James Openshaw

Thinking about Many [*]

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The notorious *problem of the many* makes it difficult to resist the conclusion that almost coincident with any ordinary object (such as a cat or a coffee cup) are a vast number of near-indiscernible objects. As Unger (1980) was aware in his presentation of the problem, this abundance raises a concern as to how—and even whether—we achieve *singular thought* about ordinary objects. This paper presents, clarifies, and defends a view which reconciles a plenitudinous conception of ordinary objects with our having singular thoughts about those objects. Indeed, this strategy has independent application in the case of singular thoughts about other putatively 'abundant' phenomena, such as locations or lumps of matter. In essence, singular thought-vehicles need not express just one singular content. If there are many objects, one's singular thought-vehicle may express as many thought-contents.

1 Introduction

We are capable of thinking about and referring to objects in a distinctively direct way. Suppose that Alice is playing with Tibbles the cat. Visually attending to him, she can make perceptual-demonstrative judgments like *He is ginger* or *That is a male*. If we imagine that Tibbles happens to have been the first ginger cat born in 2020, we can contrast Alice's judgment with that of Ben: on purely statistical grounds, Ben thinks the first ginger cat born in 2020, whichever it is, is male. While both thoughts here are in some sense 'about' Tibbles, there is a fundamental difference in what this aboutness consists in. Had Tibbles never existed, Ben's belief would likely still be true (roughly 75% of ginger cats are male). In contrast, Alice's thoughts *could not* be true in virtue of the colour or sex of any other cat. For Tibbles is the direct subject matter of Alice's judgment. Anyone entertaining the same thought as Alice would, necessarily, be thinking about Tibbles.

This presence of particular things before the mind—this capacity to have *singular* thoughts—is a basic feature of our mental lives. Judgments authored on the basis of relations like

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those made available by perception, testimony, and memory to what metaphysicians call *ordinary objects* are widely taken to be the paradigm cases of singular thought. It is no mystery why. If you were casually asked what things there are in your current surroundings, you would pick out an array of ordinary objects: chairs, cups, cats… We are invested in these 'moderate-sized specimens of dry goods' and in their candidacy for being the immediate subject matter of our thoughts. So our initial assumption is this:

(ST) We can have singular thoughts about ordinary objects like Tibbles the cat.

Ordinary objects have a characteristic internal structure and causal profile. They extend through space and move through time in an integrated way, surviving myriad changes. Their condition at a time constitutively depends upon their condition at earlier times. They fall under kinds (or, according to some, sortals) like *person*, *cat*, and *tree*. I will put all this by saying that ordinary objects are *unified*. By contrast, consider a mere lump or quantity of matter; a thing individuated by (and which persists if and only if do) its simplest parts.[1] Here there is no integrity or structure which might allow persistence through loss of parts. But, of course, despite their differences, ordinary objects and lumps of matter are related in one way or another. The difficulty of understanding precisely how they are related is the source of the notorious *problem of the many*.

1.1 The problem of the many

The kinds (or sortals) under which ordinary objects fall carve microphysical reality in a coarse-grained and imprecise way. Take Tibbles, a typical cat. Almost coincident with any microphysically precise specification of the lump of which Tibbles is made is a distinct lump which resembles the first extremely closely in relevant respects. Perhaps it is exactly the same but for one particle. *Question:* In virtue of what does this first lump of matter make up a cat and the second not?

[1] The notion of a lump of matter throughout this paper is compatible with many different metaphysical views. Nihilists—and many of those who impose a restriction on composition—may reinterpret this as semantically plural talk about simples. As Jones (2010: 31) points out, the problems below will still arise on such views when we ask which (if any) simples collectively instantiate ordinary kind properties like *being a cat* or *constituting a cat*.

Unger (1980: 447) argues from the following principle of minute difference (PMD) to the claim that nothing could support a divisive answer to this question, and, therefore, that if there is at least one cat on Tibbles's mat there are *many* such cats:

(PMD) If *x* is a typical cat and *y* differs only minutely in cat-respects from *x*, *y* is a cat.

Notice that (PMD) is not a 'tolerance' principle objectionable on the grounds that it leads to a Sorites paradox, for it is not claimed in the consequent that *y* is a typical cat. Since almost coincident with any microphysically precise specification of the lump of matter of which Tibbles is made is something resembling her extremely closely in cat-respects, (PMD) forces us to conclude:

(MC) There are many (macrophysically indiscernible) cats on Tibbles's mat.

The so-called *problem* of the many is that (MC) contradicts a piece of good common sense:

(OC) There are not many cats on Tibbles's mat. There is (at most) *one* cat there.

So it seems that something must have gone wrong in our analysis of the relationship between cats and lumps of matter. What could that error be?

We have admittedly made one controversial assumption. Arguments for (MC) which are based on (PMD) assume that lumps of matter closely resemble cats in cat-respects. But this claim looks suspicious given our earlier observation that cats, unlike lumps of matter, are unified. Cats persist through much mereological change, and they have a far more robust modal profile than lumps of matter. Perhaps Tibbles is a cat essentially, something no mere lump of matter could be. So even if lumps of matter in some sense *constitute* cats, no lump *is* a cat. (MC) does not follow from the following harmless truth in the vicinity of (PMD) (Johnston, 1992: 100):

> If *x* is a typical cat and *y* differs only minutely in cat-respects from *x, and y is of the right kind* (not a mere lump of matter), *y* is a cat.

'Constitutes' is a term of art for a familiar notion. We talk of the glass which makes up a bottle, for example. We can be slightly more precise about this 'making up' relation by saying:

> For all *x, y: x constitutes y* iff *x* (spatially or materially) coincides with (e.g. has exactly the same proper parts as) *y* and *x* is a lump of matter.

However, Unger's problem persists. There is a minute difference principle which does not assume that cats and the lumps of matter which constitute them are alike in cat-respects:

> (PMD*) If *x* is a typical cat constituted by lump of matter *l* and some lump of matter *l′* resembles *l* very closely in *cat-constituting* respects, *l′* constitutes a cat.

(PMD*) appeals to likeness in cat-constituting respects between lumps of matter. In combination with the claim that distinct cat-constituting lumps of matter cannot constitute the *same* cat, (MC) follows once again, directly contradicting the common-sense claim (OC).

The ultimate source of Unger's problem is that whether a lump of matter constitutes (or is) a cat does not turn on the sorts of microphysically sensitive differences which distinguish the many lumps of matter from one another, but on general, macrophysical differences of the sort which do *not* distinguish them from one another.[2] It is then very hard to deny that either *each* of the many constitutes a cat or *none* do. Since there is at least *one* cat, (MC) is true.[3]

2 Intentional problems of abundance

[2] It is important to distinguish this way of arriving at (MC) from one proceeding from an observation of *fuzziness* in an ordinary object's material boundaries (Lewis 1993). The latter at least threatens to generate higher-order worries (it being borderline which atoms are borderline parts of Tibbles). Even supposing it is perfectly clear which things are parts of Tibbles, there are still many massively overlapping lumps of matter for (PMD*).

[3] Unger (1980) himself opted to reject this last step, embracing nihilism about ordinary objects like Tibbles the cat. As I describe in §2, Unger took the truth of (MC) to be incompatible with our having singular thoughts about cats, and with much of our knowledge about cats, and so nihilism seemed at no disadvantage for entailing that such thoughts and knowledge were not possible. By reconciling (MC) with (ST), this paper undermines much of the perceived parity between nihilism and (MC). Still, I will not be defending (MC) itself here.

(MC) raises problems for theories of intentionality. In particular, take the paradigm case of perceptual-demonstrative singular thought with which we began, intuitively describable by saying that Alice is visually attending to Tibbles. It looks almost impossible to deny that each of the relevant 'many' is an equally good candidate for being the direct subject matter of Alice's thought. To determine whether Alice's *That*-thought is about some particular cat *x*, we would look for some appropriate causal relation between Alice and *x* (Devitt 1981), or Alice's capacity to perceptually track *x* (Campbell 2002), or an epistemically rewarding link between Alice and *x* (Recanati 2012), or the presence of a means of belief-formation which enables Alice to reliably get a range of *x*'s properties right (Dickie 2015)… Clearly, no candidate aboutness-fixing facts are going to select just one of the many.[4] If they select any of Tibbles' many, they will thereby select them all.[5] In parallel to our observation at the end of §1.1, we find that whether Alice's putative singular thought is about a cat does not turn on the sorts of microphysically sensitive differences which distinguish the many from one another, but on general, macrophysical differences of the sort which do not distinguish them from one another…[6] Once we recognise this, it is not obvious how to accommodate the possibility of such singular thought at all. How can something be the 'direct subject matter' of a thought which is equally about a vast number of other objects of the same kind? How can a thought be 'singular' if it fails to 'single out' its object?

The *intentional* problem of the many with which I will be concerned consists in this tension between (ST) and (MC). To put it another way, the following conditional looks irresistible:

(MC-ST) If (MC) is true, then Alice cannot have a perceptual-demonstrative singular thought about Tibbles the cat.

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[4] Even those sceptical of a generalized 'acquaintance' requirement on singular thought (e.g. Hawthorne and Manley (2012)) will agree that where *perceptually-based* singular thoughts are concerned, for instance, whatever reference-determining features there are will not privilege any one of the many.

[5] One could, in the spirit of Breckenridge and Magidor (2012), instead claim that Alice's thought 'arbitrarily refers' to one of the many cats, despite our in-principle inability to know which. This strategy would have to deny the plausible idea that semantic facts (e.g. that cat_{567} is being referred to) are always determined by other facts (e.g. facts about use). In other words, it would be to deny that there are aboutness-fixing facts *per se*.

[6] Epistemicists may insist that *S*'s perceptual-demonstrative judgment is about just one of the many objects despite its being unknowable which, perhaps because such knowledge would violate a 'psycho-semantic' safety principle (Williamson 1994). For criticism of the metaphysical bruteness this view results in, see Horgan (1997).

The principal aim of this paper will be to undermine (MC-ST). I will do this by proposing a way of reconciling (MC) and (ST). This proposal will equip us with an ability to tolerate claims like (MC) by teaching us how the phenomenon of singular thought may survive referential abundance.

Before I begin to elucidate the proposal, allow me to motivate the approach. After all, there are well-known metaphysical options available for intervening on the argument for (MC). On these 'one-cat' views, Tibbles is the only cat. Such views face the question of *which* candidate cat-constituter she is constituted by. In the face of (PMD*) there are two plausible answers: (i) exactly one of them; (ii) each of them. Type (i) answers must acknowledge the extreme similarity of the many candidate cat-constituters. Perhaps an unappealing bruteness could be insisted upon. More promisingly, this could be combined with a conception of the world itself as fundamentally indeterminate (Barnes and Williams 2010). Perhaps it is metaphysically determinate that Tibbles is constituted by just one of his many candidate cat-constituters (he is not a 'vague object'), but metaphysically indeterminate which, perhaps because cats are not the sort of thing which can massively overlap. Type (ii) answers must introduce a one-many kind of constitution relation.[7]

Although I am not unsympathetic to these views, in this paper I will simply assume (MC).[8] My primary reason for doing so is that *analogous problems crop up elsewhere where neither 'one-cat'-style solutions nor nihilist solutions can offer any sort of support*. On plausible assumptions about the nature of spacetime, for example, demonstrative reference and singular thought about locations and times is beset with precisely analogous difficulties. Were Alice to author a judgment about the *place*—*There*, as it were—where she is perceptually attending, the claim that there are a vast number of referential candidates is undeniable. To insist that there will in such cases be just one (or one most referentially eligible) place—or indeed, with the nihilist, that there is *no* place—for subjects' *There*-thoughts to be about looks simply beyond the pale. It is far from clear that we can live with the conditional about places (or times) which is the analogue of (MC-ST):

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[7] (Jones 2015). His ingenious view takes certain properties of Tibbles to be had 'relative to a constituter'. One corollary is that the view is committed to rethinking the adicity of relations like parthood, too. Tibbles only has *any* of the parts he has relative to some constituter. Having parts may turn out not to be an intrinsic property.

[8] For philosophical discussion of embracing the 'many cats' conclusion, see Liebesman (2020), López de Sa (2014), and Williams (2006).

(MP-ST) If there are a vast number of locations to which *S* is perceptually related, *S* cannot have a perceptual-demonstrative singular thought about a place.

It is also natural to think that it is possible to entertain perceptual-demonstrative thoughts about lumps of matter. We often talk of 'this glass' which makes up a milk bottle. A scrap metal merchant might form singular, perceptual-demonstrative desires about a lump of copper she has just acquired. Yet given the notion of a lump of matter upon which Unger's (1980) problem of the many rests, the considerations which would have us endorse (MC-ST) would force us to embrace the following conditional:

(ML-ST) If there are a vast number of lumps of matter to which *S* is perceptually related, *S* cannot have a perceptual-demonstrative singular thought about a lump of matter.

Notice that it would hardly help to suppose that perceptual-demonstrative thoughts about locations, times, or lumps of matter are always complex demonstratives (of the form 'That such-and-such') whose descriptive element enables uniqueness of reference. For what substitution for 'such-and-such' could Alice plausibly be using to refer to some unique location? There may be no biggest place (encompassing all others), or closest place, and so on.

We are therefore under some pressure to pursue a *unified* solution which can treat (what we may call) *intentional problems of abundance* on a par. That is to say, we have independent reason to pursue a reconciliation between (ST) and claims of the form in (MC), for there are intentional problems of abundance which we do not wish to solve by simply denying the relevant analogue of (MC). While my focus in this paper will be on the apparent irresistibility of (MC-ST)—that is, on the 'intentional problem of the many'—it will be a desideratum of the solution I put forward that it should equally apply to (MP-ST) and (ML-ST)—i.e., to intentional problems of abundance in general.

A second reason for approaching our intentional problem of the many by reconciling (ST) and (MC) is that the portion of theoretical space in which (MC) is accepted has been overlooked and poorly mapped out. It is generally assumed that if (MC) is true then (ST) must not be. Unger's own discussion serves to illustrate this point.

> If I have never thought individually of any [cat], or any other common object, then […] it may well be that I have never *thought of* any [cats] at all, or tables, or even human hands. If that is so, then it would seem that *a fortiori* I do not *know* anything *about these entities* […]. [Here we have a new route to] epistemological skepticism, concerning much, if not all, of our alleged knowledge of the external material world (1980: 458).

Finally, the problem of the many has often been treated as the problem of reconciling the truth of numerical judgments like *There is exactly one cat on the mat* with the apparent existence of many cat-like objects, differing by a stray atom or two, which look to be equally good candidates for being the referent of 'Tibbles'. From that perspective, it may look perverse to *embrace* (MC) and then worry about whether we have singular thoughts about the many cats to which we are committed… As we will see in §3, however, the only seriously developed strategy (though see n. 6, above) for reconciling the truth of numerical judgments like *There is (exactly) one cat on the mat* with the apparent existence of many cat-like objects is *incompatible* with (ST). Someone who takes the existence of singular thoughts about ordinary objects to be a more or less bedrock assumption, then, will be interested in pursuing the best alternative strategies. The proposal advanced in this paper could be read as a contribution to that pursuit. For the goal will be to understand the character of our achievement in having singular thoughts about ordinary objects like Tibbles the cat in the face of (MC)'s truth. Given that there are ordinary objects (or, at least, things which instantiate ordinary kind properties), then *if (MC) is true,* how is singular thought about them achieved? In other words, I will be arguing that (MC-ST) should be rejected.[9]

In §3 I set out the proposed reconciliation of (MC) with (ST), arguing that while many *de dicto* judgments of the form *There is exactly one cat on the mat* are of course (strictly speaking) false if (MC) is true, those of the form *That cat is on the mat* face no such trouble. §4 briefly compares the proposal advanced in §3 to the most recent influential discussion of singular thought and the

[9] Given these dialectical ambitions, I will not be examining whether or not (MC) itself is true, nor will I be discussing philosophical concerns for metaphysical systems which embrace (MC)—for instance, that once we say each lump at t_1 constitutes a cat we must answer where the persisting cats go when there are fewer lumps at t_2 (due to the destruction of one or two particles). Since they must have the persistence conditions of cats rather than lumps, we face the question: which lump constitutes them? Thanks to David Jenkins for raising this point.

problem of the many, in Dickie (2015). I will register some serious concerns for Dickie's treatment and suggest that my proposal offers the most plausible story in the vicinity. Finally, §5 closes by considering some salient objections to the proposal.

3 Solving the intentional problem of the many

Let us return to our original paradigm case of perceptual-demonstrative singular thought, which we would describe by saying that Alice is visually attending to Tibbles. Call this case *C*. What are the putative aboutness-fixing facts in *C* which could make it the case that Alice's thoughts are successfully about some particular cat *x*? Surveying the leading proposals from the literature, this story presumably involves there being an appropriate causal relation between Alice and *x* (Devitt 1981), or Alice's capacity to perceptually track *x* (Campbell 2002), or an epistemically rewarding link between Alice and *x* (Recanati 2012), or the presence of a means of belief-formation which enables Alice to reliably get a range of *x*'s properties right (Dickie 2015)…. Given the abundance of cat-like objects to which Unger's (1980) argument in §1 drew our attention, none of the candidate aboutness-fixing mechanisms seems remotely able to select just one of the many. In all these respects, the many are on a par. The aboutness-fixing facts in *C* are too coarse-grained for Alice's perceptually based *That*-thoughts to receive a unique and determinate referent.

In characterizing this situation, it is useful to lean on some supervaluationist ideology. To introduce this more perspicuously, I will run my discussion at the level of language before returning to the level of thought. Let us call a function from expressions of a language—or indeed vehicles of thought—to semantic values an *interpretation*. On classic supervaluationist treatments of vagueness, vague languages receive an interpretation which assigns *a class* of functions from expressions to semantic values. We can call these functions *precisifications*. Some think of these precisifications as ways in which the language could be made precise. But this ideology is itself neutral on the source of vagueness. What is key is just that these precisifications provide an illuminating model of vagueness by meeting certain constraints. They must agree on clear cases (e.g. they must all assign Yves Klein's IKB to the extension of 'is blue') and they must respect penumbral connections between expressions of the language (i.e. if *a* is in the extension of 'is blue' on a precisification *p* then if *b* bears the relation which *p* assigns to 'is bluer than' to *a*, then *b* is in the extension of 'is blue' on *p*) (Fine 1975). We can then define truth for sentences of the language

on an interpretation as truth on *every precisification* of that interpretation—i.e. 'supertruth'. A sentence of the language is false on an interpretation iff false on every precisification of that interpretation—i.e. 'superfalse'.

Before modifying this ideology and applying it to *our* intentional problem of the many in §3.1, it will be useful to briefly explore McGee and McLaughlin's (2000) influential and careful discussion of Unger's (1980) problem, since they make use of precisely this supervaluationist machinery. Whereas our problem has to do with the possibility of singular thought given the truth of (MC), McGee and McLaughlin (2000) see the problem as being the very truth of (MC) in the first place. Unsurprisingly, then, their solution aims to preserve the intuitive truth of numerical judgments like *There is exactly one cat in C*. But it leaves our everyday singular thoughts about these ordinary objects entirely at sea.

Applying the supervaluationist notions above (in particular, of truth as supertruth, and of an interpretation as a class of precisifications) to both natural language and to thought, McGee and McLaughlin (2000) interpret Alice's perceptual-demonstrative *That*-judgment by assigning a class of functions from her judgment to candidate referents. Each of these precisifications is such that there is exactly one thing which satisfies *x is the cat in C* on that precisification. This immediately gives McGee and McLaughlin the result they are after: (MC) is false. It is false because it is superfalse. Moreover, since all of the precisifications agree (due to penumbral constraints) that the unique thing which satisfies the judgment *There is exactly one cat in C* satisfies the judgment *Tibbles is the cat in C* (2000: 142), both of these judgments come out true (because supertrue). Of course, since the precisifications disagree on *which* thing satisfies both *Tibbles* = *x* and *x is the cat C*, there is no thing of which it is (super)true that *it* satisfies these sentences.

Unfortunately, given this last feature, McGee and McLaughlin (2000) are forced to agree with Unger that singular thought about ordinary objects is impossible. As they put it, there would need to be a unique cat *x* for which 'Alice is thinking about *x*' is (super)true. But there is not. The temptation to talk of precisifications on which Alice's perceptual-demonstrative judgment is 'precise' is misleading, for precisifications are simply a "mathematical tool" (2000: 146). They are not part of the content of subjects' beliefs (Jones, 2010: 162). No precisification changes the semantic facts and makes it the case that there is something Alice's perceptual-demonstrative judgment gets to be about. A precisification's "assigning sharp values […] doesn't do anything to sharpen the focus of [Alice's] beliefs" (McGee and McLaughlin, 2000: 146).

There are other, more general reasons to be dissatisfied with McGee and McLaughlin's treatment, besides its inability to help solve our problem specifically concerning singular thought about ordinary objects. Notoriously, the identification of truth with supertruth entails the rejection of bivalence and various classical inference rules. Take one of Tibbles's many, T_{26}. The sentence 'T_{26} is a cat' is neither (super)true nor (super)false. It is also worth noting that the problem of the many is not just a problem about the truth-values of thoughts or sentences. It cannot be resolved just by rendering (MC) false. It remains the case that there are many cat-like lumps of matter inhabiting the region of space intuitively inhabited by only Tibbles and his constituter. Even if it is false that they are all cats (or cat-constituters), they are *intrinsically just like* cats (or cat-constituters). Further metaphysical work is needed to show that this alone is not problematic in ways that will make McGee and McLaughlin's account unpalatable (Jones, 2010: 171).

3.1 Many thoughts

I want to now advocate a simple alternative way of implementing some of the supervaluationist ideology above, one which avoids the identification of truth with supertruth, and which helps to solve the intentional problem of the many described in §2. To do this, it will help to again draw a parallel with discussions of vagueness in natural language.

As applied to the phenomenon of vagueness, the account I have in mind says that vague languages have not one admissible interpretation (nor *a fortiori*, as on standard supervaluationism à la McGee and McLaughlin (2000), one assigning a class of precisifications) but *many interpretations*. In various scattered remarks (e.g. Lewis, 1970: 228), David Lewis suggests that vagueness is a partly *metasemantic* phenomenon: "Whatever it is that we do to determine the 'intended' interpretation of our language determines not one interpretation but a range of interpretations" (1993: 172). If the aboutness-fixing facts are insufficiently fine-grained to induce a total ordering on interpretations, a sentence on an occasion of use will—the idea goes—often express the *many* contents which it is assigned by its many admissible interpretations—contents similar enough to go undetected by

language users.[10] To anticipate where we are heading: where McGee and McLaughlin (2000) used standard supervaluationism to interpret Alice's judgment by assigning a class of functions from her judgment to candidate referents, we are instead taking Alice's judgment to be *multiply interpreted*. In combination with the rejection of truth as supertruth, this will give us very different results.

On this broadly Lewisian picture, we define the truth of a sentence of the target language *L* on an occasion of use as truth on an admissible interpretation of *L*: sentential truth for sentences of *L* is relativized to an interpretation of *L*. Unlike standard supervaluationism, this enables us to retain bivalence. *How?*, one might ask. *Surely if Lewis's story is right then the sentence 'T_{26} is a cat' is both true and false, for it is true on an admissible interpretation of L and it is false on an admissible interpretation of L*… We are to think of this concern as somewhat like worrying that my use of 'I am hungry' contradicts your use of 'I am not hungry'. On the proposed way of thinking, sentential truth is simply not a monadic property. There is no way of evaluating a sentence for truth simpliciter, even once we have fixed on a context of use. Sentences on their occasions of use only form part of the recipe for proper alethic evaluation. Before evaluating a use of the sentence 'T_{26} is a cat', we have to first settle on an interpretation of the language.[11] Still, the *contents* thereby *expressed* by interpreted sentences instantiate the usual monadic properties of truth and falsehood. Contents are the primary bearers of truth and falsehood, after all.

Now returning to the level of thought and to the intentional problem of the many from §2, we can apply this model to understand what is going on in *C* given the truth of (MC). Since the aboutness-fixing facts in *C* are too coarse-grained for Alice's perceptually based *That*-thoughts to have a unique admissible interpretation, Alice's perceptual-demonstrative thought-vehicle expresses many singular contents: one for each function from her demonstrative thought-vehicle to a cat in *C*. Quite generally, when one is perceptually related in the appropriate way to an ordinary object, the vehicle of one's *That*-thoughts has many admissible interpretations. When one exercises such a thought-vehicle, one thereby entertains all (and only) those contents to which that thought-

[10] For some discussion of this view, see Dorr (2014) and Dorr and Hawthorne (2014: 333–6). My presentation is indebted to Jones (2010) (who does not endorse the view). Since writing this paper, Merlo's (2017) has been brought to my attention, which explores a similar view while trying to remain neutral on his analogue of (MC).

[11] There is no such thing as *the* truth-conditions of 'Tibbles is hungry' or 'That is a cat' (even on an occasion of use). Accordingly, 'is true' in *L* expresses many properties, and, on any given interpretation, penumbral constraints will have the effect that "'T_{26} is a cat' is true' is either true or false.

vehicle is mapped by admissible interpretations. One's thought is, to put it one way, multiply interpreted.

Since Alice's judgment is perceptually based these contents will either be all true or all false. The kinds of properties which are perceptually attributable to ordinary objects do not turn on the sorts of microphysically sensitive differences which distinguish the many from one another (e.g. *That has a mass of 3038.14845 grams*), but on general, macrophysical differences of the sort which do not distinguish them from one another.

Do not think of this as a way of saying that it is *indeterminate* which cat in *C* Alice's singular thought is about. It is (determinately) about each cat in *C*. Alice's judgment expresses contents about each of the many. In situations of abundance of the kind assured by (MC), what the subject entertains is an abundance of thought-contents.

It is also important not to confuse this proposal with the claim that Alice's perceptual-demonstrative judgment *That is ginger* is *plurally about* many cats. As Unger put it, objecting to something like that view: "if there are millions of 'overlapping stones' before me […] 'It is quartz.' […] will not even be grammatically appropriate for expressing any truth that I might be grasping about real objects over there; I should better think, 'They are quartz.'" (1980: 456). However, on the picture I am proposing here, while it is true to say that one thinks about each of the many cats in *C*, there is no admissible interpretation which assigns a plurality to Alice's perceptual-demonstrative thought-vehicle. Each vehicle-interpretation pair expresses an object-dependent content with a particular cat as a constituent. So the belief *That is a many* is false and the belief *That is a single cat* is true. Alice has many thoughts each about one of the many cats, not one thought plurally about the many cats.

To summarise, if (MC) is true then we should accept the following claim.

(MT) In paradigm cases of (putative) singular thought wherein the reference-fixing facts fail to induce a total ordering on admissible interpretations for the vehicle of the subject's (e.g. perceptual-demonstrative) judgment, the vehicle of the subject's judgment expresses many singular contents (one according to each of the interpretations tied for being most eligible).

If (MT) is so much as tenable, this is sufficient to undermine the move in (MC-ST).

Let me clarify exactly how this differs from McGee and McLaughlin's (2000) treatment. McGee and McLaughlin capture the truth of our ordinary numerical judgments—*There is exactly one cat in C*—by identifying truth with supertruth but thereby *fail* to capture the possibility of paradigm, perceptually based singular thoughts about ordinary objects. The proposal codified in (MT) acknowledges that our ordinary numerical judgments are false, but it succeeds in capturing the possibility of perceptual-demonstrative reference to the ordinary objects in our midst because those thoughts express *many* singular contents.

A somewhat different way of cashing out the proposal would be to assign a propositional function, or 'propositional radical' (Bach 1994), as the content of Alice's thought, i.e. a structure with 'gaps' to be filled by (in this case) an object in order to yield a proposition. The idea would be that where I specified the content(s) of Alice's perceptual-demonstrative thought-vehicle as being the many contents $c_1 \ldots c_n$, this theorist instead specifies it as being a single propositional function or schema whose outputs or instances are $c_1 \ldots c_n$. At the present stage of our philosophical theorizing about propositions, perhaps this is little more than a notational variant. But insofar as this difference is more than just book-keeping, I should emphasise that this paper's proposal is neutral on the matter. From here on I will talk as if the proposal is wedded to the 'many thought-contents' claim, but strictly speaking the proposal could just as well be adopted by someone willing to embrace so-called gappy propositions or propositional radicals and the like.

Given my ecumenical ambitions in this paper, it is important to remain as neutral as possible on the exact nature and requirements of singular thought. However, with a view to giving the reader a clearer sense of some of the proposal's details, I will cast this neutrality aside for a moment. I said that when a subject like Alice is perceptually related in the appropriate way to an ordinary object—like the many cats guaranteed by the truth of (MC)—the vehicle of one's singular judgment has many most-eligible admissible interpretations, and by exercising such a thought-vehicle in those circumstances one thereby entertains all (and only) those singular propositions to which that thought-vehicle is mapped by those most eligible admissible interpretations. So suppose one is inclined to trade in the popular talk of mental files, thinks that the vehicles of singular thoughts are these mental files, and thinks that a mental file about an ordinary object such as a cat or a coffee cup has its reference fixed by being based on an epistemically rewarding link to that object (Recanati 2012). If it is possible for Alice to bear an epistemically rewarding to a cat in *C* (in line with our assumption (ST)), perhaps because her perceptual relatedness puts her in a position

to acquire and marshal information concerning that cat's colour, furriness, size, and location, then the mental file which is the cognitive residue of this achievement will store information which accurately characterises one cat if and only if it accurately characterises the many others to which the subject is also perceptually related. It stands to reason, then, that one's thoughts are properly characterizable as being about each of the many cats, rather than as being about just one or none at all.

It is compatible with this picture of singular thought that it still play certain basic theoretical roles. For example, having a singular thought about an ordinary object is still a way of having a thought for which that object is the 'direct subject matter' in the sense distinguished in the opening paragraph of the paper. According to (MT), Alice entertains many thoughts simultaneously in *C*, between which she cannot—and need not—discriminate, and each thought is about exactly one cat. Alice has many thoughts each about one of the many cats, not one thought plurally about the many cats. (As I will return to suggesting at the end of this section, if perceptually-based singular thoughts which have locations or lumps of matter as their direct subject matter are so much as possible for creatures like us, something like (MT) is the most natural way of explaining how.)

We also need not resign ourselves to concluding that all thought about ordinary physical objects in our environment is achieved 'by description' (Russell, 1913/84: 10). We can agree with Strawson (1959: 20), Burge (1979: 430–1), Evans (1982: 278), Eilan (1988: 106–7), Bach (2010: 39), and Goodman (2013) that singular thought plays a crucial theoretical-explanatory role in 'grounding' or 'anchoring' the mind, enabling causal and practical relations to privilege the objects around us over any qualitative duplicates there may be elsewhere in the universe:

> …among a system of thoughts, there must be some singular thoughts, or else we would have no explanation of the fact that our thoughts are about the particular objects with which we have causal, practical and informational interactions, and are so precisely in virtue of these interactions (Goodman 2013: 122).

Those who like to think of the vehicles of singular thought as being mental files may worry that embracing (MT) endangers the validity of the distinctive inferential transitions which a mental file allows. A subject with a mental file treats beliefs in that file as being about the same thing. She will be disposed to 'trade on identity'—to transition from beliefs of the form *a is* Φ and *a is* Ψ to

Something is both Φ and Ψ (Campbell 1987). It is often held that if one (at least synchronically) authors two perceptual-demonstrative judgments, e.g. *That is ginger* and *That is a cat*, one is in a position to know that the two demonstrative thought-tokens co-refer if they refer at all (Recanati 2012: 132). The idea is that one's basis for thinking the pair of thoughts affords a basis for one's recognizing that the two referentially stand or fall together. Such 'mental files' theorists will need reassurance that our multiple contents picture does not threaten the validity of such thought-patterns as *That is ginger; That is a cat; So, something is both ginger and a cat*, if authored synchronically.

The many contents view by itself does not threaten the validity of trading on identity, nor one's capacity to know immediately (Campbell 1987) or even infallibly (Recanati 2012) that one trades on identity when one does so. In a chain of reasoning (where the range of admissible interpretations remains fixed) of the form *That is F; That is G; therefore, That is both F and G*, we are to treat the interpretation of the demonstrative thought-vehicle as *uniform* throughout, so that when one reasons in this way one comes out as entertaining many univocal patterns of argument each of which is valid.[12]

To provide a flavour of a treatment of singular thought which is not immediately compatible with (MT), consider the picture in Lewis (1979). According to Lewis, one has a singular belief about *o* to the effect that *o* is *F* iff (i) there is some causal-informational relation *R* which one bears to *o uniquely;* (ii) one self-ascribes the property of *uniquely* bearing *R* to some *F*. Views like Lewis's (1979) which come with built-in uniqueness requirements are not compatible with (MT). If one is to set oneself up to embrace (MT), one cannot suppose that part of what is involved in having singular thoughts is uniquely bearing some relation to the object of one's thought, or thinking of the object of one's singular thought *as* unique in the kinds of respects which the many cats in *C* are clearly not. How much of a problem is this?

There is independent pressure to loosen uniqueness requirements of this kind. Even philosophers who pursue some form of 'one-cat' solution to Unger's (1980) problem of the many (see §1) must wrestle with the fact that subjects appear to bear appropriate causal relations the many cat-like lumps of matter in Tibbles's vicinity. And the material coincidence of statues and their constituters (the so-called 'qua' problem) suffices to raise some worries for Lewis's (1979) proposal. Once we begin to loosen up our uniqueness requirement to account for these wrinkles,

[12] The notion of uniformity is due to Dorr (2014).

so that (e.g.) perceptually-based singular thought involves something like a causal relation to an object of a kind which enables the subject to reliably identify a general range of that object's properties (Dickie 2015), we now have sufficient wiggle room to embrace (MT), for there will be not just one cat whose properties Alice is in a position to reliably identify owing to her perceptual channel.[13]

Before closing this section, it deserves explicit mention that this proposal is equally applicable to the analogous cases of (perceptually based) singular thought about locations, times, and lumps of matter which were part of the motivation for seeking a reconciliation between (MC) and (ST). Recall the two conditionals we had been hoping to resist:

(MP-ST) If there are a vast number of locations to which *S* is perceptually related, *S* cannot have a perceptual-demonstrative singular thought about a place.

(ML-ST) If there are a vast number of lumps of matter to which *S* is perceptually related, *S* cannot have a perceptual-demonstrative singular thought about a lump of matter.

While it is not within the scope of this paper to explore the exact requirements on having singular thoughts about locations, times, or lumps of matter, these requirements will not include uniqueness conditions on the place (etc.) of one's thought for the familiar reason that subjects' perceptual sensitivity, conative dispositions, etc., will not enable a unique object to be selected as the most eligible referential candidate.

The next section briefly compares the proposal advanced in this section to the most recent and influential discussion of singular thought, and Unger's (1980) problem of the many, in Dickie (2015). I will register some serious concerns for Dickie's discussion before suggesting that my proposal offers a more plausible story, one which perhaps preserves the general spirit of Dickie's remarks. Some readers may prefer to instead skip ahead to §5, which considers the most pressing objections to my proposed reconciliation of (MC) and (ST), before §6 concludes.

[13] For further indication of some claims about singular thought with which (MT) is not obviously compatible, see the discussion of Objection 1 in §5.

4 Dickie's (2015) solution

Suppose that Sam and Sally are having a conversation in which they assert things like 'Fifty-cent coins are too heavy' or 'A five-dollar note will survive a trip through the washing machine'. The sentences they use feature predicates which if true of any coin or note of the relevant denomination are true of all of them. Because of this feature, Dickie (2015) suggests that the *subject matter* of their conversation cannot be individual coins or notes but must be "whole denominations (classes of coins and notes of the same value)" (2015: 30). The general metasemantic constraint on subject matter to which this is said to point is:

> linguistic practice can legitimately be said to involve talk about individual members of an equivalence class, rather than just the class itself, only if the predicates it employs are fine-grained enough to distinguish the members of the class (Dickie 2015: 30–1).

We'll see how Dickie applies this metasemantic constraint to singular thought in the context of Unger's (1980) problem of the many in just a moment. First, though, Dickie introduces the term 'atomic ordinary object' to refer to a composite of atoms which (a) meets the unity criteria associated with the traditional notion of an ordinary object, and (b) *almost* fills the boundaries which we would, pre-theoretically, have said are the boundaries of that object (2015: 31). While '…is almost identical to…' fails in general to express an equivalence relation (it is not transitive), it does do so *over the subdomain of atomic cats*—that is, the "objects which imprecisely fill the imprecise boundaries of a single [cat]" (2015: 33) and meet the unity criteria for being cats (2015: 32). These 'atomic cats', then, of which Unger (1980) argues there are *many*, form an equivalence class under the relation of *being almost identical to.* After all, atomic cats almost entirely overlap one another and are entirely indistinguishable with respect to their macroscopic physical properties.

Now we are only a simple application of Dickie's metasemantic constraint away from concluding that the subject matter of our ordinary thoughts putatively about Tibbles the cat are not about any individual atomic cat, but rather "the equivalence class of atomic [cats] that [Tibbles's] boundaries determine" (2015: 34). And Dickie concludes that this is the correct result. We *can* have singular thoughts about ordinary objects in the face of Unger's (1980) arguments, for those thoughts are, in any case, about equivalence classes of atomic ordinary objects…

My first concern with this effort to reconcile (ST) with Unger's arguments is that our ordinary thoughts turn out not to be about ordinary objects, but about 'equivalence classes'. When Alice perceptually attends to Tibbles and judges *He is ginger*, she is in fact thinking about an equivalence class. If by this Dickie means a set, the members of which are equivalent under the relation expressed by '…are almost identical to…' or '…satisfy all the same observational predicates as…', it is not at all obvious that this conforms to Dickie's methodology of starting with ordinary cases of singular thought (2015: 34). It turns out that there *are no* such thoughts to theorise about. Those thoughts are all about sets. And sets are not ordinary objects.

Although Dickie's metasemantic constraint uses the phrase 'the class itself', it seems fair to construe her claim as being that Alice's judgment is about *each of the members* of some equivalence class of atomic cats.[14] Now, if this claim is not to run afoul of her "uncontroversial" principle connecting aboutness and truth ("A thought about an object (a thought attributing a property to an object) is true iff the object has the property" (2015: 37)), then perhaps her view is that our ordinary cat-thoughts are *plurally about* many atomic cats. Of course, this would make the judgment *That is a many* true and *That is a single cat* false. Moreover, this now raises the question of whether atomic cats are *cats*—of whether Dickie accepts (MC)… Dickie (2015) expresses an intention to be neutral on the metaphysical issue as to whether or not there is just one cat in Tibbles's vicinity, and if so, how to defend this claim against Unger's argument (29). But only if atomic cats are cats—only if (MC) is true—do judgments like *That is a cat* stand any chance of being true, and only then does (ST) stand a chance of being preserved.

In short, the most charitable elaboration of Dickie's (2015) discussion of our intentional problem of the many appears to presuppose (MC), yet it does not give a clear recipe for generating the correct truth-conditions for perceptual judgments like *That is a single cat*. I hope that the way of reconciling (ST) and (MC) proposed in §3.1 may be read as a way of charitably doing justice to the general spirit of Dickie's thinking here. There is something right about the observation that our incapacity to discriminate between the many things on Tibbles's mat means we are in no position to have singular thoughts about one over any other. But how we are to cash this out exactly requires more careful elucidation. While it is unclear how to square the proposal in §3.1 with other

[14] As a precedent on which Dickie (2015) may be leaning, Lewis (1986: 50–1; n. 37) discusses using 'class' as a means of expressing plural quantification (though he makes a special note about the term 'equivalence class').

aspects of Dickie's (2015)—her 'uniqueness lemma' (2015: 52) plays a pivotal role in the book's argument but is hard to reconcile with (MC)—we can better address these issues once (MT) is explicitly out on the table, and doing this has been the central task of the present paper.

5 Objections

Part of the reason (MT) has not been a more prominent claim in the literature is arguably that it requires taking seriously the idea that there are not merely many cat-like lumps of matter in *C* but many *cats*. What I have suggested so far is that a natural way out of some vertiginous anxieties about whether (ST) is true is to adopt (MT) *if* one adopts (MC). However, there are a number of anxieties one might have about (MT). This section assuages the most pressing, securing a strong case for (MT) as an overlooked candidate solution to our intentional problem of the many.[15]

1. Isn't singular content meant to capture something like discriminative capacities with respect to the object in question? Doesn't this make it absurd to suggest one is capable of having e.g. perceptually-based singular thoughts about *each* of the many?

In setting up our intentional problem of the many, I asked: how can something be the 'direct subject matter' of a thought which is equally about a vast number of other objects of the same kind? How can a thought be 'singular' if it fails to 'single out' its object? There is no clear and obvious sense in which Alice is in a position to 'single out' or 'discriminate' each of the cats in *C*. If the capacity to think perceptually-based singular thoughts requires this, the truth of (MT) would seem to entail that Alice has no singular thoughts about any cats in *C*, for there will be no admissible interpretation of her perceptual-demonstrative thought-vehicle which assigns one of the cats to Alice's perceptual-demonstrative thought-vehicle.

[15] To be clear, so long as one accepts (MC), with or without constitution, the view proposed in §3.1 is available. A further alternative, for those inclined to take up Unger's conclusion that *there are no cats*—only lumps of matter—would be to conclude that nothing like tracking or reliable belief-forming dispositions is involved in (perceptual-demonstrative) singular thought; only an appropriate causal relation is required. From this they can adopt a version of the many contents view, noting that the subject bears an appropriate relation to the many lumps of matter. Applied to natural language, this view may find it harder to account for intuitive sameness of meaning in 'Tibbles' across time (and conversations) and for the truth of attitude and indirect speech reports.

Several writers have defended this sort of requirement on perceptually-based singular thought (Burge 2010b: 27; Schellenberg 2018: 13). Whether Alice's thought in *C* is eligible to be about each of the many turns on how we precisify such requirements. Schellenberg elaborates her demand by claiming that "it is unclear what it would be to perceive a particular without at the very least discriminating and singling it out from its surround" (2018: 25). This is said to involve "scene segmentation, border and edge detection, and region extraction" (ibid.). By any antecedently plausible degree of accuracy, Alice may have many of these capacities. She can differentiate each of the many from the rest of the environment (from the mat(s), the lamp(s), etc.). And, given how the many are related to one another, she is in a position to detect changes in each of their visible properties: change in the location, shape, orientation (etc.) of any one cat would go along with such changes in every other. Burge elaborates his version of this demand by claiming that for perceptual reference to an object the visual system "must isolate it by perceiving and perceptually attributing some aspect of it that distinguishes it from other elements in the environment" (2010a: 455, n. 39). If one reads 'all other' here for 'other', Alice is not in a position to do this.

Even if Alice cannot be construed as meeting the demands imposed by Burge and Schellenberg, it must be emphasized that these authors do not so much argue for these demands as leverage them from *a priori* reflection on paradigm cases of perceptually-based singular thought, inspected in a theoretical context insulated from the metaphysical concerns which have driven our investigation. If we take (ST) and (MC) seriously, we have good reason to re-inspect paradigm cases of singular thought and to develop a conception of the constraints on perceptually based singular thought which is compatible with (MT). Still, a reader attracted to Burge's and Schellenberg's accounts should bear in mind two further considerations, which I shall mention here in reply to the present objection.

First, there are *prima facie* counterexamples to Burge and Schellenberg's claims.[16] Take Ganzfeld cases for example, in which a subject's perceptual experience is simply a uniform, homogeneous visual field of a single hue (a 'space-filling fog'), or perhaps, in the auditory case, a uniform, incessant, monotonous 'wall of sound'. In Ganzfeld cases, there seems to be attentional perception without discrimination from other things in the environment. Second, some empirically-driven theorizing about the reference of subpersonal perceptual object-

[16] For discussion of other potential counterexamples, see French (2020) and Openshaw and Weksler (2020).

representations, leading on from the multiple-object tracking paradigm (Pylyshyn and Storm 1988; vanMarle and Scholl 2003), suggests that a perceptual object- representation *r* refers to some *o* iff *r*'s deployment is appropriately caused by *o* (Pylyshyn 2007). On this view, no representations of an object's features or location are implicated in the tracking mechanisms which determine the reference of the object-representation (or 'FINST'). These more liberal, causal accounts of reference-fixing are easier to reconcile with (MC) and (ST).

Second, taking (ST) and (MC) seriously does not mean that nothing broadly epistemic can be involved in singular thought—or, for that matter, perceptual object-representation. Consider the following proposal. For Alice to have perceptually-based singular thoughts about an object to which she is perceptually attending, it must be the case that the causal link in question provides a means for the formation of beliefs which reliably get that object's properties right (for at least those properties concerning which she is disposed to form beliefs on the basis of that link). This condition both introduces something epistemic in flavour to the aboutness-fixing story for perceptually-based singular thought and also preserves the claim from §3.1 that each of the many cats in *C* will be eligible to be the referent assigned to the subject's perceptual-demonstrative thought-vehicle by some admissible interpretation (and none of the many cats in *C* will be more eligible than any other). For this condition does not impose any uniqueness condition: it does not say that one must 'single out' the object of thought from all other things, for example. (And one needn't worry for the lack of such a condition about Strawsonian (1959) massive duplication: the further condition that there be an appropriate causal-informational link to the object whose properties the subject reliably gets right undercuts the parity in eligibility of ordinary objects and their potential cosmic duplicates.) Of course, this story requires elaboration, and here is not the place to do so. The key moral is that allowing Alice a singular thought about each of the many cats in *C* does not entail that we must give up on epistemically interesting conceptions of the requirements on singular thought.

2. If we allow singular thought in situations of abundance such as in case *C*, will we not misclassify other cases by making the requirements on (perceptually-based) singular thought too weak?

Consider the following scenario, paraphrased from Anscombe (1974): 'A stereoscope apparatus with two eye pieces is contrived such that two exactly similar matchboxes, A and B,

suitably placed in front of a subject with binocular vision appear as just one matchbox. Elizabeth puts on the apparatus and, so it seems to her, has an experience as of one yellow matchbox a few feet ahead which she is viewing with both eyes'. As Anscombe noted in her original presentation of this sort of case, "one can ask here, 'Which matchbox am I seeing?' and [we] ought to say that we see both matchboxes" (1974: 68).

Is Elizabeth in a position to entertain perceptually-based singular judgments about either of the matchboxes? If not, does the answer suggested in response to Objection 3 above fail to accommodate this judgment? The present objection may be construed as the challenge to find some difference between Anscombe's case and case *C* by virtue of which only the latter, and not the former, constitutes a case of perceptually-based singular thought.

Of course, one response would be to embrace Anscombe's thought experiment as a case in which the subject entertains many singular contents.[17] However, mental content is partly determined by subjects' dispositions to action: (Evans 1982: 168; 263); Hawthorne and Manley (2012: 18); Peacocke (1981)). Some representations have their semantic properties determined partly by facts concerning the thinker's dispositions to move to a place, or act upon an object, given various conative attitudes. Even if the experiment is set up so that one of the matchboxes, say A, is in the place where there appears to Elizabeth to be a (single) matchbox, if she is asked to pick up 'that matchbox she can see', Elizabeth will fail to pick up *B*. Her failure to do so will make it immediately apparent, from her resulting visual experience, that there are two matchboxes, or that some other trick is being played on her. In contrast, Alice's actions will be directed upon the many, each and all, whenever she strokes Tibbles, feeds Tibbles, picks up Tibbles, and so on.

6 Conclusion

In solving the metaphysical and intentional problems with which Unger (1980) presented us, we are somewhere going to have to make peace with counter-intuitive claims. I have argued that (MC) is much less revisionary than is generally assumed once we see how (MT) can be integrated with many natural claims, including (ST). Even if Unger was right to conclude that we are systematically

[17] I am not entirely unsympathetic to this claim (see Openshaw and Weksler (2020) for discussion). Note that, in light of our discussion of Objection 1, this view is unavailable to the likes of Burge and Schellenberg.

incorrect in our assumptions about the number of ordinary objects in our midst, it is wrong to assume that we are therefore in no position to have singular thoughts about ordinary objects—or, for that matter, that we are in no position to have the kind of everyday knowledge about these things we take ourselves to have.

I have clarified the picture of singular thought enshrined in (MT) and defended it from the most pressing objections. I have not sought to *endorse* (MC) or (MT) as such. My primary aim has been to understand the nature of our achievement in having singular thoughts if (MC) turns out to be a consequence of our best metaphysical theories. With that said, the inquiry's interest is not purely conditional on (MC)'s truth. As described in §2, analogous problems of abundance arise elsewhere, where fancy metaphysical footwork is of no use. In the case of perceptual-demonstrative singular thought about locations, times, or lumps of matter, that there are a vast number of equally eligible referential candidates is virtually undeniable. So there is independent reason to investigate views which reconcile plenitude with the capacity for singular thought. In that light, (MT) serves at the very least as a useful exemplar, and this paper's argument against the conditionals in (MC-ST), (ML-ST), and (MP-ST) is of broad interest and application.

The more general lesson, then, is that plenitude of one sort or another is a consequence of many metaphysical theories. And it ends up being the case that there is an abundance of most eligible referential candidates for our linguistic and cognitive representations. This paper has argued that we should be careful about mistaking this for an *objection per se*. It is important for future theorizing on metaphysical problems that we have a proper appreciation of what the costs and benefits of candidate views are. The clarification and defence of the 'many thoughts' view offered here serves as a useful precedent ahead of this theorizing.

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