

# Collective *De Se* Thoughts and Centered Worlds<sup>\*</sup>

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*Ratio* (2014)<sup>†</sup>

## Abstract

Two lines of investigation into the nature of mental content have proceeded in parallel until now. The first looks at thoughts that are attributable to collectives, such as bands' beliefs and teams' desires. So far, philosophers who have written on collective belief, collective intentionality, etc. have primarily focused on third-personal attributions of thoughts to collectives. The second looks at *de se*, or self-locating, thoughts, such as beliefs and desires that are essentially about oneself. So far, philosophers who have written on the *de se* have primarily focused on *de se* thoughts of individuals.

This paper looks at where these two lines of investigations intersect: collective *de se* thoughts, such as bands' and teams' beliefs and desires that are essentially about themselves. There is a surprising problem at this intersection: the most prominent framework for modeling *de se* thoughts, the framework of centered worlds, cannot model a special class of collective *de se* thoughts. A brief survey of this problem's solution space shows that collective *de se* thoughts pose a new challenge for modeling mental content.

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<sup>\*</sup>Thanks to Salvatore Florio, Eric Guindon, Jason Konek, Sara Protasi, and (especially!) an anonymous referee for helpful criticisms and suggestions. I am grateful to Dustin Tucker for finely combing through the antepenultimate version.

<sup>†</sup>PENULTIMATE VERSION. For citation and reference, please see the definitive and final version in *Ratio* 27(1), pp. 17–31. doi: [10.1111/rati.12025](https://doi.org/10.1111/rati.12025).

Two lines of investigation into the nature of mental content have proceeded in parallel until now. The first looks at thoughts that are attributable to collectives, such as bands' beliefs and teams' desires. So far, philosophers who have written on collective belief, collective intentionality, etc. have primarily focused on third-personal attributions of thoughts to collectives. The second looks at *de se*, or self-locating, thoughts, such as beliefs and desires that are essentially about oneself. So far, philosophers who have written on the *de se* have primarily focused on *de se* thoughts of individuals.

A surprising problem arises when these two lines of investigation are brought together. Let me introduce the problem with an example:

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**Tour.** New Found Glory and International Superheroes of Hardcore are two bands on tour together. They are also made up of the same people: Jordan, Straightedge Chad, Steve, Ian, and Cyrus. International Superheroes of Hardcore has just finished performing and New Found Glory is performing next. New Found Glory believes <we are performing next> and International Superheroes of Hardcore does not.

New Found Glory's *de se* belief exemplifies a class of *de se* thoughts that are found in everyday situations. It is not uncommon to find distinct collectives who share the exact same individual members. It is also not uncommon for a *de se* thought to be true of one such collective but not the other.

Yet, despite being so common, *de se* thoughts of this sort present a new problem for some theories of mental content. Roughly, the **problem of collective *de se*** is that the most prominent framework for modeling *de se* thoughts—the framework of *centered worlds*—cannot model this special class of collective *de se* thoughts.

Here is the plan. §1 makes two conditional arguments for the existence of collective *de se* thoughts. §2 presents the framework of centered worlds for modeling linguistic and mental content. §3 uses the Tour scenario to show that the framework of centered worlds, combined with standard accounts of what centered worlds are, faces counter-intuitive consequences in modeling the special class of collective *de se* thoughts outlined earlier. §4 explores the conceptual space for evading the problem of collective *de se*, the costs of different options, and the implications of the problem for understanding the nature of mental content.

## 1 Collective *De Se* Thoughts

### 1.1 *De Se* Thoughts

Objects of intentional attitudes, such as belief and desire, are representations. Beliefs typically aim to represent the way the world is. For example, when I believe <pigs do not fly>, I locate my world as one in which pigs do not fly. However, beliefs do not always aim to represent the way the world is. Some of my beliefs aim to represent the way I am. These beliefs are *de se*, or self-locating, instead of *de dicto*, or world-locating.<sup>1</sup> For example, when I believe <my pants are on fire>, I locate myself as one of the individuals

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<sup>1</sup>The classics on the *de se* are Lewis (1979), Perry (1979), and Stalnaker (1981). For the most part, my presentation of *de se* thoughts follows Lewis's terms and characterizations.

whose pants are on fire.

The distinction between *de dicto* and *de se* is important theoretically and practically. With my *de se* belief, I am not merely representing *the world* as containing a person whose pants are on fire; instead, I am representing *myself* as being a person whose pants are on fire. More strikingly, a *de se* belief can make me do things, such as grabbing a fire extinguisher and turning it on myself, that a *de dicto* belief cannot. Indeed, the distinction between *de dicto* and *de se*—to be articulated further in §2—generalizes to other types of mental states, such as desires and imaginings. So, in order to have an easy way to talk about *de se* mental states of all kinds, let us call any combination of an intentional attitude and a *de se* content a ***de se* thought**.

## 1.2 Collective Thoughts

In theorizing about the *de se*, philosophers have drawn on numerous examples. Lewis (1979) talks about two gods, each of whom does not know who *he* is. Perry (1979) talks about an amnesiac lost in the Stanford Library who does not know where *here* is. Stalnaker (1981) talks about a guy just woken up in his car trunk who does not know when *now* is. Notably, all the examples involve *de se* thoughts of individuals.<sup>2</sup>

However, we do not seem to attribute thoughts only to individuals. Sentences that appear to attribute thoughts to collectives are prevalent in everyday talk. *New Found Glory believes pop punk is not dead. FC Barcelona wants to win La Liga. Apple plans to build a new headquarters.* Ordinary language ascriptions of beliefs, desires, and other intentional states to collectives suggest the possibility of **genuine collective thoughts**: thoughts that are attributable to collectives and cannot be straightforwardly reduced to collective members' thoughts.

In this paper, I will not argue that there indeed are genuine collective thoughts. Research programs on collective belief and collective intentionality are, as even proponents will acknowledge, still in their early stages.<sup>3</sup> Instead, my aim is only to show that *if* there are genuine collective *de se* thoughts, *then* the framework of centered worlds will have trouble modeling a special class of them.<sup>4</sup>

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Arguments for genuine collective thoughts typically involve apparent linguistic ascriptions and mental attributions of thoughts to collectives that are *third-personal*. I will instead focus on apparent linguistic ascriptions and mental attributions to collectives that are *first-personal*, such as New Found Glory's belief <we are performing next>, to show that two prominent arguments for genuine collective thoughts apply to collective *de se* thoughts as they do to collective *de dicto* thoughts. Hence, if these arguments show that there are genuine collective thoughts, then they also show that there are genuine collective *de se* thoughts.

<sup>2</sup>The focus on individuals in the *de se* literature continues to be prevalent today. For example, a survey on the semantics of *de se* attitude ascriptions simply characterizes *de se* attitudes as “thoughts one would characteristically express with a sentence containing the first-person pronoun *I* (*me*, *my*)” (Ninan 2010, 551). An exception is Holton (2014), which develops a novel objection to Lewis's account of the *de se* using “we” sentences.

<sup>3</sup>Tollefsen (2004) surveys extant arguments for and against genuine collective intentionality.

<sup>4</sup>I thank an anonymous referee for pressing me to clarify the scope of my overarching argument.

### 1.3 The Ordinary Language Argument

Start with the ordinary language argument, which says that apparent ordinary language ascriptions of thoughts to collectives serve as prima facie reasons for positing genuine collective thoughts. Standard formulations of this argument focus on third-personal ascriptions of thoughts to collectives.<sup>5</sup> For example, sentences such as “New Found Glory believes pop punk is not dead”, which are commonly found in music news and reviews, serve as prima facie reasons for attributing collective thoughts to bands.

The ordinary language argument applies to first-personal ascriptions as it does to third-personal ascriptions of thoughts to collectives. The former are no less prevalent than the latter. For example, sentences such as “we believe our latest record is our best” are as commonplace as they are boilerplate in interviews with bands. As such, ordinary language *self*-ascriptions of thoughts to collectives also serve as prima facie reasons for positing genuine *de se*, or self-locating, collective thoughts—as prima facie reasons for attributing genuine collective *de se* beliefs to bands like New Found Glory and International Superheroes of Hardcore.

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### 1.4 The Explanatory Non-Superfluosity Argument

Turn to the explanatory non-superfluosity argument, which says that another prima facie reason for positing genuine collective thoughts is that collective thoughts can do explanatory work that individual thoughts cannot.<sup>6</sup> Take our practice of moral and legal attributions in tobacco lawsuits as an example. Intentions attributed to tobacco companies explain why we hold the companies themselves responsible, in addition to holding their executives responsible. Furthermore, it seems possible to attribute intentions to tobacco companies while being ignorant of the executives’ intentions. Hence, the collective intentions attributed to tobacco companies appear to possess explanatory power that individual intentions attributed to tobacco companies’ executives lack.<sup>7</sup>

The explanatory non-superfluosity argument also applies to attributions of *de se* thoughts to collectives. For one illustration of the explanatory work that collective *de se* thoughts can do, we will examine the explanatory connection between collective *de se* beliefs and motivational force.<sup>8</sup>

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<sup>5</sup>Gilbert (1989) is the first to give an ordinary language argument for genuine collective thoughts. Despite brief mentions of “we” sentences, Gilbert centers her argument on third-personal ascriptions.

<sup>6</sup>I am simplifying the formulation of the explanatory non-superfluosity argument in Tollefsen (2002). Other formulations can be found in Gilbert (1989) and Pettit (2003).

<sup>7</sup>A common strategy for responding to this argument is to present a more complex reduction of tobacco companies’ intentions to tobacco companies’ executives’ thoughts. While I lack the space to discuss specific implementations of this response strategy, the strategy itself faces a serious problem. As Huebner (2008) argues, responses that appeal to complex reductions inevitably overgenerate. After all, individual intentional states are reducible in complex ways to individual neural states too. So such responses threaten to eliminate explanatory appeals to intentional states altogether. This problem of overgeneration can be placed in the broader context of debates about special scientific laws and explanatory ecumenicalism; see, for a small sample: Fodor (1991), Jackson and Pettit (1992), Lange (2002), and Potochnik (2010).

<sup>8</sup>In the same spirit, Wray (2006) argues that conceiving of collaborative research teams as subjects that are over and above their members helps to explain how collaborating scientists actually behave.

To set the stage, consider first the explanatory connection between an individual's *de se* beliefs and their motivational force on the individual's actions. For example, suppose that I see in a mirror a person whose pants are on fire. If I recognize that I am that person, then I will come to have the *de se* belief <my pants are on fire>, which in turn motivates me to grab a fire extinguisher and point it at myself. However, if I do not recognize that I am that person, then I will come to only have the *de dicto* belief <the person-in-the-mirror's pants are on fire>, which does not have the same motivational force. In this example, the individual *de se* belief <my pants are on fire> is crucial to explaining why I am motivated to grab a fire extinguisher and point it at *myself*.

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Collective *de se* beliefs exhibit the same explanatory connection to motivational force. Take the following example:

**Studio.** New Found Glory needs one more song to finish its new album. In the studio, Steve is working on the verse lyrics, Jordan is working on the chorus lyrics, Straightedge Chad is working on the guitar riffs, Ian is working on the bass lines, and Cyrus is working on the drumbeats. In a eureka moment, all the parts came together into a song. New Found Glory then comes to believe <we wrote a new song>. In turn, New Found Glory is motivated to finally release its new album.

In the Studio scenario, for the same reason as before, the collective *de se* belief <we wrote a new song> is crucial to explaining why New Found Glory is motivated to release its new album.

We can see the explanatory power of New Found Glory's *de se* belief from three different angles. First, note that none of the band members believes <we wrote a new song>. In this scenario, each of them wrote only a part of a song. So, at most, each of them has only the *de se* belief <I wrote part of a song>. The band members' individual *de se* beliefs cannot explain why New Found Glory is motivated to release its new album. Second, note that International Superheroes of Hardcore, which has the same exact members as New Found Glory, does not believe <we wrote a new song>. So New Found Glory's *de se* belief <we wrote a new song> cannot be straightforwardly reduced to individual band members' *de se* beliefs. Finally, note that the explanation given holds rather robustly. We can be completely ignorant of individual band members' beliefs, *de se* or otherwise, and still explain New Found Glory's motivation to release its new album by appealing to the collective *de se* belief <we wrote a new song>. The explanatory power exemplified provides a *prima facie* reason for attributing genuine collective *de se* beliefs to bands like New Found Glory and International Superheroes of Hardcore.

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## 1.5 Summary

I have shown that prominent arguments for positing genuine collective *de dicto* thoughts function equally as arguments for positing genuine collective *de se* thoughts. I have also shown that it is appropriate to attribute genuine collective thoughts to bands. So, in particular, we can take New Found Glory's *de se* belief in the Tour scenario to be an example of the special class of *de se* thoughts that raises the problem of collective *de se*. To give more background for developing this problem, we now turn to the most prominent framework for modeling *de se* thoughts: the framework of centered worlds.

## 2 Centered Worlds

In the framework of centered worlds, the object of a *de se* thought is a set of centered worlds. Taking a metaphor from Lewis (1979), a possible world is like a map and a centered world is like a map with an arrow pointing to a spot saying “you are here”. On a map, there are many spots that an arrow can point to. Within a possible world, there can be many points of view. A **centered world** is the combination of a possible world and a **center**, or a perspective within that possible world.

Consider again the *de se* belief <my pants are on fire>. When I believe <my pants are on fire>, I locate myself as one of the individuals whose pants are on fire. With this *de se* belief, I represent myself as distinct from the other, more fortunate, individuals of my world whose pants are not on fire. Modeling *de se* beliefs requires representational devices that can distinguish possibilities that are finer-grained than worlds, such as distinguishing myself from the other individuals of my world.

Centered worlds are such representational devices. Lewis’s example of the two gods is instructive, as an analogy:

[The two gods] inhabit a certain possible world, and they know exactly which world it is. Therefore they know every [*de dicto*] proposition that is true at their world. Insofar as knowledge is a propositional attitude, they are omniscient. Still I can imagine them to suffer ignorance: neither one knows which of the two he is. They are not exactly alike. One lives on top of the tallest mountain and throws down manna; the other lives on top of the coldest mountain and throws down thunderbolts. Neither one knows whether he lives on the tallest mountain or on the coldest mountain; nor whether he throws manna or thunderbolts. (Lewis 1979, 520–521)

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The two gods can locate their world amongst possible worlds but they cannot locate themselves amongst possible individuals in their world. They have all the *de dicto* knowledge but no *de se* knowledge.

The philosopher who has only possible worlds at her disposal finds herself in a predicament similar to the two gods.<sup>9</sup> Neither of the two gods know which perspective in the world they occupy, the thunderbolt-throwing god’s or the manna-throwing god’s. Similarly, with only the framework of possible worlds, the philosopher cannot theoretically account for different possibilities within the same world, such as the possibility that one is the thunderbolt-throwing god versus the possibility that one is the manna-throwing god. Since the two gods do not know which perspective in the world they occupy, they lack *de se* knowledge. Similarly, since the framework of possible worlds cannot distinguish different possibilities within the same world, the philosopher cannot model *de se* contents of intentional attitudes using only possible worlds.

The philosopher can escape her predicament with centered worlds.<sup>9</sup> Since centered worlds correspond to different perspectives within possible worlds, she can model *de*

<sup>9</sup>The framework of centered worlds is not the only tool with which the philosopher can escape her predicament. Perry (1979) and Stalnaker (1981) provide influential competing accounts of the *de se*. However, the framework of centered worlds remains the most prominent way of modeling the *de se* in contemporary philosophy and linguistics. Furthermore, as Liao (2012) documents, philosophers have found several new uses for centered worlds.

*se* contents of intentional attitudes using centered worlds. While possible worlds can model only *de dicto* thoughts but not *de se* thoughts, the converse is not true of centered worlds.<sup>10</sup> In the framework of centered worlds, *de dicto* thoughts are simply *de se* thoughts that involve locating oneself as a member of a world. For example, when I believe <pigs do not fly>, I am simply locating myself as one of the individuals who is a member of a world in which pigs do not fly.

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Formally, we can represent a centered world as an ordered set  $(w, c)$ . There are two standard accounts of what centered worlds are that differ on how they specify the center, or the  $c$  parameter in the formal apparatus.

Call the first the **spacetime account**.<sup>11</sup> On this account, each unique center can be picked out by spacetime coordinates, formally represented as  $(x, y, z, t)$ . Suppose for example David is located at the space-time coordinate  $(a, b, c, d)$  in the actual world @. His pants are on fire. When David has the *de se* belief <my pants are on fire>, the object of his belief is a set of centered worlds that includes  $(@, (a, b, c, d))$  because he is in fact one of the individuals whose pants are on fire. More concisely, we can say that his *de se* belief **selects** the centered world  $(@, (a, b, c, d))$ .

Call the second the **inhabitant account**.<sup>12</sup> On this account, each unique center can be picked out by the name of an inhabitant of a possible world and a temporal coordinate, formally represented as  $(i, t)$ . Suppose for example David is temporally located at time  $d$  in the actual world @. His pants are on fire. When David has the *de se* belief <my pants are on fire>, the object of his belief is a set of centered worlds that includes  $(@, (David, d))$  because he is in fact one of the individuals whose pants are on fire. His *de se* belief selects the centered world  $(@, (David, d))$ .

### 3 The Problem of Collective *De Se*

With the relevant background in place, I can now present the details of the problem of collective *de se*. Recall the initial setup. As a first approximation, the problem of collective *de se* is that the most prominent framework for modeling *de se* thoughts—the framework of centered worlds—cannot model a special class of collective *de se* thoughts. Each collective *de se* thought in this special class exhibits two features: (1) it is true of a collective  $C$  that shares the exact same individual members with at least one other collective, and (2) it is not true of at least one of those collectives that shares the exact same individual members with  $C$ . Using the Tour scenario as an illustration, I will argue that, assuming certain plausible metaphysical theses about collectives, the framework

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<sup>10</sup>Classic examples in this literature all focus on the irreducibility of *de se* beliefs to *de dicto* beliefs. In general, their lessons are thought to generalize to other combinations of a *de se* content and an intentional attitude. For example, [Ninan \(2009\)](#) models *de se* imaginings with centered worlds. A notable exception is [Nolan \(2006\)](#), which argues that selfless desires are essentially *de dicto*, and therefore cannot be modeled with centered worlds.

<sup>11</sup>[Lewis \(1979\)](#) presents this account on pp. 531–532 and attributes it to [Quine \(1969\)](#).

<sup>12</sup>This account is often attributed to Lewis by contemporary philosophers, perhaps on the basis of his remark that, to address a problem with the spacetime account, “we might redefine centered worlds as pairs of a world and a designated inhabitant thereof” ([Lewis 1979](#), 532).

of centered worlds—combined with standard accounts of what centered worlds are—cannot model this special class of collective *de se* thoughts.

### 3.1 Collective Locationality and the Spacetime Account

Here is a plausible metaphysical thesis about the *location* of collectives:

COLLECTIVE LOCATIONALITY. The physical location of a collective is where its individual members are.<sup>13</sup>

Suppose this thesis is true. Can the spacetime account capture New Found Glory’s *de se* belief <we are performing next>?

Suppose that members of New Found Glory are located at spacetime coordinates (e, f, g, h) in the actual world @. By COLLECTIVE LOCATIONALITY, the collective New Found Glory is located at (e, f, g, h) in the actual world @. New Found Glory’s *de se* belief <we are performing next> *selects* the centered world (@, (e, f, g, h)) because New Found Glory is in fact performing next. But the members of New Found Glory are also the members of International Superheroes of Hardcore, and so by COLLECTIVE LOCATIONALITY, the collective International Superheroes of Hardcore is also located at (e, f, g, h) in the actual world @. The problem is that International Superheroes of Hardcore is in fact not performing next. So New Found Glory’s *de se* belief <we are performing next> also *does not select* the centered world (@, (e, f, g, h)). Therefore, using the spacetime account to model this *de se* belief results in an absurdity.<sup>14</sup>

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The spacetime account gets into trouble when there are multiple occupants of a physical location in a possible world.<sup>15</sup> In this scenario, according to the spacetime account, there is one centered world, (@, (e, f, g, h)), corresponding to two different collectives. Intuitively, New Found Glory’s *de se* belief should concern *it*, and not merely whatever is at its physical location. And so its *de se* belief <we are performing next> should select only the point of view in logical space that it occupies. The spacetime account fails to capture this intuition.

### 3.2 Collective Compositionality and the Inhabitant Account

Here is a plausible metaphysical thesis about the *composition* of collectives:

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<sup>13</sup>This rather weak metaphysical thesis accommodates a wide range of views about the location of collectives, from the view that a collective occupies the union of all the regions that its members occupy to the view that a collective is at the average location of the geometrical center of all its members. However, it is not vacuous; for example, it is incompatible with the view that collectives have no physical location.

<sup>14</sup>I thank Dustin Tucker for pressing me to clarify the argument here.

<sup>15</sup>Counterexamples in the same spirit are briefly noted in Lewis (1979)—“I assume that one centered world cannot be centered on two different cats, cats who occupy the same place at the same time” (532)—and developed in Liao (2012). However, those counterexamples involve co-location of ordinary concrete objects, such as cats and persons. It is thus relatively easy to dismiss them on the grounds of metaphysical impossibility or pragmatic irrelevance (cf. Holton (2014)). In contrast, the counterexample presented here is relatively hard to dismiss on the same grounds because the metaphysical thesis of COLLECTIVE LOCATIONALITY is fairly uncontroversial and the Tour scenario itself is fairly ordinary.

COLLECTIVE COMPOSITIONALITY. The concrete components of a collective are only its individual members.<sup>16</sup>

Suppose this thesis is true. Can the inhabitant account capture New Found Glory's *de se* belief <we are performing next>?

Suppose that members of New Found Glory—Jordan, Straightedge Chad, Steve, Ian, and Cyrus—are located at the temporal coordinate *h* in the actual world @. By COLLECTIVE COMPOSITIONALITY, the concrete components of New Found Glory are Jordan, Straightedge Chad, Steve, Ian, and Cyrus. Hence, in picking out inhabitants at time *h* in the actual world @, New Found Glory's *de se* belief <we are performing next> *selects* the centered world (@, (Jordan & Straightedge Chad & Steve & Ian & Cyrus, *h*)) because New Found Glory is in fact performing next. But the members of New Found Glory are also the members of International Superheroes of Hardcore, and so by COLLECTIVE COMPOSITIONALITY, the concrete components of International Superheroes of Hardcore are also Jordan, Straightedge Chad, Steve, Ian, and Cyrus. The problem is that International Superheroes of Hardcore is in fact not performing next. [end of p. 27] So New Found Glory's *de se* belief <we are performing next> also *does not select* the centered world (@, (Jordan & Straightedge Chad & Steve & Ian & Cyrus, *h*)). Therefore, using the inhabitant account to model this *de se* belief results in an absurdity.<sup>17</sup>

The inhabitant account gets into trouble when there are multiple entities associated with a collection of inhabitants at a particular time.<sup>18</sup> In this scenario, according to the inhabitant account, there is one centered world, (@, (Jordan & Straightedge Chad & Steve & Ian & Cyrus, *h*)), corresponding to two different collectives. Intuitively, New Found Glory's *de se* belief should concern *it*, and not merely whatever its members compose of at the time. And so its *de se* belief <we are performing next> should select only the point of view in logical space that it occupies. The inhabitant account fails to capture this intuition.

## 4 Solution Space and Theoretical Morals

The previous section uses the Tour scenario to illustrate the problem of collective *de se*. Like nearly all philosophical problems, this one can be overcome in various ways, each with its own costs. This final section briefly maps out the conceptual space of solutions and draws out the significance of this problem.

The bluntest ways to evade the problem of collective *de se* reject the basic assumptions embedded in it.

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<sup>16</sup>This rather weak metaphysical thesis accommodates a wide range of views about the composition of collectives, from the view that groups are non-singular pluralities to the view that groups are structures. In fact, it is compatible with all views about the metaphysics of collectives that Ritchie (2013) surveys. However, it is not vacuous; for example, it is incompatible with the view that collectives are *sui generis* entities that have no concrete components beyond themselves.

<sup>17</sup>I thank Dustin Tucker for pressing me to clarify the argument here too.

<sup>18</sup>Given the various ways to fill out COLLECTIVE COMPOSITIONALITY that footnote 16 highlights, the phrase “a collection of” here can be read as anything from “a plurality of” to “a structure of”.

[end of p. 28] The first way out is to *deny the existence of coextensive collectives*. For example, with the Tour scenario, one would say that New Found Glory and International Superheroes of Hardcore are not actually distinct bands but merely one band with two different names.<sup>19</sup> The cost of this option, as the discussion in §1 suggests, is that it is contrary to how people ordinarily talk about collectives and invoke collectives in folk explanations. As a testament to the counterintuitiveness of this option, note that the possibility of coextension is often taken as a desideratum for theorizing about the metaphysics of collectives.<sup>20</sup>

The second way out is to *reject the framework of centered worlds* in favor of another account of the *de se*, such as one of the accounts mentioned in footnote 9. The cost of this option, as footnote 9 also hints at, is that centered worlds have proved to be theoretically useful; it is unclear whether any of the replacements can tackle as wide a range of problems in philosophy and linguistics.

The third and final way out is to *deny the existence of genuine collective thoughts*.<sup>21</sup> The cost of this option is that it appears to run contrary to apparent everyday practices of linguistically ascribing and mentally attributing thoughts to collectives. Whether this is a serious or negligible cost will turn on one's view about such linguistic ascriptions and mental attributions. For example, if apparent linguistic ascriptions of mental states to collectives can always be given distributive readings that do not invoke collective mentality, then the cost of this option is minimal. In other words, to return to a point made in §1, the cost of this option partly depends on the success of the ordinary language argument for genuine collective thoughts.

[end of p. 29] Other ways of overcoming the problem of collective *de se* involve the rejection of at least one of the metaphysical theses about collectives invoked earlier. Given that both have some prima facie plausibility, there is a prima facie cost with rejecting either of them. Of the two, COLLECTIVE COMPOSITIONALITY is perhaps more controversial. As footnote 16 briefly notes, an obvious way to reject COLLECTIVE COMPOSITIONALITY is to take collectives to be sui generis entities. Each collective would then count as a unique inhabitant of a possible world, irreducible to other inhabitants. Since “centered worlds amount to presentations of possible individuals” (Lewis 1983, 25), taking collectives to be sui generis entities implies postulating many more *possible individuals* beyond persons and person-like entities. The cost of this option is thus a more bloated ontology of possibilia—a proliferation of possible individuals.

Since the rejection of COLLECTIVE COMPOSITIONALITY and the rejection of COLLECTIVE LOCATIONALITY constitute distinct ways out, the problem of collective *de se* effectively shows that the two standard accounts of centered worlds in fact make distinct theoretical commitments. Although the two accounts are often treated as mere notational variants, they turn out to make distinct assumptions about the metaphysics

<sup>19</sup>I thank Eric Guindon and an anonymous referee for suggesting this way out of the problem.

<sup>20</sup>See, for example, Ritchie (2013).

<sup>21</sup>For example, Baker (2009) argues that thoughts, or personal-level mental states, can only be attributed to individuals. Although a collection of individuals may constitute a cognitive system, no thoughts can be attributed to the collective.

of collectives.<sup>22</sup> The spacetime account is incompatible with COLLECTIVE LOCATION-ALITY, and the inhabitant account is incompatible with COLLECTIVE COMPOSITIONAL-ITY.<sup>23</sup> Therefore, the relative preferability of these standard accounts of centered worlds depends on the relative plausibility of the respective theses about the metaphysics of collectives.

Maybe the problem of collective *de se* cannot be evaded or overcome without substantial cost. It would then function as a constraint for theories of mental content. For example, one might take the problem of collective *de se* to be a mark against collective *de se* thoughts, and then use the problem to criticize accounts of collective mentality that posit collective *de se* thoughts.<sup>24</sup> Specifically, the two prominent arguments for genuine collective thoughts surveyed in §1—the ordinary language argument and the explanatory non-superfluosity argument—would be subject to this criticism.

Or perhaps there are other creative solutions to the problem of collective *de se* that I have not considered. Even if the foregoing survey of potential solutions is not exhaustive, it shows the theoretical interest of this problem. A grand moral, then, is that both philosophers who work on the *de se* and philosophers who work on collective thoughts can benefit from an increased sensitivity to collective *de se* thoughts.

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<sup>22</sup>For example, it is claimed that “[t]here are different ways of picking out a center—the center could be, for example, a spacetime point, or an individual, within the world. Not much hangs on this decision[...].” (Egan 2006, 518).

<sup>23</sup>To state the point more broadly, coextension in space is at least conceptually different from coextension in parts. Saucedo (2011) argues that location can come apart from parthood with the assumption of some weak modal recombination principles.

<sup>24</sup>I owe this point to an anonymous referee.

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