

# Pregnant Thinkers

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**Abstract:** Do pregnant mothers have fetuses as parts? According to the “parthood view” they do, while according to the “containment view” they don’t. This paper raises a novel puzzle about pregnancy: if mothers have their fetuses as parts, then wherever there is a pregnant mother, there is also a smaller thinking being that has every part of the mother except for those that overlap with the fetus. This problem resembles a familiar overpopulation puzzle from the personal identity literature, known as the “Thinking Parts Problem”, but it’s not merely a special case of that problem. Rather, the fact that late-term fetuses have a mental life of their own makes the Problem of Pregnant Thinkers, as I will call it, a *sui generis* and especially recalcitrant problem.

**Keywords:** fetuses, first-person thought, pregnancy, personal identity, too many thinkers,

## 1. Introduction

Do pregnant mothers have the fetuses they are pregnant with as parts? Lately, this question has received intense scrutiny. As Kingma notes, until recently most metaphysically oriented discussions of pregnancy have focused exclusively on the fetus, with little attention to the mother and the relation between the two (2018, 2019). Moreover, Kingma also observes that it’s routinely assumed that fetuses are *located inside* but *aren’t parts of* the pregnant mother (she calls this “the containment view”).<sup>1</sup> As she points out, however, the containment view is far from obvious, and she marshals several arguments in favor of her preferred rival conception, the parthood view.<sup>2, 3</sup>

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<sup>1</sup> For the containment view, see Smith and Brogaard 2003, Howsepian 2008 and Oderberg 2008: 266.

<sup>2</sup> It’s worth noting that the parthood view has also been asserted without argument in parts of the literature, especially by advocates of feminist approaches to abortion (see, e.g., Rothman 1989: 157 and Purdy 1990: 273).

<sup>3</sup> There are at least two options beside the parthood and containment views that Kingma doesn’t discuss. One is the “proper overlap view”, according to which mothers have some but not all parts of their fetuses as proper parts (Simons 1987: 12; for a detailed defense, see Geddes 2023). Since according to this view the fetus’s consciousness-containing parts are among those that the mother doesn’t have, from the point of view of the puzzle I shall develop the proper

Here, I have little to say about the extant arguments for these competing metaphysical accounts of pregnancy. Instead, in the next section I will raise a puzzle about the mereological relations between mothers and their fetuses that arises out of the mother's status as a thinking subject. The problem, in a nutshell, is that if mothers have their fetuses as parts, then a kind of overpopulation problem looms: wherever there is a pregnant mother with a fetus as a proper part, there is also a smaller thinking being that has every part of the mother except for those that overlap with the fetus. This problem (which I will call the Problem of Pregnant Thinkers) resembles the familiar "Thinking Parts Problem" from the personal identity literature: what prevents my large proper parts (for example the one that includes all of me except for my left index finger) from being thinkers, and how can I know that I'm not one of these parts? However, I will argue that thanks to the fact that late-term fetuses have a mental life of their own, the Problem of Pregnant Thinkers is more than just a special case of the Thinking Parts Problem. In section 3 I will survey some possible solutions that are inspired by similar solutions to that problem but turn out to be less attractive when applied to the Problem of Pregnant Thinkers. I will then tentatively suggest as my preferred solution a kind of conventionalism about the metaphysics of pregnancy, according to which pregnant mothers have a say in determining whether they have the fetus as a part.

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overlap view is similar to the containment view. A fourth possibility is what we could call the "reverse parthood" view, according to which it is the mother that is a proper part of the fetus, rather than the other way round (Yancey 2020). Since plausibly if  $x$  is a part of  $y$  then every spatial region filled by  $x$  is also filled by  $y$ , the best sense I can make of this view is that according to it fetuses are much larger than usually thought, including large pieces of adult human tissue. While Yancey's neo-Aristotelian defense of the reverse parthood view is interesting, it seems to me that this view exacerbates rather than solves the problem I develop in the paper (to be clear, Yancey doesn't develop the reverse parthood view with this problem in mind).

Before laying out the puzzle, a few words of clarification are in order about my intended target. First, I intend to focus on pregnant *thinkers*, by which I mean entities that are pregnant and are the sorts of things that can have mental states. While pregnant thinkers are plausibly identical to persons, it's an open question whether they are also identical to pregnant human organisms or are constituted by or temporal parts of human organisms. Thus a pregnant thinker is identical to what Kingma calls a "gravida" on animalist metaphysics of persons but might be distinct from the gravida on other views.<sup>4</sup> Similarly to Kingma, I intend to be neutral about the relation between pregnant thinkers and pregnant human organisms. But unlike her, I'm interested in the former.

Second, it will be useful to have two separate expressions for pregnant thinkers that have fetuses as parts and pregnant thinkers that don't. I will refer to the former as *inclusive* and to the latter as *exclusive* pregnant thinkers. The question about the mereological relation between mothers and fetuses is often framed as whether the fetus is part of or merely contained by "the" mother, where the definite article suggests that pregnancy doesn't involve *both* an inclusive and an exclusive thinker. By contrast, I will treat the question of whether only inclusive, only exclusive or both types of pregnant thinkers exist as open.<sup>5</sup> The two major contenders that Kingma considers, the parthood view and the containment view, already presuppose that at least one type of pregnant entity (exclusive pregnant thinkers on the parthood view and inclusive pregnant thinkers on the

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<sup>4</sup> Advocates of animalism, the view that (perhaps absent highly unusual cases) human persons are identical to human organisms, include Olson (1997, 2003), Madden (2016), and Bailey and van Elswyk (2021). Opponents include Noonan (1998), Hudson (2007), Duncan (2021), and many others.

<sup>5</sup> In subsequent work, Kingma (2020b) also notes that there are two candidates for being "the" pregnant mammalian organism. My terminology is similar to the one she uses there: she distinguishes the organism "inclusive of" the fetus from the organism "exclusive of" it. For the related question of how to individuate pregnant organisms, see also Grose 2020.

containment view) doesn't exist. This is an option that I will consider in section 3.1, but which we cannot take for granted at this early stage of our inquiry.

Third, when it comes to late-term fetuses, what I'm interested in is their ability to be the subjects of conscious states. Late-term fetuses have neither propositional attitudes nor the rich, qualitatively differentiated mental lives of a healthy adult. But they aren't altogether devoid of mentality. They are sentient, they are subjects of phenomenal experience (there is a way it is like to be a late-term fetus), and they can experience light, pressure, sounds, pain, and so on. To emphasize this capacity of late-term fetuses, I will often refer to them as "fetal experiencers". As in the case of pregnant thinkers, I wish to leave open the relation between a fetal experiencer and the biological organism ('foster', to use a term introduced into the literature by Smith and Brogaard 2003) with which it coincides. I cannot define what makes a fetal experiencer "late-term", but any developmental stage that is late enough to support some kind of mental life counts as "late" in the relevant sense. Thus my main focus is different from that of much of the literature on the metaphysics of pregnancy and abortion, where human animals take center stage (often because animalism is tacitly presupposed). Yet, no matter what one's preferred ontology of persons is, few can remain indifferent to the puzzle I will develop in the next section.

## **2. The Problem of Pregnant Thinkers**

Take a pregnant thinker, Peg, who is pregnant with a fetal experiencer, Fred. It seems that 'Peg' could refer to either of two things: something that includes Fred as a proper part (call it 'Peg+') or something that merely spatially contains Fred but doesn't have Fred as a proper part (call it 'Peg-'). Then we have a puzzle. For now it seems that there are *two* pregnant thinkers: Peg+, the inclusive pregnant thinker, who has Fred as a proper part; and Peg-, who has every part of Peg+

that doesn't overlap with Fred. Moreover, Peg- seems to have all the necessary parts to count as a thinker in her own right. She has a brain and nervous system; indeed, *the same* brain and nervous system that Peg+ has. So if Peg+ is a thinker, Peg- has an equally good claim also to count as a thinker, and *vice versa*.<sup>6</sup> Whichever of Peg+ or Peg- is the referent of 'Peg', this doesn't undermine the existence of the other candidate.

But if we grant that both Peg+ and Peg- are thinkers, we quickly find ourselves with seemingly insurmountable difficulties. To begin with, which candidate does Peg think of when she thinks of herself, and what makes it the case that it's that candidate rather than the other? (I continue to write 'Peg' rather than 'Peg+' or 'Peg-' when I wish to stay neutral about whether proper names and pronouns refer to inclusive or exclusive pregnant thinkers.) Suppose Peg+ believes herself to be an inclusive pregnant thinker. Having the same brain, Peg- cannot but *also* think herself to be an inclusive pregnant thinker. The problem is that this belief is false of Peg-, who doesn't have Fred as a proper part. Analogous remarks apply to those of Peg's *de se* beliefs that are true of Peg- but false of Peg+. Our question, then, is twofold: what makes it the case that when thinking 'I', Peg refers to one candidate rather than the other? And how can Peg know that when referring to herself, she refers to that candidate rather than the other? Call this two-faced metaphysical-epistemological puzzle the *Problem of Pregnant Thinkers*.

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<sup>6</sup> Geddes's (2023) proper overlap view also offers an intermediate option: perhaps Peg has some but not all of Fred as proper parts. In this case, the most plausible candidates for being parts of both Peg and Fred are the placenta, the umbilical cord, and parts of these – but importantly, not Fred's brain. We could call the entity ('Peg-p') that has only these parts of Fred and contains the rest a "partially exclusive thinker". As we will see, what gives the problem its distinctive status is that Peg+ has the consciousness-involving parts of Fred. This is false of Peg-p as much as it's false of Peg-; and so, with respect to the problem I'm raising, partially exclusive thinkers are on a par with exclusive thinkers.

Readers well versed in the literature on personal ontology will have noticed by now the close similarity between the Problem of Pregnant Thinkers and another familiar puzzle about persons and their parts. The puzzle, which (following Madden 2016) I will refer to it as the Thinking Parts Problem, concerns thinkers and those of their proper parts that are large enough to contain everything needed to sustain the thinker’s mental life.<sup>7</sup> For example, if my “finger-complement” (the large proper part of me that has all of me minus my left index finger) is a thinker, then what makes it the case and how can I know that I am an ordinary human being and not a finger-complement? On the face of it, the Problem of Pregnant Thinkers is just a special case of the Problem of Thinking Parts.

However, I believe that appearances are misleading here, and the problem is in fact more serious and more difficult to solve than the Problem of Thinking Parts. If the description I gave above is correct, inclusive pregnant thinkers have (in some sense of the word ‘have’, to which I will return in section 3.3) mental states that belong to disunified streams of consciousness. They have a regular stream of experiences and thoughts that we normally attribute to healthy adults. But they also have a second stream of simpler experiences (although not thoughts), of the sort we normally attribute to late-stage fetuses. We can call these the *adult stream* and the *fetal stream*, respectively. Unlike in the Thinking Parts Problem, inclusive and exclusive thinkers differ in their mental states, although the fetal stream of an inclusive thinker is inaccessible to the adult stream of that thinker. If you think you are an inclusive pregnant thinker, you have a second stream of consciousness that is inaccessible to you, and things look to you exactly as they would if you lacked that stream. But

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<sup>7</sup> See, for example, Olson 1995, Merricks 1998, Burke 2003, Zimmerman 2003, Kovacs 2010, 2016, Sutton 2014, Madden 2016, and Tzinman 2021.

if you think you are an exclusive pregnant thinker, then again things look to you exactly as they would if you had a second, fetal stream of consciousness, as do inclusive pregnant thinkers.

The existence of a candidate thinker with a divided mind makes the Problem of Pregnant less akin to the Thinking Parts Problem and more to *bona fide* cases of an entity with a divided mental life, for example split brains and certain types of conjoined twinning.<sup>8</sup> This makes the Problem of Pregnant Thinkers more than just a special case of the Thinking Parts Problem. One natural reaction to dicephalic twins (conjoined twins fused below the neck and sharing some, though not all, of their organs) is that they are two persons or thinkers hosted by one organism. Of course, not everyone accepts this interpretation: most animalists think that dicephalus involves only one organism or that it involves two people. However, on no ontology of persons is it intuitive that the mereological fusion of two dicephalic twins is a thinker in its own right; this is at best something we might be forced to swallow as a result of antecedent theoretical commitments.<sup>9</sup>

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<sup>8</sup> Perhaps the type of conjoined twinning that is most clearly analogous to pregnancy is craniopagus parasiticus, which is naturally described as one organism with a head and a second (parasitic) head that grows out of the first head. McMahan and Campbell (2010) raise this case as a problem for animalism, since craniopagus parasiticus is most naturally understood as a case of one organism and two persons. On their view, persons are proper parts of organisms rather than identical them; thus, a person and his parasitic twin would seem to be proper parts of the same organism. The analogous view about pregnancy is that both the pregnant thinker and the fetal experiencer (even if the latter isn't a person or a thinker) are proper parts of a human organism. While this is a coherent view, it is incompatible with the parthood view of pregnancy.

<sup>9</sup> While split brains are often described, at least tentatively, as cases of a single thinker with a divided mind (Nagel 1979: Ch. 11 and Parfit 1984: 245–52), conjoined twins are commonly presented as one body or organism hosting two thinkers (see Koch 2006 and McMahan and Campbell 2010; for an animalist-friendly accounts that don't accept this diagnosis, see Blatti 2007 and Boyle 2020). However, *assuming* that a case of conjoined twinning involves a single thinker (and not merely an organism) with two centers of consciousness, that thinker must have a divided mind.

The catch, however, is that conjoined twins cases are rare: they involve developmental abnormalities or radical surgical intervention. It's one thing to accept that certain highly unusual scenarios raise epistemological puzzles about what we are; these scenarios never arise for most of us, and perhaps we should be prepared to accept that any metaphysical account of thinkers has some implausible consequences for some niche cases. By contrast, a very large share of all human thinkers (and most female human thinkers) are pregnant at some point in their lives. Thus, the Problem of Pregnant Thinkers threatens us with a real-life quandary about what we are referring to when we think 'I' that is not only widespread but a normal part of our species' reproduction.

Although the Problem of Pregnant Thinkers is a problem for everyone, it seems especially serious for views according to which when pregnant thinkers refer to themselves, they refer to inclusive pregnant thinkers. If (as I suggested) inclusive pregnant thinkers have a divided mentality that consists of an adult stream and a fetal stream, then exclusive pregnant thinkers are better candidates for being the referents of 'I' than inclusive ones, since they have a more unified mental life. Think of it this way: while the event of birth marks a significant biological change, there isn't much difference between the mental life of Peg+ shortly before she gives birth and the mental life of the mereological fusion of Peg and her newborn baby ('Pfed') shortly after the birth, assuming that such an entity exists (suppose Fred is put in an incubator immediately after birth so as to minimize his experiential discontinuity). Both Peg+ and Pfed have an adult brain with the mental states of a healthy adult, both contain a second center of consciousness with less complex mental

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Likewise, assuming that there are inclusive pregnant thinkers (and not just inclusive pregnant organisms), they *prima facie* appear to be instances of split mentality. Note that while conjoined twins are usually discussed in the context of animalist accounts of personal identity (to which they are often thought to pose a challenge), I consider the Problem of Pregnant Thinkers a *prima facie* problem for everyone.



states and an impoverished phenomenology, and in both cases the connection between the two sets of mental state is loose to nil. But nobody would try to argue that Pfed has a better claim to being the referent of Peg's *de se* thoughts than the mereological difference of Pfed and Fred (i.e., the entity virtually all of us would identify as Peg).

My goal with the foregoing discussion was not yet to defend any solution to the Problem of Pregnant Thinkers. Inclusive pregnant thinkers may threaten with divided consciousness, but that consideration is far from decisive, and we will see that exclusive pregnant thinkers raise problems of their own. For now, I'm content if I managed to convince you that the Problem of Pregnant Thinkers is serious and that it raises difficulties over and above the familiar ones associated with the Thinking Parts Problem.

### **3. Solutions to Problem of Pregnant Thinkers**

In the present section I will survey possible solutions to the Problem of Pregnant Thinkers. These solutions are largely inspired by analogous responses to the Problem of Thinking Parts. But as we will see, they are systematically less promising when recast as solutions to the Problem of Pregnant Thinkers. In the sub-sections to follow I will discuss eliminativist (3.1) and functional-teleological (3.2) solutions, approaches that distinguish between two ways of "having" a mental state (3.3), and thought-theoretic views (3.4). In the end I will suggest (though won't argue in detail) that the most promising approach is a version of this last strategy: a kind of conventionalism, according to which pregnant thinkers have a say in determining whether they are inclusive or exclusive thinkers. But this view, too, is costlier than the analogous solution to the Problem of Thinking Parts.

### 3.1. *Eliminativism*

Eliminativist approaches to the Problem of Pregnant Thinkers deny the existence of at least one of the entities that lead to the problem. Similar views are familiar from the literature on the Thinking Parts Problem<sup>10</sup>, but they come at a much steeper cost when applied to pregnant thinkers. We can distinguish two variants of the strategy: Exclusive Thinker and Inclusive Thinker Eliminativism.

*Exclusive Thinker Eliminativism* is the view that there are no exclusive thinkers. There is no such thing as the mereological difference of Peg+ and Fred. I find this view implausible. Eliminativists often reject the existence of things like finger-complements by denying the Principle of Arbitrary Undetached Parts (van Inwagen 1981). But there is nothing *arbitrary* about an exclusive pregnant thinker. There is a reasonably clear boundary between a pregnant organism and a fetus, clear enough that Smith and Brogaard (2003), for example, use it to argue for the containment view of pregnancy. Kingma rejects this argument; she also argues that there are several ways to draw the boundary between the foster and the gravida, none of them sharp enough to justify classifying the foster as a substance and as merely located inside rather than being a part of the gravida (2020a). But even if the boundary between the foster and the gravida is as elusive as Kingma claims, it still seems to be less arbitrary and more closely tracking a qualitative difference than the boundary between a finger and a finger-complement. Moreover, if inclusive pregnant thinkers have fetal mental states (a contentious claim that I will revisit in section 3.3), then exclusive pregnant thinkers possess more of the intuitive markers of personhood and are better candidates for being the referents of ‘I’ than inclusive ones.

*Inclusive Thinker Eliminativism* denies that there are inclusive thinkers. On this view, there is only Peg- and Fred, but there is no further entity, Peg+, that they compose. One major advantage

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<sup>10</sup> See, e.g., van Inwagen 1981 and Olson 1995.

of this view is that it accommodates the point I made earlier, namely, that exclusive thinkers are better candidates for personhood and for being the referents of *de se* thoughts than inclusive ones. If forced to choose, it looks preferable to purge inclusive rather than exclusive pregnant thinkers from our ontology.

However, this doesn't mean that the view is cost-free. It's one thing to say that intuition favors the containment view over the parthood view. It's a wholly different matter to contend that when a pregnant thinker stands on the scale, there is *no* composite thinking being with the weight shown by the scale. More importantly, inclusive thinker eliminativists still need to address the battery of arguments Kingma adduces against the containment view and in favor of the parthood view (2018, 2019). They have to argue either that those arguments fail or that they at best show that pregnant *human animals* have fetuses as proper parts, while pregnant thinkers are merely proper parts of pregnant human animals rather than identical to them. The first option is formidable but feasible; here, I lack space to explore its prospects.<sup>11</sup> The second option, however, raises more questions than it answers. If pregnant thinkers are proper parts of human organisms, then what are non-pregnant thinkers? They cannot also be proper parts of human organisms, since they lack the fetal complement that would prevent them from being *improper* parts of, i.e. identical to, human organisms. But the resulting picture, according to which some of us are human organisms while others are identical to them, seems oddly baroque and lacking in independent motivation. It may

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<sup>11</sup> Geddes (2023) makes an important first step in this direction when he argues that Kingma's arguments against the containment view at best support the disjunction of the parthood view and the proper overlap view.

yet turn out that we have no better option than Inclusive Thinker Eliminativism, but the solution doesn't seem satisfying enough to stop our search just yet.<sup>12</sup>

### 3.2. *Functional-teleological solutions*

Madden (2016a) calls a solution to the Thinking Parts Problem “psychological” if it contends that only one of the candidate thinkers (typically the “maximal” one that has the others as proper parts) is capable of thinking. But these solutions are fairly heterogeneous, and in the present section I will only discuss a certain subset of them (the views to be discussed in sections 3.3-4 can also be regarded as broadly “psychological”). Recently, Madden (2016a, b) proposed a solution whose starting point is that the function of various processes that take place in an organism is to coordinate the organism itself rather than its proper parts. We can buttress this intuition by considering certain counterfactual scenarios. If an organism's proper parts stopped coordinating some of the organism's parts while continuing to coordinate the organism itself, the organism would still be reproductively fit, capable of propagating its traits (the uncoordinated proper parts would no longer contribute to the organism's reproductive fitness). By contrast, if the parts were coordinating some of the proper parts of the organism but not the organism itself, the latter would be “utterly spasmodic and reproductively unfit” (2016a: 201). Madden uses this point to argue that there is a non-arbitrary basis on which to treat an entire human being, rather than some of its proper parts, as the subject of mental states and the referent of *de se* thoughts realized in it.

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<sup>12</sup> Of course, it's possible to respond by combining Inclusive Thinker Eliminativism with the view that we are brains or (more neutrally) minimal thinking entities (McMahan 2002, Parfit 2012). However, this view implies that there are no pregnant human organisms whatsoever, inclusive or exclusive – a steep price to pay. Moreover, it's not clear that the minimality principle on the basis of which the view identifies us with brains is well-supported (Bailey 2014).

For simplicity's sake, I will temporarily bracket the difference between human organisms (Madden's main focus) and thinkers and will assume, somewhat contentiously, that if a relevant functional claim holds for a human organism than it also holds for the thinker coinciding with it (where it's left open whether the organism is identical to the thinker). One might then try to use Madden's functionalist framework to solve the Problem of Pregnant Thinkers. But in doing so, we immediately face difficulty. In the case of human beings and their arbitrary thinking parts, there is no question of which entity is the target of teleologically describable functions (such as motoric coordination and reproductive fitness), since the organism itself is unambiguously a better candidate for realizing those functions than any of its proper parts. Things are different with pregnant thinkers, since different considerations pull us in opposite directions. As Kingma observes, a pregnant mother and her fetus often compete for resources and have contrary interests (2019: 627). This would seem to render the *gravida-minus-the-foster* (and accordingly the exclusive thinker) a better realizer of animal functions. On the other hand, the fetus's survival is crucial to reproductive success, and reproductive functions are among a pregnant organism's biological functions. This would favor the *gravida-with-the-foster* (and the inclusive thinker).

Kingma thinks that reproductive functions are of overwhelming importance here, whereas the competition for resources is of no significance as long as it's "suppressed by the unity of the organism" (2019: 627). Moreover, she points out, different sub-systems of the same organism also compete for resources. However, this hardly settles the matter, since *Peg-* is still a stronger candidate than *Peg+* for being the realizer of some other animal functions. To return to Madden's example of motoric coordination, this function plausibly operates on *Peg-* rather than *Peg+*, and it does so without making the organism "spasmodic". Thus, the choice of candidate to which the adult mental states should be assigned on the basis of functional integration is less clear cut

between Peg+ and Peg- than between an ordinary human organism and its finger-complement. Finally, it's also worth keeping in mind that the assumption I made in the previous paragraph, that the functional profile of a thinker goes in tandem with that of the organism that coincides with it, is very much debatable. The bottom line is that Madden's functionalist solution to the Problem of Pregnant Thinkers, even if defensible, is less compelling than in its original role, as a solution to the Thinking Parts Problem.

Tzinman (2021) has recently defended a close cousin of Madden's functionalist view, but she is less concerned with biological functions. Instead, she focuses on the representation functions that an entity needs to possess in order to be mentally endowed. Of a set of overlapping candidate thinkers, only one is targeted by the set of representation functions realized by those thinkers. Unlike Madden, Tzinman doesn't rely on evolutionary considerations to determine what the object of a set of representation functions is. Instead, she operates with a more general notion of what it takes for a function to be fulfilled and argues that in the case of human thinkers the proper target of representation functions is the representatum of the body schema. One upshot is that one can have a prosthetic limb as a body part in so far as one's body schema represents it as such. In a similar fashion, a Tzinman-style functionalist could maintain that a pregnant thinker has a fetus as a proper part in so far as her body schema represents the fetus as such, but not otherwise. In that case, it becomes a serious possibility that some pregnant thinkers' *de se* thoughts refer to inclusive, while others' to exclusive thinkers.

The main weakness of functional-teleological views, as far as I can see, is their failure to fully explain why mental endowment should require that a mentally endowed subject's functions (be they evolutionary or representational) must target that same mentally endowed subject. To put the point bluntly: why can't something be mentally endowed as a mere by-product of sharing enough

parts with a mentally endowed, causally-functionally integrated entity? Perhaps there is a convincing answer to this question, but I'm yet to see one. That being said, I have some sympathy for teleological views, especially for Tzinman's version. Moreover, as we will see, the idea that some pregnant thinkers' *de se* thoughts pick out inclusive while others' pick out exclusive thinkers is also preserved by the sort of thought-theoretic solution (3.4) that I ultimately favor.

### 3.3. "Containers" vs. "subjects" of thought

Burke (2003) maintains that thinkers are "maximal" and that their large proper parts aren't thinkers themselves. However, while the latter aren't subjects of mental states, they aren't devoid of mentality either; they are, as he puts it, "mere containers" of consciousness. Now, Burke's original goal with the distinction was to validate our pre-theoretical intuitions: *of course* our undetached heads aren't thinkers but thought containers at best. But it's unclear how the distinction applies to pregnant thinkers, since part of the problem in this case is that we don't have such clear-cut pre-theoretical intuitions; both inclusive and exclusive thinkers are reasonably good candidate referents of 'I'.

But perhaps the distinction between thinkers and thought containers can help us make progress on the Problem of Pregnant Thinkers in another way. Recall that in formulating the problem, I claimed that inclusive thinkers had the mental states of their fetuses. Perhaps this assumption was hasty: what I should have said was that they were *subjects* of their adult mental states but only *contained* fetal mental states. It does seem plausible, after all, that Peg+ is not a subject of Fred's mental states: she might feel nauseous and tired, but she doesn't experience the darkness and the muffled noises of the outside world through her own womb.

The problem is that the subject/container distinction at best allows us to say that Peg+ is a subject of no more than one stream of consciousness; it doesn't give us a principled basis on which to determine *which one*. We can highlight the problem by asking a question that might first seem bizarre: *why* is it the case that Peg+ is a subject of the adult mental states but merely contains the fetal ones, rather than the other way round? Why is it not the case that Peg+ has some fairly simple experiences, for example experiences of the darkness of the womb and the muffled noises of the outside world, and in addition contains the rich phenomenology of an adult thinker, albeit without having access to it? (Don't say: "because she has an adult nervous system." She also *has*, within the boundaries of her body, a fetal nervous system, yet she doesn't have fetal mental states – or so would the Burke-inspired response suggest.) My question doesn't concern the epistemic basis of such ascriptions of mentality. I find it obvious (like anyone else, I presume) that if Peg+ is a subject of only one stream of consciousness, then that is the adult stream. My question instead is what makes this the case; what metaphysically explains that it is so.

We can buttress this question by asking what's *incoherent* about the idea of a being with the same distribution of adult and fetal streams of consciousness as Peg+, which, however, is a subject of the fetal mental states and merely contains the adult ones. There seems to be no *a priori* barrier to our ability to make sense of a fetus with large appendices around its body that have the shape of an adult human being, and which hosts mental states that are inaccessible to the fetus. We can, for example, imagine a fetus in an incubator with tissue gradually growing around it, such that the tissue ultimately turns into the physical duplicate of an ordinary pregnant thinker. If such a scenario is coherent, the subject/container distinction doesn't by itself help us make progress on the problem we started with.



One natural response is to appeal to biology: Peg+ is a subject of adult but not fetal mental states because Fred's life and biological functions are dependent on Peg+'s in a way that Peg+'s aren't on Fred's. This may be true<sup>13</sup>, but it's unclear why we should accept that if the biological functioning of a thinker's proper part depends on that thinker, then the thinker is a subject of mental states realized outside that proper part and merely contains the mental states realized inside it. The cerebrum of a human organism is biologically dependent on that organism, but we wouldn't on that account say that an ordinary human organism merely contains the high-level mental states realized by its cerebrum. It's simply not clear why we should assume that the direction of functional-biological dependence tracks which mental states a thinker has as a subject and which ones it merely contains.

A second possible response is that ascribing only the adult states to an inclusive pregnant thinker makes better sense of her behavior than ascribing to her only the fetal states. Suppose, for example, that Peg+ drinks a glass of water. Her feeling of thirst and her desire to quench it explains her reaching for the glass, but no combination of fetal states does; this is why she is a subject of the adult states realized in her brain but not of the fetal states realized in Fred's brain.<sup>14</sup> To see what the problem is with this explanation, we need to focus more closely at what exactly it is that we are seeking to explain. The adult mental states of course explain the series of bodily movements that we would normally interpret as "Peg+'s behavior". But this just raises the question of which

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<sup>13</sup> However, Smith and Bogaard argue that the dependence is merely generic rather than specific (2003: 62), while according to Kingma, it is two-way functional interdependence (2019: 626, 631).

<sup>14</sup> Kovacs (2016: 1082–3) uses similar considerations about constitutive rationality to motivate his solution to the Thinking Parts Problem. Unlike in the case under discussion, however, that problem concerns candidates that exercise the same behavior.

bodily movements within the Peg+'s physical boundaries we interpret as *her* behavior. Why don't we count occasional kicking within the womb and other fetal movements? If our goal is to explain why of two sets of mental states realized within Peg+'s boundaries only one set is Peg+'s own, we cannot take it for granted that of two sets of bodily movements, only the one guided by adult mental states is properly described as Peg+'s behavior.

A third idea is that an inclusive pregnant thinker is a subject of adult but not fetal mental states because the former are more complex and sophisticated and thus more eligible to be attributed to her. This strategy does promise to provide a criterion which set of mental states should be attributed to a pregnant thinker, since mental complexity can be evaluated independently of the question of rational interpretation. Yet I don't find this solution satisfactory either. It's a contingent fact about inclusive pregnant thinkers that their adult states are more complex than the fetal states that they contain, and even in the actual world it's not always so. Suppose a pregnant thinker suffers serious brain injury and her mental life becomes so diminished that its complexity no longer exceeds that of the fetus (she ends up as a human vegetable). Should we then say that at that point she becomes the subject of the fetal experiences that are realized in her? I doubt that would-be advocates of the third response would want to say that. More generally, it's hard to see why a thinker's status as the subject of a set of mental states should be tied to the relative complexity of those states in comparison to some others that the thinker merely contains.

The foregoing discussion notwithstanding, I of course agree that it would be bizarre to attribute to Peg+ the fetal mental realized in her. My point is merely that it's surprisingly difficult to give a non-circular explanation of why this is so. Peg+ contains two disconnected sets of mental states. In most familiar instances of mental disunity, when we recognize a subject that hosts two sets of disconnected mental states (as is the case on some interpretations of split brains and certain types

of conjoined twinning), we don't posit a hierarchy between those states: we simply say that the subject's mental life is disunified. But then it's hard to avoid saying the same thing about Peg+, absent some reason to the contrary. The reasons I considered in the previous few paragraphs strike me as disappointingly inconclusive. This should motivate us to not rest content with Burke's (otherwise intuitive) subject/container distinction and to continue our quest for a more compelling solution to the Problem of Pregnant Thinkers.

### 3.4. *Thought-theoretic views*

"Thought-theoretic" solutions to the Thinking Parts Problem (to use Madden's terminology) mainly focus on the problem's epistemological aspect. They accept that all of the rival candidates think, but they contend that the mechanism of self-reference nonetheless ensures that we can know which one we are. To make this idea more concrete, I will focus on one recent version of this kind of solution, Kovacs's (2016) self-making view, and apply it to the Problem of Pregnant Thinkers.<sup>15</sup>

The self-making view is a thesis simultaneously about *de se* thought and *de se* language (as a reminder of this feature, in what follows I will move back and forth between talking about 'I'-thoughts and about the utterances that express them). It makes two major claims about *de se* reference. First, when a set of overlapping thinkers use the first-person pronoun 'I', they refer to numerically the same entity. This means that Kovacs borrows Noonan's (1998) Personal Pronoun Revisionism: contrary to received wisdom, not every user of the first-person pronoun 'I' uses that pronoun for itself; some use it for entities with which they overlap. Second, all of these overlapping

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<sup>15</sup> See also Kovacs 2020 for an application of the view to diachronic puzzles. Other philosophers who defended views in the vicinity include Johnston (1989), Braddon-Mitchell and West (2001), Miller (2004), and Zimmerman (2013). For a recent criticism of such views, see Longenecker 2022.

thinkers use ‘I’ for the best non-accidental candidate referent in their vicinity, i.e. the candidate that makes most of those candidates’ ‘I’-beliefs true such that those beliefs aren’t based on any ignorance or mistake about non-indexical truths (e.g. on hallucination, false beliefs about the external world, or some error of reasoning). The following example illuminates both central claims. Suppose I think that I have ten fingers. Since there is an entity in the vicinity of where this belief has been formed that has ten fingers, the belief isn’t based on non-indexical ignorance or error, and no other thought entertained in the same vicinity favors another candidate, all of the candidate thinkers here that think ‘I’ refer to a ten-fingered being (rather than, for example, a finger-complement with only nine fingers). This is why my belief that *I* am a ten-fingered being is a true belief about myself rather than a false belief about a nine-fingered being (albeit it’s a true belief that a nine-fingered being shares with me).

It is tempting, but wrong, to describe the self-making view as claiming that there is “no fact of the matter” regarding our boundaries. The reason it’s wrong is that the view doesn’t imply about any material object that *its* boundaries are mind-dependent. Rather, there is a plenitude of objects with mind-independent boundaries, and our attitudes help determine which of these objects qualify as us.

In this weaker sense, however, the self-making view does imply that we have a say in which things we have as parts (Kovacs cites people with Bodily Integrity Identity Disorder as beings who, according to the view, have fewer parts than usually assumed – they are literally “amputees entrapped in an intact body”, as some of them describe themselves). Accordingly, those who think that the mother’s perspective should be taken into consideration when theorizing about the metaphysics of pregnancy might welcome the self-making view as a particularly attractive solution to the Problem of Pregnant Thinkers: those who take themselves to be inclusive thinkers have the

fetus as a proper part, and the exclusive thinker inside them also thinks, not of itself but of the inclusive thinker, that *it* has the fetus as a proper part. Similarly, those who take themselves to be exclusive thinkers don't have the fetus as a proper part, and the inclusive thinker they are a part of also thinks with them, of the exclusive thinker, that *it* doesn't have the fetus as a proper part.<sup>16</sup>

I admit that I'm partial to the self-making view; I consider it (or at least something along similar lines) the best available solution to the Thinking Parts Problem. I also think that its plausibility as a solution to the Problem of Pregnant Thinkers is bolstered by the fact that the intuitions of most of us don't clearly favor either the containment or the parthood view. Moreover, it seems to me (though this is based entirely on anecdotal evidence) that pregnant mothers don't speak with one voice when it comes to the question of whether they have their fetus as a part. If the self-making view is correct, then both the parthood and the containment views are true of *some* pregnant thinkers, and each pregnant thinker is correct whether she intends to use 'I' for an inclusive or an exclusive pregnant thinker.

A number of potential concerns naturally arise at this point. What about pregnant mothers who don't have any view about whether they have the fetus as a proper part? What about those who don't even know that they are pregnant? Does the self-making view have anything to say about incapacitated mothers who aren't capable of having thoughts about themselves? These are important questions, but they aren't specific to the main topic of this paper: there are analogous cases that don't involve pregnancy. Self-making theorists need to be able to answer these questions, but those who wish to borrow the view in order to solve the Problem of Pregnant

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<sup>16</sup> Likewise for those who take themselves to be partially exclusive thinkers, i.e. those who think they have some but not all parts of the fetus they are pregnant with (although I suspect this is much less common than the other two attitudes). In short, Peg gets to decide whether her use of the word 'I' refers to Peg+, Peg- or Peg-p.

Thinkers can simply apply the answers that they give to general variants of these questions. I lack space for a thorough survey here; below, I will just briefly note how self-making theorists can approach these difficulties.

Incapacitation is not a problem for the self-making view, since as earlier noted, the view doesn't claim that mereological facts are in any way mind-dependent. The existence of a fetus-including and a fetus-excluding pregnant entity doesn't depend on whether the mother has any first-person thoughts. If she does, the self-making view helps select the referent of her 'I'-thoughts; if she doesn't, the question concerning the referent of her 'I'-thoughts doesn't even arise.

Nor is there a problem with ignorance of one's own pregnancy. First, the self-making view as formulated above already stipulates that only those *de se* beliefs contribute to reference fixing that aren't based on non-indexical ignorance or error. For example, if a thinker believes that she is becoming overweight only because she falsely believes that she isn't pregnant, then this belief doesn't count toward selecting the exclusive pregnant thinker as the referent of her *de se* beliefs. Second, and relatedly, a sophisticated version of the self-making view takes into consideration *all* of a thinker's *de se* beliefs when determining their best candidate referent, and thereby helps us choose between candidate referents even in the absence of explicit beliefs about one's parts or spatial boundaries. These beliefs include *de se* beliefs that entail certain propositions about what one is and counterfactual beliefs about possible scenarios.<sup>17</sup> Thus, even a thinker who is uncertain about her pregnancy status might have implicit counterfactual beliefs about what *would* be true of her had she been pregnant, and these beliefs could break the tie between the inclusive and the exclusive pregnant thinker.

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<sup>17</sup> Kovacs 2020: 352.

What if a thinker knows that she is pregnant but still doesn't have any view about whether she has the fetus as a proper part, nor does she (suppose) have other beliefs with implications for this question? First, I would argue that this is less common than might seem at first glance; even in cases of apparent indecision there is likely to be some counterfactual belief that can serve as a tiebreaker. Second, even if we grant that there are such scenarios, we can simply accept them as instances of referential indeterminacy. In this context it's worth reminding ourselves that the self-making view's main purpose is to explain why we aren't in massive, systematic *error* about ourselves and our spatiotemporal boundaries; why, for example, we aren't undetached heads who think themselves to be human beings. *Indeterminacy* is a wholly different issue, and it requires separate treatment.<sup>18</sup> Since unlike in the case of heads vs. intact human beings most of us have conflicting intuitions about the metaphysics of pregnancy, I don't see it as an especially outrageous consequence of the self-making view that pregnant thinkers who are undecided about whether they are inclusive or exclusive pregnant thinkers use 'I' indeterminately between these two candidates.

A different group of questions arises with pregnant thinkers who change their mind during the course of pregnancy; at one time they think they are inclusive pregnant thinkers, while at another time they think they are exclusive ones. There are different ways to treat such cases; Kovacs's (2020) diachronic extension of the self-making view recommends that we accept these cases as genuine cases of reference shift: at time t1 the mother's use of 'I' refers to an inclusive while at a later time t2 to an exclusive pregnant thinker.<sup>19</sup> This raises a version of what he calls the "problem of inconstant 'I'-beliefs": if a pregnant thinker at t1 thinks herself to be an inclusive pregnant

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<sup>18</sup> Kovacs 2016: 1079–80.

<sup>19</sup> Braddon-Mitchell and West (2001) also develop a diachronic conventionalist view that allows for fluctuation in what one's *de se* beliefs refer to over time.

thinker while at t2 thinks the thought, “at t1 I was an exclusive thinker”, which of these beliefs is true? One option (the one Kovacs recommends) is to combine the diachronic extension of the self-making view with a perdurantist metaphysic and claim that both of them are: there are really two overlapping pregnant thinkers in the story, and they both have true beliefs about themselves. Alternatively, one could adopt stage theory (according to which proper names and pronouns refer to momentary slices rather than four-dimensional sums thereof) and claim that when talking about her past self, the thinker at t2 refers to a temporal counterpart of herself.<sup>20</sup> And there are other options too. For example, endurantists about persistence could stipulate that the best candidate referent of a subject’s ‘I’-thought be determined over time rather than at a time, such that a change in one’s *de se* beliefs doesn’t instantly engender a reference shift.<sup>21</sup>

Unfortunately, there is an aspect to the Problem of Pregnant Thinkers that makes the self-making view as a solution to it more problematic than as a solution to the Thinking Parts Problem. The self-making view was originally designed to take care of overlapping thinkers that share the same mental states and one single center of consciousness. Kovacs is agnostic about the possibility of candidate thinkers that are the fusions of two mereologically disjoint thinkers (e.g. two ordinary people) and emphasizes that the self-making view is consistent with independent physical and psychological constraints on thinkerhood, for example that the fusion of two physically disjoint

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<sup>20</sup> Cf. Sider 2001, 2018.

<sup>21</sup> See Madden 2011 for a version of this strategy in a different context. Madden argues that “brain in the vat” cases are similar to externalist slow-switching scenarios, and that a while after removal, a detached cerebrum would continue to use ‘I’ to refer to the organism that hosted it because that organism was previously established as the best knowledge-maximizing assignment.



thinkers cannot be a thinker (2016: 1092–3). Perhaps the fusion of two physically connected but psychologically disconnected thinkers isn't a candidate for being a thinker, either.

Now, an inclusive pregnant thinker isn't the fusion of two psychologically disconnected *thinkers*, since fetuses don't think. Still, the mental states occurring in an inclusive pregnant thinker don't form a unity, which makes the application of the self-making view less obvious in the case of pregnant thinkers. Moreover, as I noted in section 2, it can be argued that its more unified mental life makes an exclusive pregnant thinker intrinsically more eligible to be the referent of 'I' than the inclusive thinker it is a proper part of. This consideration isn't decisive, but it shows (once again) that the Problem of Pregnant Thinkers is a tougher nut to crack than the Thinking Parts Problem.

#### **4. Conclusion**

My purpose in this paper has been to show that the Problem of Pregnant Thinkers is a serious and *sui generis* problem. It's more than just a special case of the Problem of Thinking Parts: certain moves that are available in response to that problem are implausible when applied to pregnant thinkers, while others remain applicable but significantly costlier. It's also worth noting that the setup of the Problem of Pregnant Thinkers is natural and intuitively compelling. It's much less intuitive to deny the existence of exclusive pregnant thinkers than of finger-complements; and it's considerably harder to deny that exclusive pregnant thinkers have what it takes to count as full-fledged thinkers than to do so in the case of undetached heads or brains. To my mind, this means that the Problem of Pregnant Thinkers lacks the feel of an artificial pseudo-problem, which is how (for better or worse) many outside metaphysics instinctively react to more *recherché* overpopulation puzzles.

In this regard, the problem is more akin to the metaphysical problems arising out of conjoined twinning, which have also begun to receive more attention lately because they are based on genuine medical possibilities rather than science fiction. However, there is an important difference between pregnancy and conjoined twinning. Certain kinds of conjoined twinning also give rise to epistemological problems about who one is. For example, Campbell and McMahan (2010) describe cephalophagic twins (roughly, those that appear to share one head and one center of consciousness but two bodies) as distinct thinkers that share their thinking parts. Arguably, a member of a hypothetical pair of cephalophagic conjoined twins (hypothetical, since no such twins are known to have reached the age at which they could have *de se* thoughts) cannot know which member he is, since the other member will think numerically the same thought. This problem could be dismissed on the basis that cephalophagus is extremely rare: it's no significant cost to a metaphysics of persons if it implies that in some unusual and not even clearly medically possible cases it could lead to ignorance about who one is; after all, self-knowledge isn't infallible.<sup>22</sup> But in contrast to conjoined twinning, pregnancy is extremely common. If pregnant thinkers cannot know who they are, this is not something that can be dismissed as a fringe scenario that exploits some rare developmental abnormality.

How should we go, then, about solving the Problem of Pregnant Thinkers? Every solution I was able to come up with has costs, and as I've been trying to show, these costs tend to be higher than in the case of the Thinking Parts Problem. My preferred solution is the self-making view, which also fits a more general epistemological-metaphysical framework for handling synchronic and diachronic overpopulation puzzles, possibly with an added restriction that makes exclusive

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<sup>22</sup> Hershenov (2013) dismisses a similar response. But his discussion focuses on conjoined twins that don't share all of their thinking parts, and in those cases the response does strike me as less plausible than in the case of cephalopagus.

pregnant thinkers more eligible to be thought of under the guise of ‘I’ (though about this latter bit I remain agnostic). My second choice would be Inclusive Thinker Eliminativism, whose main advantage is that it relies on a non-arbitrary difference between exclusive and inclusive thinkers: the former’s mental life is unified, whereas the latter’s consists of two separate streams of consciousness. In the absence of a good account of why inclusive pregnant thinkers aren’t subjects of the fetal states realized within their boundaries, which I was unable to find in section 3.3, Inclusive Thinker Eliminativism remains the best bet for those who seek to avoid overpopulation by reducing the number of pregnancies.

Other solutions to the Problem of Pregnant Thinkers may also be possible, including perhaps some that I haven’t discussed. For now, I’m content if I managed to persuade you that this is a serious and *sui generis* problem that we need to pay attention to in the metaphysics of pregnancy and personal ontology in general.<sup>23</sup>

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<sup>23</sup> [Acknowledgements removed.]

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