The polysemy of "I"

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Abstract

Orthodoxy assumes that the first-person thoughts of an individual are anchored to a stable object. I challenge this assumption by arguing that "I" is polysemous. The perspectival anchor of a first-person thought could be the bearer of the thought, the agent, the bearer of perception, or a body, to name just a few options. These different possible anchors do not form a unity. So, a unified or minimal self cannot, without argument, be posited as the stable anchor of on individual's first-person thoughts. I show how the polysemy of "I" can be analyzed in terms of polysemous mental files.

KEYWORDS

first-person thoughts, *de se* content, reflexivity, self-file, polysemy, reference, mental files

1. INTRODUCTION

Having a perspective limits what we can know and experience about the world while providing egocentric information unavailable to an organism that is not spatiotemporally located. Such

egocentric information may amount to self-locating information.[1] Following standard philosophical terminology, we can call content that includes self-locating information first-person content or *de se* content. First-person content reflects the fact that we access the world from a perspective. The correctness condition of such content depends on the individual who is in the mental state with that content.

Orthodoxy has it that there is a stable object on which first-person thoughts of the same individual are anchored.[2] This object is standardly specified as the self or the bearer of the relevant thought. This is assumed by views that agree on little else. To illustrate, according to centered world views, it constitutes the center that serves as a thought's index of evaluation, perhaps among other constituents of that center. Representational views of *de se* thought have it that a first-person thought represents the bearer of the thought.[3]

This paper challenges this orthodoxy. I argue that the first-person concept (and its nonconceptual analog) is polysemous even when employed by the same individual.[4] This is a radical thesis, but I hope to make it plausible. I will proceed as follows. After specifying the notion of *de se* content (Section 2), I argue that it is not nearly as clear as traditionally assumed what the referent or anchor of a first-person thought is: it could be an agent, the owner of a thought, the creator of a thought, the bearer of perception, the bearer of emotion, or a body, to name just a few options. These different possible perspectival anchors need not form a unity. So, a unified self cannot, without argument, be posited to be the perspectival anchor that is stable across different

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[1] For an argument that not all egocentric information is self-locating information, see Schellenberg (2016).

[2] This view is implicitly or explicitly assumed by Castañeda (1966), Loar (1976), Perry (1979), Chisholm (1982), Recanati (2007, 2024), García-Carpintero (2013, 2017), Egan (2006), Stephenson (2007), Ninan (2009, 2016), Torre (2010), Moss (2012), Weber (2013), Kölbel (2013), Kindermann (2016), Magidor (2015), Sebastián (2019) among others.

[3] I discuss both views in more detail shortly. For centered world views, see Loar (1976), Egan (2006), Stephenson (2007), and Ninan (2009), among others. For representational views, see Castañeda (1966), Chisholm (1982), Perry (1979), Recanati (2007), García-Carpintero (2013), Peacocke (2014), among others. It should be noted that on Lewis's (1979) centered worlds view, the self that is part of the center is a time-slice.

[4] For alternative critical discussions of *de se* content, see Millikan (1990), Cappelen and Dever (2013), García-Carpintero (2017), Ninan (2016), Magidor (2015), and Sebastián (2019) among others.

first-person thoughts of the same individual. The same holds for appeals to a minimal self or a bare self. If this is right, then the ball is in the traditionalist's court to defend the assumption that there is a stable anchor across different first-person thoughts of the same individual (Section 3). In light of this, I defend the thesis that the first-person concept is polysemous and develop that idea by arguing that it is a polysemous reflexive file (Section 4). Throughout, my focus is positive. It is not on refuting the traditional view of *de se* content. My goal is twofold: to show that it cannot be assumed without argument that there is a stable anchor of first-person thoughts of the same individual and to defend the view that the first-person concept is polysemous.

2. VARIETIES OF *DE SE* CONTENT

We will need a clear understanding of our target. All parties agree that when I say, "I am thirsty," that thought is true only if I am thirsty. When you say, "I am thirsty," that thought is true only if you are thirsty. Beyond this point of agreement, there is considerable controversy about the nature of first person thoughts. One point of dispute is whether the *de se* element of a first-person thought is represented. On *representational views*, a first-person thought represents the self of the individual entertaining the thought. Often, what is represented is specified as the bearer of the thought.[5] By contrast, Anscombe (1975, p. 148) famously argued that first-person thoughts can be characterized by an absence of self-representation. In this tradition, it has been argued that at least some first-person thoughts do not refer to the individual entertaining the thought.[6] On such *non-representational views*, a *de se* thought can have the form *F(x)*. To illustrate, "I am hungry" would have the form "hungry (*x*)." The egocentricity of the thought is accounted for in that its evaluation condition extends the represented content and includes, for example, the bearer of the thought.

Non-representational views have been developed in most detail in the centered worlds framework. On this approach, the bearer of a *de se* thought constitutes the center or anchor of a centered world along with a time and location, and possible additional parameters, such as taste

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[5] For defenses of such views, see Castañeda (1966), Chisholm (1982), Perry (1979), García-Carpintero (2013), Peacocke (2014), among others.

[6] For a defense of this view, see Loar (1976), Lewis (1979), Chisholm (1982), Egan (2006), Recanati (2007, 2012, 2014), Stephenson (2007), and Ninan (2009, 2016) among others.

preferences, epistemic norms, a standard of precision, or moral values.[7] It is important to note, however, that a non-representational view need not be developed within a centered worlds framework. Recanati, for example, distinguishes between explicit and implicit *de se* thoughts. While explicit first-person thoughts include self-representation, he argues that implicit *de se* thoughts are egocentric despite including neither self-representation nor self-reference. As he puts it: "In implicit *de se* thoughts, the self is not articulated, it only features in the index of evaluation" (Recanati 2007, p. 260).

Non-representational views are more parsimonious in that they do not require that a *de se* content manifests self-reference. However, as it concerns assumptions about the perspectival anchor, their views face the same problems as representational views.

To remain neutral between representational and non-representational views, I will speak of *perspectival anchors*. On representational views, the perspectival anchor is represented and the referent of the *de se* thought. On centered world views, the perspectival anchor constitutes the center of the relevant world, along with a time and location and other possible parameters, such as taste preferences, epistemic norms, moral values, or a standard of precision.

The notion of a perspectival anchor allows us to formulate the following minimal condition on *de se* content:

Minimal condition on de se content: The correctness condition of *de se* content *C* depends on the perspectival anchor of *C*.

Further, the notion of a perspectival anchor allows us to articulate the challenge more pointedly. Is there a stable perspectival anchor across different *de se* thoughts of the same individual? The *de se* traditionalist assumes there is. I challenge this assumption.

The *de se* traditionalist can acknowledge, of course, that we gradually change over an extended period. The fact that an adult differs from when she was a toddler can be understood as implying that the perspectival anchor of an adult's *de se* thought differs from that person's anchor as a

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[7] See Lewis (1979), Egan (2006), Stephenson (2007), and Ninan (2009) among others.

toddler. The question is whether the anchor of an individual's first-person thoughts can change from moment to moment.

A second point of disagreement in the literature on *de se* content, is about which mental states can have *de se* content. We can distinguish the following three views:

De se conservatives: A mental state with *de se* content is a thought that includes a first-person concept.

De se liberals: A mental state with *de se* content is a thought that includes the subject in the index of evaluation but need not include a first-person concept.

De se radicals: A mental state with *de se* content is a mental state that includes the subject in the index of evaluation.

To clarify the difference between conservatives, liberals, and radicals and how their views intersect with representational and non-representational views, it will be helpful to distinguish between three categories of mental states:

1. Thoughts about oneself as oneself that include a first-person concept.
2. Thoughts about the world that include the subject in the index of evaluation.
3. Mental states that include the subject in the index of evaluation.

All parties agree that thoughts about oneself as oneself that explicitly include a first-person concept have *de se* content. An example of such a thought is "I think asparagus is tasty." *De se* conservatives have it that only such thoughts qualify as having *de se* content. By contrast, *de se* liberals and radicals have it that it is sufficient for a thought to have *de se* content if the subject who entertains the thought is included in the index of evaluation. So, they hold that a thought that does not include a first-person concept could be a *de se* thought. An example of such a thought is "Asparagus is tasty." While all non-representationalists are liberals about *de se* content, one could be a liberal while having a representational view. For example, Bermudez (2000) and Peacocke

(2012), among others, argue that a thought could have *de se* content while representing the self nonconceptually, thereby referring to the self without using a first-person concept.[8] Thus, a *de se* liberal could have a representational or non-representational view. In short, all parties hold that the thought "I think that asparagus is tasty" has *de se* content. Liberals and non-representationalists of all stripes hold that "Asparagus is tasty" when uttered by an individual also has *de se* content, while conservatives deny that it does.

De se radicals argue that not only thoughts qualify as having *de se* content but any perspectival mental state that includes the subject in the index of evaluation. So, not only a thought but also a perception, emotion, imagination, or even an intentional action could have *de se* content. As Peacocke puts it, a *de se* element enters "the content of a huge range of perceptions, action awareness, and intentions" (Peacocke, 2014, p. 201).[9]

To challenge the *de se* traditionalist, I will argue against the *de se* liberal and the *de se* conservative. Any argument against them generalizes to an argument against the *de se* radical. So, I focus on the hardest cases and show that even on the most restricted views of *de se* content, there is no guarantee of continuity of perspectival anchor across an individual's *de se* thoughts. If the challenge has any force, it bears on any view of *de se* content on which the perspectival anchor of different *de se* contents of the same individual is posited to be stable.

3. THE MANY POSSIBLE PERSPECTIVAL ANCHORS OF *DE SE* THOUGHTS

To provide an initial motivation for the challenge to the *de se* traditionalist, consider the following five *de se* thoughts:

> (1) I have a rash on my arm.
> (2) I am running.
> (3) I am anxious.

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[8] Peacocke (2024) rejects his earlier distinction between conceptual and nonconceptual content.

[9] Views on which *de se* content enters any form of conscious state have been defended also by Rosenthal (2005), Kriegel (2009), and Nida-Rümelin (2017), among others.

(4) I see an apple.

(5) I think that is interesting.

Orthodoxy has it that if the same individual entertains each of these thoughts and the thoughts are true, then the perspectival anchor of each is the same.[10] However, is the perspectival anchor the same? Is the perspectival anchor of "I am anxious" the bearer of the thought or the bearer of the emotion? Could the perspectival anchor of "I have a rash on my arm" and "I see an apple" be distinct, even if the same individual entertains the two thoughts? To motivate why one might answer the question affirmatively: What makes the thought "I have a rash on my arm" true is whether the physical arm of the being entertaining the thought has a rash; by contrast, what makes the thought "I see an apple" true is whether a perceptual relation holds between the bearer of the perception and an apple. More generally, for each thought, what makes the thought true can be understood to be distinct. In the first, the index of evaluation can be understood to include a body; in the second, an agent (and perhaps also a body); in the third, the bearer of emotions; and so forth. While in humans, the body, agent, and the bearer of emotions, perceptions, and thoughts spatially overlap and are functionally at least to some extent intertwined, one can imagine an organism or system in which they are spatially separated and functionally discrete. If this is right, then the perspectival anchor of each of the five thoughts can be understood to differ even if entertained by the same individual:

De se thought	Perspectival anchor
I have a rash on my arm.	body
I am running.	agent (and body)
I am anxious.	bearer of emotions
I see an apple.	bearer of perceptions
I think that is interesting.	bearer of thoughts

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[10] For ease of presentation, I will throughout assume that the relevant thoughts are true.

In the literature on *de se* content, the referent of the first-person pronoun is standardly specified as the bearer of the relevant thought. For example, Peacocke argues: "For the first person, the rule is that any particular use of the first-person concept in a thought refers to the thinker of the thought" (2010, p. 183). Similarly, Recanati writes, "the first-person concept refers to the thinker of the thought in which it is deployed" (2014, p. 506).[11] The idea that the first-person pronoun refers to the bearer of the thought is not restricted to the literature on *de se* content. It is nearly omnipresent in Western philosophical thinking—often articulated in terms of a Cartesian Ego.[12] Building on this doctrine, the *de se* traditionalist could argue that in all five thoughts listed above, the first-person pronoun refers to the bearer of the thought and that is all we need to have continuity in perspectival anchor across the five thoughts.

Picking one among the many possible perspectival anchors and declaring that the referent of "I" seemingly solves the problem of the variety of possible perspectival anchors. This approach would even allow acknowledging that the first-person pronoun has multiple possible referents (and so is polysemous) while contending that in a *de se* thought, only one of its possible referents is relevant, namely the thought's bearer. There are, however, several problems with this approach.

For the sake of argument, let us first assume that in every *de se* thought, the perspectival anchor is in some way related to the bearer of the thought. Even if we go along with this assumption, there are problems. It is important to distinguish between the creator of a thought and its owner. Studies show that the two can come apart in cases of involuntary thoughts and thought insertion. In involuntary thoughts, an individual can have a sense of ownership of a thought while lacking a sense of being its creator.

In cases of thought insertion, as reported by patients with schizophrenia, thoughts are experienced as inserted by an external agent. There is considerable disagreement about how to analyze such cases. Campbell (1999) argues that in thought insertion, the person has a sense of being the creator of the thought (what he calls "a sense of agency" yet lacks a sense of ownership. In contrast, Stephens and Graham (1994) argue that the person lacks a sense of being the creator of the thought but retains a sense of ownership over it. Gallagher (2004), Zahavi (2008), and

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[11] For similar formulations, see Echeverri (2020), among many others.

[12] For a contrarian voice, see Parfit (1987, pp. 274–82).

Maiese (2016) argue that in cases of thought of insertion, both the sense of being the creator of the thought and the sense of ownership are disrupted. All parties agree that cases of thought insertion involve a disruption in either the sense of ownership of the thought, the sense of being the creator of the thought, or both. It has been argued, moreover, that in thought insertion, not only the sense of ownership but ownership itself is disrupted (Bortolotti, 2005).[13]

Now, the traditionalist could object that the issue is not about how things seem to the individual but rather whether the individual is, in fact, the owner or creator of her thoughts. In response, the point is that if the perspectival anchor of a first-person thought can be the creator of the thought at the exclusion of its owner and vice versa, then there will be at least some cases in which the perspectival anchor shifts between first-person thoughts. After all, as these cases show, the ascription of ownership can come apart from the ascription of being the creator of a thought. In short, even if we go along with the *de se* traditionalist and assume that in every first-person thought, the perspectival anchor is related to the bearer of the thought, issues are more subtle than the traditionalist presents them to be: In at least some cases, the bearer of a thought could either be the owner of the thought or its creator. If that is right, then there could be a shift in perspectival anchor.

More importantly, in the first four of the five thoughts above—assuming again that they are true—the bearer of the thought is arguably not the referent of the first-person pronoun. To show why, it will be necessary to take a closer look. Consider Robin. He is anxious and expresses his emotional state by saying, "I am anxious." So, he is the bearer of the thought, "I am anxious." However, in expressing his emotional state, he is referring to the bearer of the emotion, not the bearer of the thought. After all, he is anxious in virtue of bearing an emotion. If this is right, then the first-person pronoun in the relevant thought refers not to the bearer of a thought, but rather to the bearer of an emotion. This is the case even if we acknowledge that the thought has a bearer. So, Robin can be the bearer of a thought that includes the first-person concept, but that concept can refer to the bearer of the emotion expressed by the thought rather than the bearer of the thought.

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[13] For discussion of thought insertion in relation to *de se* content, see Coliva (2002), Seeger (2015), Duncan (2019), and Echeverri (2020).

In non-representational terms, the point can be expressed as follows: the perspectival anchor of "I am anxious" is the bearer of the emotion expressed, not the bearer of the thought.

Now, Robin sees an apple and says, "I see an apple." So having perceived an apple, he forms a thought. However, in expressing that thought, he refers to the bearer of the perception—although, of course, not necessarily explicitly or under that description. After all, in expressing the thought, he is reporting a perception. If this is right, then the first-person pronoun in the thought refers to a bearer of a perception, not a bearer of a thought.

Robin goes for a run and reports, "I am running." So, he is the bearer of the thought, "I am running." However, in expressing what he is doing, he is arguably referring not the bearer of the thought, but rather to the agent of the action and perhaps his body. After all, he is running in virtue of being the agent that is executing the relevant motor commands and bodily movements. If this is right, then the first-person pronoun in the relevant thought refers not to the bearer of the thought, but the agent executing the action that the thought reports. This is the case even if we acknowledge that the thought has a bearer. If this is right, then Robin can be the bearer of a thought that includes the first-person concept, but that concept can refer to the agent initiating the action and the body executing it rather than the bearer of the thought. During his run, Robin develops a rash on his arm and forms the thought "I have a rash on my arm." While she forms a thought, what makes the thought true is facts about her body, not the bearer of the thought. If that is right, then the first-person pronoun arguably refers not to the bearer of the thought but rather to her body.

So, in the thought "I see an apple," the first-person pronoun can be understood to refer to the bearer of the perception, assuming the thought is true. By contrast, in the thought "I am anxious," it can be understood to refer to the bearer of the emotion. In the thought "I have a rash on my arm," it can be understood to refer to the speaker's body. If this is right, then the reference of "I" can be understood to be distinct in each of the five thoughts, even when uttered by the same individual. While the bearer of thoughts is the center of an individual's deictic space, it is not the center of her emotional, perceptual, or agential space.

In response to the argument so far, the *de se* traditionalist could hold that the perspectival anchor of any first-person thought is the bare self. Specified in representational terms, the idea is that the object to which the first-person pronoun refers is nothing more than a bare self or a grammatical person. Is there such a bare self? In specifying the referent of "I," one mentions an

agent, the bearer of thought, or the bearer of perception, to name again just a few options. Arguably, each specification determines a different referent. The defender of the bare self could counter that there is no need to bring in any description. In response, the point is not about descriptions. The point is that no single object is the stable referent or center across different *de se* thoughts. There are many things to which the first-person pronoun can refer, none of which is more fundamental than the others. Stipulating that there is a bare self that serves as the anchor of each first-person thought is *ad hoc*.

The *de se* traditionalist could come back and insist that foundational features such as the bearer of thoughts, the agent, a body, the bearer of emotions, and the bearer of perceptions jointly constitute a self and that the first-person pronoun refers to this self. There are at least two ways in which this idea can be developed. One is to argue that the anchor of a first-person thought is a *minimal self* that is constituted by key foundational features, such as the ones listed above. The other is to say that the anchor is a *unified self* that, in addition to foundational features, includes features such as the individual's social and professional roles, her self-concepts, and perhaps even her self-narrative. While the representationalist would contend that the minimal or unified self is the referent of the first-person pronoun, the non-representationalist would posit that it constitutes the center or anchor of the centered world.[14]

In response, it will be helpful to make a threefold distinction:

1. An individual can have a sense of having a self.
2. The individual has a self.
3. An individual's self is the anchor of each of her *de se* contents.

We can all agree that an individual can have a sense of having a self. Thus, we can accept (1). However, having a sense of x does not entail the existence of x. So, it does not follow from an individual having a sense of having a self (1) that she has a self (2).

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[14] Recanati assumes a version of this view. Email correspondence.

For the sake of argument, however, assume that we each have a self. Even if this were the case, this does not entail that an individual's alleged self is the anchor of each of her *de se* thoughts. Cases of illusion show that the perceptual module is largely autonomous from the thought module. To illustrate, consider the Müller-Lyer illusion. The two lines of the Müller-Lyer illusion seem to have different lengths, even after we cognitively appreciate that they are the same length. The perceptual system is unaffected by the belief that the lines are the same length. This is just one of many examples that show the degree to which our cognitive, perceptual, emotional, agential, and physical realms can operate largely independently. While it might seem to us that the bearer of our perceptions is the same as the bearer of our thoughts, such cases show the degree to which perception and cognition are functionally autonomous.[15]

Now, a human agent can be argued to be co-located with a body and the bearer of thoughts, perceptions, and emotions, which could be taken as ground for the idea that there a self that is equally the bearer of the thoughts, emotions, perceptions, and actions of the relevant individual. In response, it is metaphysically possible that the possible anchors of first-person thoughts are not so co-located. We should not draw conclusions from contingent facts about humans about the nature of the so-called self. As illustrated pointedly by Dennett (1978), it is easy to imagine an individual in which the perceptual system and the agential system is spatially separated.

Moreover, even if in humans, the body, agent, and the bearer of emotions, perceptions, and thoughts spatially overlap, they are not perfectly co-located. The egocentric frame of reference of a perceiver is centered on a different point when she is seeing than when she is hearing. Similarly, when an agent is running her egocentric frame of reference is centered on a different point than when she is writing. In some cases, the egocentric frame of reference can be centered outside of the body (Maravita & Iriki, 2004). To illustrate, consider a surgeon who is operating with an endoscope, that is, a thin, flexible tube with a light and camera attached to it, used in minimally invasive surgical procedures. When a surgeon operates using an endoscope, her visual egocentric frame of reference may be centered not on her eyes, but rather on the endoscopic camera. Moreover, the surgeon's agential egocentric frame of reference may become fractured or

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[15] For discussion of many further cases and a general theory of cognitive architecture, and the functional independence of perception and cognition, see Block (2023). For critical discussion, see Schellenberg et al. (2024).

distributed. Her motor control is split between her own body, which remains outside the patient, and the micro-surgical tools inside the patient.

Similarly, individuals who navigate their surroundings via a white cane rather than eyesight report that the white cane is an integrated part of their body and perceptual system. After repeated use and training and by sweeping the cane back and forth, the vibrations and tactile feedback from the cane provide rich spatial information about the environment. Information about the texture, slope, and firmness of the ground, the presence of obstacles, and the location of curbs and steps is conveyed through the cane. Over time, the individual learns subconsciously and consciously to interpret the information such that they can construct a detailed map of their surroundings. The tactile information is subpersonally integrated with sensory information from audition and proprioception. The cane may be experienced no longer as a separate object, but as an extension of the individual's body and tactile perceptual system.

In both cases—the surgeon with the endoscope and the individual with the white cane—proficiency with the tool can lead to the center of egocentric frames of reference being outside the individual's body. In short, while there is typically spatial overlap between different possible perspectival anchors of humans, they are not co-located. So, the idea of a self cannot be grounded in the alleged co-location of a human agent, a body, the bearer of perception, the bearer of emotion, and other possible referents of the first-person pronoun.

Most importantly, as argued above, even if the different possible perspectival anchors were unified, each of these perspectival anchors are functionally largely independent. One can imagine an organism or system in which they are radically spatially separated and functionally discrete. If this is right, then we should reject the idea that the anchor of each of an individual's *de se* thoughts is a unified or minimal self (3), regardless of our stance on the existence of a unified or minimal self (2). In short, while we may have a sense of having a self, and even a unified self, the anchor of our first-person thoughts need not be a minimal or unified self, whatever that may be. The anchors of our first-person thoughts may be less unified than it seems.

4. POLYSEMOUS REFLEXIVE FILES

I have argued that the first-person pronoun can be understood to refer to the bearer of a thought, the owner of a thought, the creator of a thought, an agent, the bearer of a perception, the bearer of

an emotion, or a body, again to name just a few options. Now, all parties agree that the first-person concept has a stable meaning and can be used in each of the five thoughts listed earlier. How can we account for this stability of meaning despite instability of reference?

We can reconcile the two if we recognize that the first-person concept (and its nonconceptual analog) is polysemous. Subtleties aside, a non-indexical polysemous concept is a concept that has a stable meaning yet refers to different objects.[16] So far, I have remained neutral on representational and non-representational views of *de se* content. After all, my argument that there are many possible anchors of a *de se* content does not hinge on whether one analyzes *de se* content in a centered worlds framework or holds that subjects self-represent when entertaining a *de se* thought. In arguing that the first-person pronoun is polysemous, I will, for ease of presentation, adopt a representational view. However, with some modifications, the main ideas can be accepted in a non-representational framework. To develop the thesis that the first-person concept is polysemous, it will be helpful to take a closer look at the nature of polysemy.

4.1   Polysemy

A polysemous concept has more than one referent but the referents are related. Here are a few examples of sentences involving polysemous concepts:

(1) Lunch was tasty but went on forever.

(2) She drank both bottles, so the bottles are now empty.

(3) The book was interesting but heavy.

In the sentence, "Lunch was tasty but went on forever," "lunch" first refers to food and then to an event. Food cannot go on forever, and an event cannot be tasty. It is the event that goes on forever and the food that is tasty. As in most languages, the English words for meals refer both to an event and the food eaten during that event.

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[16] I am here following, the standard understanding on which a polysemous word has one meaning yet different referents (Pustejosky, 1995). For recent analyses of polysemy, see Quilty-Dunn (2021), Ortega-Andrés and Vicente (2019), and Liebesman and Magidor (2024).

Similarly, "bottle" can refer to a container and the content of a container. In the sentence, "She drank both bottles, so the bottles are now empty," "bottles" refers first to the content of containers and then to the containers themselves. We do not drink containers; we drink their contents. So, what she drank is not what is now empty. To discuss one last example of polysemy: "book" can refer to a physical object or its content. In the sentence, "The book was interesting but heavy," "book" first refers to the content and then to a physical object, assuming "heavy" is not used metaphorically.[17]

Polysemy can be contrasted with co-predication.[18] Cases of co-predication that do not amount to polysemy include:

    (4) The bottle is green and full.
    (5) Lunch was tasty and spicy.

Polysemy is to be contrasted further from homonymy. Polysemy and homonymy are both forms of lexical ambiguity.[19] Homonyms have the same orthography (or phonology), yet different and unrelated referents. A classic example is "bank," which famously can refer to a riverside or a financial institution. Since its two referents have no relation, "bank" is homonymous rather than polysemous.

It should be noted that Devitt (2021) argues that in cases of alleged polysemy, the two professed referents are, in fact, aspects of the same object: there only seem to be two referents. Against this approach, I argue that in the case of the first-person pronoun, the distinct referents of "I" cannot be reconstrued as aspects of the same object. Fodor and Lepore (1998) take the opposite approach, arguing that all cases of polysemy are actually cases of homonymy. As they contend, alleged cases of polysemy are simply cases in which we have the intuition that the referents are related. However, this intuition is not based in reality, or so they argue. We need not take a stance on this issue here. If it turns out that the first-person concept (and its nonconceptual analogs) is

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[17] For discussion of this example, see Ortega-Andrés and Vicente (2019).
[18] It should be noted that co-predication and polysemy can go hand in hand. See Ortega-Andrés and Vicente (2019) for discussion.
[19] Nothing in my argument hinges on how to understand the precise relation between polysemy and ambiguity.

homonymous rather than polysemous, nothing else in my argument would change. The crucial point is that "I" may have different referents even when articulated by the same individual.

4.2 Polysemous reflexive files, mental files, and self-files

How should we develop the view that the first-person pronoun is polysemous? There are many options. I will do so in the framework of mental files. The theoretical construct of mental files is used to explain how individuals store, organize, and access information about objects. On the standard view, a mental file is a repository of information (or misinformation) about an object and refers to that object. So on the standard view, a mental file is a singular concept.[20] There is an epistemically rewarding (ER) relation between the subject who possesses the mental file and the object to which the file refers, where an ER relation is a relation between a subject and an object that allows the subject to gain information about that object. We can distinguish two aspects of ER relations: an enabling relation and an information-gaining relation.[21] The framework of mental files can be exploited to provide an analysis of the first-person pronoun. A self-file is an individual's mental file of herself. According to orthodoxy, a self-file has just one referent, namely the self or the bearer of the thought.

How can the traditional notion of a self-file be exploited to develop the idea that the first-person concept is polysemous? The framework of a self-file provides a way of understanding the first-person concept such that it is grounded in sufficient mental structure to provide stability in meaning despite having multiple possible referents. Specifically, it provides a framework for analyzing the fact that there is an anaphoric relation between different possible referents of the first-person pronoun. I refer to the mental file as a "reflexive file," since I argue that the function of the mental file is to manifest reflexivity. The term "reflexive file" also avoids any implication that the mental file refers to the self, whatever that may be.

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[20] While on the traditional conception a mental file is always a singular concept or correlated with a singular concept (see Recanati, 2012), mental files have been understood to be (or correlate with) general concepts (see, for example, Quilty-Dunn, 2021). For a general discussion of mental files, see Prosser (2020).

[21] For the notion of ER relations, see Perry (1980) and Recanati (2014), among others. In demonstratives, the enabling and the information gaining relations are each the relation of attention.

Developing the notion of a polysemous reflexive file requires straying significantly from orthodox accounts of mental files. After all, according to the orthodox view, a mental file has just one referent. Nonetheless, I develop my view in terms of mental files since a mental file provides a framework that can furnish stability in meaning despite instability in reference.

Self-files and reflexive files are unique in that the ER relation holds, not between a subject and an object as is the case on standard mental files, but rather between the subject and herself, or possible referents of the first-person pronoun. As Recanati puts it succinctly:

> "A first-person thought is a thought which deploys the first-person concept, where the first-person concept is construed as a special kind of 'mental file.' Mental files are based on, and their referent determined by, epistemically rewarding (ER) relations in which the subject stands to entities in the environment. In the case of the Self-file, the relevant ER relation is identity" (Recanati, 2014, p. 506).[22]

Due to the enabling relation being that of identity, the subject can gain information about herself in a way that no one else can, namely from her subjective perspective (Perry, 2002; Recanati, 2012). There are many ways of gaining information about oneself. They include self-awareness, memory, proprioception, and introspection, among others. Each of these ways of gaining information about oneself feeds into one's reflexive or self-file, and each constitutes an epistemically rewarding information-gaining relation.

It will be helpful to specify the difference between self- and reflexive files, on the one hand, and demonstrative files, on the other. In contrast to other mental files, both self- and reflexive files are not used for spatiotemporal tracking purposes. In this respect, they differ, in particular, from demonstratives. A mental file grounding a demonstrative is a short-term information storage tool for tracking an object. The information stored in such a mental file may be the object's current location in the perceiver's egocentric frame of reference, where it was recently, the route it traveled from that location to its current one, and other such temporary, fluctuating information. Such information is critical for any tracking mechanism (Peacocke, 2014, pp. 27f). In the case of demonstratives, the enabling and information-gaining ER relation are each the relation of attention.

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[22] For the notion of self-file, see also García-Carpintero (2013) and Peacocke (2014).

Since we are the center of our egocentric frame of reference, we need not track ourselves spatially or temporally.[23] Consequently, a reflexive file is not a demonstrative concept. A different way of expressing the same point is that—barring unusual circumstances—we do not refer to ourselves via perception. Of course, I can look at my arm and refer to it and, so, refer to a part of my body via perception. Similarly, if Sam went for a run and then, after getting home, looks at the route she ran on her running app, she is tracking herself via perception. But this is not how we relate to ourselves from our subjective perspective.

Reformulated in terms of Pylyshyn's view of mental files, the point is that reflexive files do not include so-called fingers of instantiations (FINSTS), that is, subpersonal pointers that allow perceivers to keep track of objects in their environment over time. According to Pylyshyn, we employ FINSTS when we track objects. Reflexive and self-files differ from other mental files insofar as they do not include FINSTS. After all, since an individual constitutes the center of her egocentric frame of reference, she does not need to keep track of her spatiotemporal location within her egocentric frame of reference.

An objection waiting in the wings is that while a reflexive file is not used for spatial tracking tasks, an individual can update it over time. Does this imply that a reflexive file is used for temporal tracking tasks? In response, it is crucial to distinguish updating from tracking. By updating our reflexive file, we can compare old versions of ourselves with our current version. However, temporal updating happens neither by employing a demonstrative nor via tracking.

Insofar as a reflexive file is not used for tracking purposes, it is akin to the indexicals HERE and NOW. As we do not need to track ourselves, we do not need to track the here and now. After all, it is immediately given that we are wherever we happen to be and that at any given time, it is currently now. So, in this respect, the concepts HERE, NOW, and I are alike.

A second way these indexicals are alike and distinct from demonstratives is that HERE, NOW, and I do not require an information-gaining relation to the environment. One cannot employ a demonstrative successfully without information flowing from the demonstrated object to the employer of the demonstrative. Consequently, one cannot employ a demonstrative successfully in cases of sensory deprivation. The same is not true of HERE, NOW, and I. Since no information from

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[23] For discussion, see Peacocke (2014, pp. 15-8).

the environment is needed to refer successfully to one's current spatiotemporal location with HERE and NOW and to refer to oneself with I, these indexicals can be employed successfully even in cases of sensory deprivation. For example, gaining information about oneself through memory, introspection, or prorioception does not require an ER relation to the environment.

While HERE, NOW, and I are similar in these two respects, there are significant differences. One is that HERE and NOW are famously vague. When I say, "Ezra is here," HERE can refer to the room we are in, the city, or even the continent. Similarly, NOW can refer to a second, a day, a year, or an epoch. While the first-person pronoun is not vague in this sense, it is more similar to HERE and NOW than orthodoxy has it.

Everyone agrees that the first-person pronoun refers to different individuals when uttered by distinct individuals. I argue that it is like HERE and NOW in that its reference can change from moment to moment, even when uttered by the same person. The reference of HERE can change as my location changes. The reference of NOW can change as time passes. If the above argument holds, the reference of I can change even when uttered by the same individual. It can refer to an agent, the bearer of thought, the bearer of perception, or a body, to name just a few options.

4.3 The reference and meaning of a reflexive file

To develop the idea that a reflexive file has multiple possible referents, consider the conditions under which mental files are merged or divided. Mental files can be merged if the subject realizes that two mental files have the same reference. To illustrate, consider a situation in which you try to catch a moth in your kitchen (Pagin, 2013, p. 140). You falsely believe that there are two moths. So, the relevant subpersonal system opens two mental files allowing you to track what is— unbeknownst to you—just one moth.[24] Once you realize there is just one moth, the files are merged.

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[24] How the relevant subpersonal system is identified will depend on theoretical assumptions and empirical details. It could be the perceptual system or one of its subsystems.

Similarly, to take an even more famous example: when an individual realizes that HESPERUS and PHOSPHORUS each refer to Venus, she may merge her Hesperus- and Phosphorus-files.[25]

The opposite holds as well: a mental file can be divided if the subject realizes that a mental file has two referents. To illustrate, take a cat chasing what she takes to be just one mouse. When she starts the hunt, her perceptual system opens one file. Unbeknownst to her, there are, in fact, two mice, and she is sometimes chasing the one and sometimes, the other. At some point, she notices that there are two mice. When she does, her mental file is split into two, one for each mouse. So, ultimately, she has two mental files.

To take a human example, consider meeting Sam at a party. Unbeknownst to you, Sam has an identical twin, Ram. Sam and Ram are not only identical twins, on this particular day, they are dressed exactly alike. Over the course of the evening, you sometimes talk to Sam and sometimes to Ram, but you believe you are talking only to Sam. So, you have one mental file to which you add information about both Sam and Ram. The next day, you realize your mistake and divide your Sam-file into one for only Sam and one for Ram.

These cases show that even on the orthodox understanding of mental files, there will be cases in which a mental file has more than one referent. Thus, even by the lights of the orthodox view, the paradigm that a mental file has just one referent does not stand the test of scrutiny. This sets the stage for polysemous mental files.

A subject who possesses a polysemous mental file M will have one mental file despite M having two referents, perhaps because she never realized that the file has two referents, or because it is attractive to retain one file even after having registered its lexical ambiguity. Even once we realize that LUNCH is polysemous, we are not inclined to divide the concept into one that refers to food and another that refers to an event. After all, LUNCH refers to a food-based event.

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[25] It is important to note that a simple merging model does not explain the fact that after merging, we no longer have any representation of the fact that we once took Hesperus and Phosphorus to be distinct objects (Fine, 2007). Yet after merging, we retain knowledge that we used to believe they were distinct objects. I am grateful to an anonymous referee for pressing me on this issue. The important point here is that files can be merged and divided and that on the traditional view of mental files, there can be cases in which a mental file, at least temporarily, has more than one reference.

Having shown that a mental file can have more than one referent, we need only show that there may be reasons not to divide a mental file after discovering that it has multiple referents. The concepts LUNCH and I differ from the case in which a subject takes herself to be tracking one object when, unbeknownst to her, she is, in fact, tracking two. After all, in the case of a demonstrative file, one will divide the file after realizing that one is tracking two objects with one file. For both the concepts LUNCH and I, there are good reasons not to divide the concept, even after having realized that each has multiple referents. More generally, it can be useful not to divide concepts and mental files beyond necessity. As I will explain shortly, while the reflexive file could be divided, it is useful to keep the file intact.

But first, how should we analyze the referential differences between activations of the same reflexive file? A reflexive file—and mental files, more generally—can be understood as containing subfiles: one subfile of a reflexive file refers to a body and contains information about that body; another subfile refers to an agent and contains information about that agent; yet another refers to a bearer of emotions and contains information about the bearer of emotions, and so forth.

When an individual activates her reflexive file, not all subfiles need to be activated. Take a file that contains subfile A and subfile B. At time t_1, I activate the file and access only A. At time t_2, I activate the file and access only B, *ceteris paribus*. Is there a difference in my mental state at t_1 and t_2? There must be. After all, I accessed only A at t_1 and only B at t_2. What is the difference? The mental state in which A is accessed differs from that in which B is accessed since the referents of the two mental states differs. This difference in referents is grounded in a difference in referents between subfile A and subfile B. In this way, it can be explained that what constitutes the center of an individual's egocentric frame of reference may change between different *de se* mental states. It can be an agent, a bearer of thoughts, or a bearer of emotions, to name just a few.

A question waiting in the wings is whether the first-person concept is singular or general. General concepts refer to objects or properties of a particular type. To illustrate, my concept HORSE allows me to refer to any horse. Similarly, my concept RED allows me to refer to any red surface. By contrast, a singular concept refers to just one object. On the polysemous view of *de se* thoughts, the first-person concept is unusual insofar as it does not neatly fit either of those two categories of concepts. As I argue, it does not refer to just one object. However, neither does it refer to objects

of a particular type. Thus, as is typical for polysemous concepts, it is neither a singular nor a general concept.[26]

Recognizing that the first-person concept is polysemous allows one to acknowledge that in each of the five thoughts mentioned earlier, the word "I" has a different referent while respecting that its meaning is stable. Thus, one can acknowledge that "I" can refer to a body as it does in "I have a rash on my arm," the bearer of an emotion as it does in "I am anxious," or the bearer of perception as it does in "I see an apple," and so forth.

"A stark example of the polysemy of "I" is its use when referring to avatars. Consider someone who is playing a video game. Let's call him Ezra. If Ezra shouts, "I just died!" while playing a video game, the first-person pronoun refers to his avatar. Now, in the avatar case, one could reasonably argue that the first-person pronoun is used metaphorically. The same appeal to metaphor, however, cannot be made to explain away the change in reference between "I am anxious," "I am a student," and "I see an apple."

How can we specify what is common between *de se* thoughts of one individual? In activating a subfile, the reflexive file in which it is contained is activated. To illustrate, consider again a reflexive file that contains subfile A and subfile B. At time t_1, I open the file and activate A. At time t_2, I open the file and activate B, *ceteris paribus*. My mental state at t_1 and t_2 are each constituted by activating my reflexive file. More generally, what is constant across various employments of the first-person concept (and its nonconceptual analogs) is the activation of the reflexive file.

We can understand activating a mental file as employing the correlated mental capacity.[27] On this view, activating our reflexive file would be to employ our capacity for reflexivity. Further, employing the capacity can be understood as constituting the relevant mental content. If two mental states are generated by employing the same capacity, the mental states will have the same content. Since we have just one reflexive capacity, there is stability in the reflexive capacity employed and the reflexive file activated. Consequently, there is stability in meaning. While the

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[26] For a discussion of this issue, see Liebesman and Magidor (2024).

[27] For a detailed defense of this way of understanding mental files in terms of capacities and capacities as constituting mental content, see Schellenberg (2018).

reflexive file could be divided, it is useful to keep the file intact. After all, each activation of the file involves the employment of the individual's reflexive capacity. Thus, all activations of the reflexive file have a common ground.

So, the five thoughts above have in common that each is constituted by employing the individual's reflexive capacity, thereby activating the individual's reflexive file. Consequently, they manifest stability in meaning. Moreover, the stableness in meaning explains why we take this inference to be valid:

> I am F.
> I am G.
> I am F and G.

Similarly, we take the following inference to be valid despite "lunch" referring to food in the first sentence and to an event in the second.

> Lunch is tasty.
> Lunch is going on forever.
> Lunch is tasty and going on forever.

Insofar as any *de se* thought expressed by the same individual is constituted by her employing her reflexive capacity, a reflexive file underpins the fact that we have just one first-person concept that we use in different situations and contexts.

Now, one could object that the view developed entails that the body, the agent, the thinker, and other possible referents of the first-person concept are co-located objects. So, one could object that it entails that there is a plurality of objects that happen to coincide in one place at the same time and that differ in key properties. In response, the view developed indeed entails this metaphysical commitment. One could argue that it is a more problematic commitment than the metaphysical commitments of the *de se* traditionalist. That may be so, but the point was to analyze the referents of first-person thoughts, not to develop a view with minimal metaphysical commitments.

More importantly, while the metaphysical commitments are no doubt substantial, they avoid arbitrariness: there is no need to distinguish between those modal profiles that correspond to objects and those that do not, as they all equally exist.[28] The point here parallels the plenitudinous analysis of events, that is, the view that there is a multitude of events that coincide in their spatiotemporal location and that differ in their key properties (Lewis, 1986). It would be arbitrary to pick one of these events as the core event. For analogous reasons, the view I am putting forward avoids the arbitrariness of picking one object, say the bearer of the thought, as the core object.

Having just one reflexive capacity and correlated reflexive file helps explain that we have an illusion of having a self despite the many possible anchors of an individual's first-person thoughts. As I argued, in every *de se* mental state, we employ our capacity for reflexivity. Articulated in terms of mental files, the idea is that our reflexive file is activated in each first-person thought. This provides continuity between different first-person thoughts, providing ground for the illusion of having a self. While it can be understood as grounding the *sense* of having a self, having the capacity for reflexivity does not ground the *existence* of a self. As cases of illusion show, how things seem to us need not be how they are. In short, while we have a strong sense of having a self and perhaps even of having a unified self, the fact that it seems that way does not entail the existence of a self, let alone a unified self. This appearance-reality distinction holds not just for perception but also for cognition. Both perception and cognition are subject to bias and distortion effects that can lead to an appearance-reality chasm. The *de se* traditionalist could retort that while there is such an appearance-reality chasm in general, the self is unique insofar as the directness by which we gain knowledge about ourselves entails that there is no information processing that could lead to an appearance-reality chasm. In response, we can all acknowledge that self-knowledge is unique in that the subject-object structure of other forms of knowledge does not hold: the object of the knowledge is the subject who is gaining the knowledge. However, while grammatically, the object of the knowledge is the subject with the relevant knowledge, this does not entail a unity of this subject.

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[28] For a defense of this view, see Bennett (2004). For discussion of plenitudinous views of objects, see also Leslie (2011), Spencer (2019), Russell (2020), and Fairchild (2022).

More importantly, it does not entail that the subject's understanding of herself is immune to an appearance-reality chasm. If the argument that self-knowledge is allegedly immune to an appearance-reality chasm is based on the idea that there is an immediacy to awareness of the self such that the appearance-reality chasm manifest in perception and cognition could not arise, then the same would hold for pain. After all, there is a similar immediacy to pain experience. However, pain experience is famously subject to illusions. Indeed, we can even experience pain in limbs we do not possess. Similarly, we can feel angry when, in fact, we are hungry and vice versa.

5. CONCLUSION

To conclude, I aim to have cast doubt on the orthodoxy that the first-person concept has a stable referent when employed by the same individual. It is not nearly as clear as traditionally assumed what the anchor of a first-person thought is. If my argument has any weight, then the *de se* traditionalist needs an argument for the assumption that an agent forms a unity with the bearer of perception, the bearer of emotion, the bearer of thoughts that serves as the anchor of the relevant individual's *de se* thoughts.

I argued that the first-person concept (and its nonconceptual analogs) is polysemous and developed this idea in terms of polysemous mental files, specifically polysemous reflexive files. As its name suggests, the functional role of a reflexive file is to manifest reflexivity. An individual's reflexive file is activated only if she exercises her capacity for reflexivity. Recognizing that the first-person concept is polysemous allows one to acknowledge that it is akin to the concepts HERE and NOW in that its reference can change from moment to moment, even when uttered by the same individual. While the reference of HERE changes as my location changes and the reference of NOW changes as time passes, the reference of the first-person pronoun changes as the anchor of an individual's perspective changes. Analyzing the first-person pronoun as a polysemous reflexive file explains that the first-person concept can have different references while respecting its stability in meaning. This stability not only grounds anaphoric relations between the different possible referents of the first-person pronoun, it helps explain the illusion of self.

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