceptual content that represent the subject himself (nonconceptual self-representation) as having a location, and as standing in other relations in the spatial world (p. 88).

Peacocke provides three different examples of nonconceptual self-representation: In the first, the subject sees something coming towards him. In the second, the subject remembers having an earlier encounter at a particular location. The third is the example of the subject's action awareness of moving its head (p. 74). Let us assume that the subject's visual state of something coming can be expressed as follows:

(11) Something is coming towards me.

When a prey sees a predator coming towards it, the prey must represent its own position in relation to the position of the predator. In this regard, the creature is a component of the content of its own visual experience: the content of the creature's visual experience expressed by the sentence (11) is correct only in the case that something is coming toward the creature itself (the prey) (p. 75). Likewise, the content of the creature's memory of having an encounter at a particular location can only be correct if the creature remembers being at that location (p. 79).

What accounts for self-representation is the fact that the creature's mental states are subject-reflexive states, that is, states that are *intrinsically self-reflexive* (p. 79). This is what Peacocke calls *the subject-constitutive hypothesis*. It is a distinctive metaphysical claim. It is in the nature of this type of state that it possesses the property of being a self-referrer. Nonconceptual self-representation expressed by sentence (11) refers to creature in the *de jure* rigid way described by Kripke: the mental state refers to creature itself in every possible world quite independently of the satisfaction of conditions involved in the content.

Now the distinguishing feature of nonconceptual self-representation is the fact that the creature itself is incapable of integrating the content of subject-reflexive states consciously at the personal level. To start with the subject-reflexive state, for example, representing the creature as having a pond to its left does not entitle the creature to *judge* the conceptual content that the pond is to the left of it. Likewise, even being in the subject-reflexive state of representing a pond to its left and in the subject-reflexive state of representing itself as running ahead, the creature is not in a position *to infer* that it both has a pond to its left and that it runs straight ahead. Without a self-concept, the creature is insensitive to its own *de se* contents as reasons to perform inferences and as reasons to act intentionally. Even representing itself as instantiating a conjunction of the two properties, it by no means follows that the creature is in a position to appreciate that it is one and the same creature that both has a pond to its left and that is running straight ahead.

The question is what accounts for the integration of both subject-reflexive states. As Peacocke himself indicates, in case of a self-concept, the integration is carried out consciously at the personal level by so-called transcendental apperception (2012, p. 84). As Kant famously puts it: "The I think must be able to accompany all my representations; for otherwise something would be represented in me that could not be thought at all, which is the

same as saying that the representation would either be impossible or else at least would be nothing for me" (B 131–2). What integrates the subject-reflexive state representing the pond to my left with the other subject-reflexive state of my running straight ahead is the fact that both representations are metarepresented by the "I think" *as my* representations. By metarepresenting the representation of a pond to my left *as mine,* and by metarepresenting the representation of my running straight ahead *as mine,* I am in a position to infer that I am the same creature that has a pond to its left and that is running straight ahead.

By contrast, what integrates nonconceptual subject-reflexive states is the blind fact that they belong to the same primitive file the creature has on itself, opened in the creature's mind because of the fundamental relation of identity it bears to itself. It is because of this that the creature in the subject-reflexive state of representing itself as having a pond to its left and in the subject-reflexive state of representing itself as running straight ahead is capable of representing itself as having the conjunctive property without being in a position to appreciate that it is one and the same thing that is in both states.

A crucial difficulty emerges here, however. The problem is not the assumption that the subject-reflexive states refer to the creature *de re*, nor that they refer non-intentionally in the same way that Mach self-refers in (1) (Peacocke 2012, p. 76). Instead, the problem is the creature's inability to recognize the representation of the properties hosted in its primitive file as its own. If I am not able to think (metarepresent) of my subject-reflexive states *as representations of my own properties*, I am *ipso facto* unable to recognize that property as my own and so unable to entertain a genuine I-thought. Let us suppose that a subject-reflexive state of mine represents my head moving but that, being nonconceptual, I am unable to think of that subject-reflexive state as representing the property of having the head move *as a representation of my property*. Being unable to represent the representation of that property as my own, I am unable to recognize it as my own condition. Therefore, I am unable to entertain the genuine I-thought "my head is moving."

This brings us back to Peacocke's subject-constitutive thesis. To be sure, it is in the nature of certain types of mental state that they possess the property of being self-referrers. As a consequence, we must recognize that the nature of subjects and the nature of conscious states and events are ontologically interdependent (p. 89). Specifying the nature of either involves specifying the nature of the other. Thus, it is in the nature of being a subject that it is capable of being in conscious states and of being the subject of conscious events. Moreover, it is in the nature of being a conscious state or event that they are a states or event of a subject.

Still, the distinguishing metaphysical feature of the self is not captured by Peacocke's subject-constitutive hypothesis. The existence of subject-reflexive states that *de jure* represent the creature by representing something else accounts for the metaphysical nature of subjects rather than for the metaphysical nature of selves. The distinguishing metaphysical feature of the self is accounted for by the existence of metarepresentations of a special kind. First, metarepresentations are not merely representations of representations. They are representations of them *qua* representations (Dretske, 1995, p. 43). The metarepresentation in question not only represents a representation as a representation, however. It represents the representation as the subject's own representation. It is in the nature of such metarepresentations that they represent representations as the subject's representations.

The emerging picture is this: selves are not just the subjects of representations. Selves are entities that represent themselves as the subjects of experiences and propositional attitudes. Their metaphysical nature lies in their capacity to represent themselves as the subjects of their own representations.

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