

Propositions on the cheap

Alex Grzankowski¹  · Ray Buchanan²

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Abstract According to the classical account, propositions are *sui generis*, abstract, intrinsically-representational entities and our cognitive attitudes, and the token states within us that realize those attitudes, represent as they do in virtue of their propositional objects. In light of a desire to explain how it could be that propositions represent, much of the recent literature on propositions has pressured various aspects of this account. In place of the classical account, revisionists have aimed to understand propositions in terms of more familiar entities such as facts, types of mental or linguistic acts, and even properties. But we think that the metaphysical story about propositions is much simpler than either the classical theorist or the revisionist would have you believe. In what follows, we argue that a proper understanding of the nature of our cognitive *relations* to propositions shows that the question of whether propositions themselves represent is, at best, a distraction. We will argue that once this distraction is removed, the possibility of a very pleasing, minimalist story of propositions emerges; a story that appeals only to assumptions that are (or, at least ought to be) shared by all theorists in the relevant debate.

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✉ Alex Grzankowski
Alex.grzankowski@gmail.com

Ray Buchanan
raybuchanan@mail.utexas.edu

¹ Department of Philosophy, Birkbeck, University of London, Room G05, 30 Russell Square, London WC1B 5DT, UK

² Department of Philosophy, University of Texas, Austin, University of Texas at Austin, 2210 Speedway, Stop C3500, Austin, TX 78712, USA

1 Introduction

The classical account of propositions consists of two theses:

Sui Generis (SG):

Propositions are *sui generis*, abstract, intrinsically-representational entities.

Inheritance (I):

Our cognitive attitudes (*e.g.* our beliefs, desires, and so on), and the token states within us that realize those attitudes, represent as they do in virtue of their propositional objects.

On this view, often associated with the work of Frege and Russell, propositions are the fundamental bearers of intentionality; our mental states represent derivatively.¹ As of late, the classical view has come under considerable scrutiny. Recent criticisms have largely focused on a particular aspect of the first thesis—namely, the question of how, if at all, an abstract entity could itself represent (though, as we will see below, this recent work has entangled the viability of (SG) with the plausibility of (I)). Under the rubric of *the problem of propositional unity*, theorists such as Hanks (2015), King et al. (2014), and Soames (2010, 2014, 2015) have argued that it is mysterious how propositions, as traditionally conceived, could represent and this explanatory burden leads them to reject *both* theses of the classical view. According to these new wave revisionists, we *must* have a story about how propositions represent. By their lights, the best hope of achieving this is to claim that propositions represent as they do in virtue of facts about us, be it facts about our cognitive lives or language use. As is obvious, any such story will ultimately require us to give up both theses of the classical view. In the course of rejecting those theses, these theorists have then gone on to identify propositions with a wide array of more familiar entities such as facts, types of mental or linguistic acts (or operations), and even properties (of everything, or nothing).

The metaphysical story about propositions is much simpler than either the classical theorist or the new revisionist would have you believe. In what follows, we argue that a proper understanding of the nature of our cognitive *relations* to propositions shows that the question of whether propositions themselves represent is, at best, a distraction. We will argue that once this distraction is removed, the possibility of a very pleasing, minimalist story of propositions emerges; a story that appeals only to assumptions that are (or, at least ought to be) shared by all theorists in the relevant debate. More specifically, we argue that propositions are *abstractions* from (possible) mental state tokens that represent exactly the same.

As we will see in Sects. 2 and 3, the classical theorist and her revisionist rivals offer two very different pictures of the basis of intentionality. Whereas the classical theorist seeks to explain how the representational features of propositions could “trickle down” to our mental states, the revisionist has the burden of explaining

¹ This association with Frege and Russell has been emphasized by recent theorists such as Hanks (2015) and Soames (2010). We think it is highly doubtful that Russell ever held the view and we even have our reservations regarding the attribution to Frege, but we'll not pursue those issues here.

how the representational features of our mental states or our language use “trickle up” to propositions. We argue that neither strategy is promising. With the revisionists, we argue that the Classical View and the “trickle down” picture provided by Inheritance must be rejected. More specifically, we argue that the story about how our token mental states represent must be given independently of a story about propositions (Sect. 3). But once we see why the Classical View fails, the new wavers’ “trickle up” picture which wrongly seeks to explain how it is that propositions represent is, at best, unmotivated. Building on the idea that propositions need not themselves represent (Sect. 4), we then sketch our own favored, minimalist account of propositions; an account that has all of the virtues, but none of the vices, of the trickle down/up pictures it seeks to replace (Sect. 5).

2 Propositions and the essentiality of content

Propositions are (perhaps among other things) devices for categorization. They allow us to capture representational similarities and relations holding amongst representations such as sentences, beliefs, and so on. For example, two speakers can say the same thing by uttering different sentences, perhaps one in English and the other in French. The two distinct sentences which represent the same things as being the same way express the same proposition. Propositions allow us to draw out similarities by abstracting away from the specific representational media (in this case, token sentences of distinct languages). And the same goes for the attitudes. You might *believe* what someone else *said*. The propositional objects of the propositional attitudes indicate when a pair of mental states represent the same as each other.

But when it comes to propositional attitudes, such as our beliefs, the relationship between the representational features of those states and their propositional contents is a very tight one, tighter than, say, a merely conventional indication.² Indeed, it is often claimed (without further elaboration) that the content of a “mental state” is essential to it. The import (and plausibility) of such a pronouncement depends on getting clearer on whether we are discussing mental state *types* (e.g. *the* belief that pugs snore) or mental state *tokens* (e.g. *a* belief that Carla snores, such as Oscar’s particular belief to that effect). When offered as a thesis about state types, the thesis should be uncontroversial if not trivial. As David (2002) points out:

A belief-state type is a complex (relational) property composed of the belief relation and a proposition which is the content of the belief-state. Belief-state types ought to have their contents essentially on the principle that complex properties have their constituents essentially (whatever that precisely means).
(David 2002, p. 109)

² The view that we will ultimately suggest has much in common with those accounts that take propositions to be ‘external indices’ that measure our PA-states in much the way that, for example, numbers can be used to measure certain physical quantities on the ‘mass-in-grams’ scale. See Matthews (2007). We reject these views precisely for the reason that they are incompatible with the essentiality of content thesis. See also Crane (1990).

But suppose we are talking about token-states conceived of as, say, functional/neurophysiological states. It is certainly *not* essential to any functional or neurophysiological state that might realize or be identical to a token mental state that it represents anything. It is a contingent matter that such a state-token represents at all, much less that it somehow represents by its very essence.

Nevertheless (contra David) we think the following claim regarding token-states *is* true and non-platitudinous: For any mental state *m* which has *P* as its content, it is essential to *P* that it is *m*'s content. Call this claim *the Essentiality of Content Thesis* ('(EC)' for short).³

(EC) deserves further comment. If it is contingent that *m* represents at all, why should we think that if *m* represents Carla's snoring, then it is essential to the proposition that Carla snores that it is *m*'s content? For example, why should we think that if Carla's token belief *b* contingently represents Carla's snoring then it is essentially the case the proposition that Carla snores is *b*'s content? If there is puzzlement here, it stems from thinking that the truth of (EC) somehow flows from the essence of token mental states. But the order is in fact the other way around; i.e. the truth of (EC) flows from the nature of the propositional content. So, although it is not in the essential nature of *b*, taken on its own, to represent, it is, we claim, in the essence of the proposition in question to be correlated with any state that so represents. That is, *it is in the nature of a proposition to be essentially correlated with any mental state token that contingently represents in an appropriate way*. This is compatible with the fact that *b* taken "on its own" may have had a different content or no content at all (if, for example, *b* had been in a petri dish, rather than functionally embedded in Oscar). Though it is contingent that a token state represents at all, given that it represents the way it does, the proposition that is in fact it's content couldn't have failed to be so.⁴

(EC) is important for a number of reasons. First, it secures the idea that propositions serve to categorize or classify token mental states in terms of how they (contingently) represent things to be. Second, it places a demand on metaphysical accounts of propositions—namely, whatever else propositions are, they must answer to (EC). This rules out the possibility that propositions are *merely* conventional devices for representational categorization.

But what could propositions be such that the truth of (EC) is secured? In order to make some headway on this question, we first need to get a bit clearer on the nature of our propositional *attitudes*.

Propositional attitudes relate subjects to propositions, but a mere relation to a proposition does not a propositional attitude make. Mary is presently related to the proposition that it is time to buy more milk. She is in the following relation to it: she has

³ In what follows, we will move freely between talk of propositional attitude/mental state tokens and types, though context should make clear which is at issue. We will use lowercase italicized schematic letters (e.g., '*m*') as variables ranging over mental state tokens.

⁴ A full discussion of EC would require us to say much more about how exactly we are thinking of mental state tokens. Hopefully, however, the intuitive appeal of this thesis is clear. By way of comparison, consider the essentiality of origin. Rosa is Carla's mother but of course it is not *essential* to Rosa that she had Carla as an offspring. It is however in Carla's essence to have the very mother she has—more generally, for any mother-daughter pair $\langle X, Y \rangle$, it is essentially the case that *X* is the mother of *Y*. This fact flows from the essence of daughters, not mothers.

a slip of paper on which a sentence that expresses it is written. One might suggest that what is needed is a *mental* relation to a proposition. But even this is insufficient. Misunderstanding the way abstract objects interact with us, one might come to irrationally fear a proposition. But to stand in this relation of fear to a proposition isn't obviously to be in a propositional attitude state. What's gone wrong in both the case of fearing a proposition and the case of the list is that the proposition is *irrelevant* to any representational features *of the thinkers* to whom they are related.

If we could help ourselves to the view that propositions themselves are representational, then we could claim that propositional attitude relations are such that thinkers who bear them to propositions represent exactly what the proposition represents. This would allow us to explain, for example, why it is that if one believes that *p*, if *p* is true, things are as one believes them to be and if one hopes that *p*, if *p* is true, things are as one hopes them to be. More importantly, we would be in a position to explain the truth of (EC): if part of *what it is* for a state token *m* to be a propositional attitude is for there to be a proposition *p* such that *m* represents the way *p* does, then it is no surprise that *p* couldn't but help being the content of *m*.

If this sketch of the nature of propositional attitude relations just offered is agreed upon, it's clear that we'd need a theory of propositions according to which *they* represent and we'd need a story about why it is that our bearing certain relations to them guarantees that *we* represent in a particular way. On this line, 'representing-the-same-as-a-proposition' is the key to understanding the relation between our propositional attitudes and their propositional contents.

The proponent of the classical theory might be especially tempted by this represents-the-same- story. On this view, propositions are *sui generis*, abstract, intrinsically-representational entities that are the objects of our cognitive attitudes (SG), and those cognitive attitudes represent as they do in virtue of their propositional objects (I). (I) plays a crucial role when it comes to making sense of (EC). According to the classical theorist, in order to be in a representational mental state such as a token belief-state that represents that Mary sings, one must, among other things, "grasp" an abstract entity that itself, independently of us, represents that Mary sings. Moreover, it is *by virtue of* being appropriately related to a proposition that creatures like us represent anything at all. By *inheriting* the representational features of propositions, our token representational states couldn't help but have the very propositional contents that they do.

That's one way we might link propositions and thinkers. That is, we might think of the representational properties of propositions as "trickling down" to thinkers. But recent criticisms point out that we have been given no story whatsoever about how it could be that propositions represent at all, and given what's just come above, this should strike one as worrisome. New wave revisionists aim to provide a new metaphysics of propositions that, as we will see in the next section, relies on a "trickle-up" view.

3 New wave revisionism

New wave revisionists, such as King et al. (2014), Hanks (2015), and Soames (2010, 2014, 2015), are motivated in large part by their dissatisfaction with the claim that propositions are themselves intrinsically representational, *sui generis* entities. For these theorists, the claim ‘that propositions *represent* ... is something that needs to be explained’ (King et al. 2014, p. 47). As King elaborates:

‘According to [the classical view], propositions have truth conditions by their very natures and independently of minds and languages. But no one has ever been able to explain how *anything* could have truth conditions by its very nature independently of minds and languages. Thus, [the classical view], leaves something unexplained very much in need of explanation’. (King et al. 2014, p. 47)

These revisionists presuppose the classical view is correct in taking propositions to represent, but balk at the thought that they could be *intrinsically* representational. The fundamental difficulty regarding the metaphysics of propositions is ‘to explain what propositions are in a way that makes clear how they can have the intentional properties they do.’ (Soames 2014, p. 26). The attempt to answer this question has led to a number of very surprising claims regarding what propositions might *really* be.

According to the revisionists, the key to solving this problem is to appreciate that when it comes to representation, propositions are not explanatorily basic—the Inheritance Thesis (I) must be rejected. For example, despite their substantive disagreement elsewhere, Hanks, King, and Soames all agree that our best bet for explaining how it is that propositions represent is to reject (I) and, instead, start from facts about our mental life or language use. In contrast, to the “trickle down” picture of intentionality of the classicist, we are offered a “trickle up” account.

For example, consider act-type accounts such as that of Hanks (2015) and Soames (2010, 2014, 2015). As Hanks nicely puts it, the story about how a proposition represents is to be ‘found in the acts of representation we perform when we make judgments and assertions’:

More precisely, the source is to be found in acts of *predication* through which, in the simplest cases, people attribute properties and relations to objects. The explanation for why propositions have truth conditions must appeal to these acts of predication. (Hanks 2015, p. 4).

Soames (2010, 2014, 2015) agrees and argues that we must explain the representational features of propositions via appeal to *independently* representational acts of predication. Though these two ‘act-type’ theorists disagree in matters of detail and emphasis, they agree that propositions are, in effect, devices for categorizing our (independently) representational activities rather than entities which explain how, or why, those representational activities themselves represent. Moreover, both ultimately seek (a) to *identify* propositions with types of acts of predication and (b) to argue that our most basic cognitive contact with propositions

is via performing the relevant actions which are tokens of the types which *are* propositions. For example, the proposition that Oscar snores is identified with the act-type of predicating the property of snoring to Oscar; an agent's *judging* (Hanks) or *entertaining* (Soames) just is a (token) performance of that predication. These claims, (a) and (b), are offered in the service of explaining how it is that propositions represent and these theorists claim to have an attractive story. For example, Soames (2015) suggests that much as a foolish type of activity is foolish because all conceivable tokens of that act type are foolish, propositions are representational because they are types, all whose tokens are themselves representational. So by appealing to the natural idea that propositions serve to type or categorize representations, act-type theorists go on to claim that propositions *are* types and, in turn, offer a way of understanding how those types might themselves be considered representational.

Notice how the foregoing story relates to (EC). On the classical account, (I) played a crucial role in explaining (EC) but for the new wave theorist, (I) has been given up. In its place, the type-token relationship comes to the rescue. On such an account, one might claim that to stand in a PA-relation to a proposition (an act type) is to token it. That is, to perform a token act that itself represents just as the type of which it is a token is claimed to represent. For example, Mary's (token) state of predicating snoring of Oscar just is her entertaining, or judging, that Oscar snores. By virtue of so tokening, Mary's representational state couldn't help but have the content that it does.

The revisionist approach that we have just been considering has two important parts. First, the view aims to replace (SG) by offering a new metaphysics of propositions. Second, the view denies (I) in the service of offering that new metaphysics. That new metaphysics, in turn, is in the service of explaining how propositions represent. Like the classical theorist, however, the revisionist might accept the 'represents-the-same' story from earlier and thereby retain the needed intimate connection between propositions and the mental states that have them as their contents.

These act-type accounts might look like an attractive option given our rough statement above. There are, however, numerous worries. For example, is it really plausible to think that propositions are literally things that one can do or that can happen? Whereas Carla might perform the act of going to the store, and that act (token) might occur on Wednesday at noon, can she perform the proposition that Oscar snores? Or could the proposition that Oscar snores occur at noon?⁵ More

⁵ See Soames (2010, pp. 101–102). In Soames's more recent work (2015) he explicitly considers, and rejects, this style of objection to the act-type account. Soames first attempts to give a diagnosis for why it is tempting to think that propositions could not literally be things we can do or things that can happen. He then argues that, given the other virtues of the act-type account, his favored error theory should be accepted (see especially pp. 209–215). His diagnosis is interesting and draws on points with which we are generally sympathetic, but we think it would be preferable, if possible, to avoid attributing wide-spread error in the first place. Our view (below) captures many of the benefits of the act-type views without the need for any such error theory. For those who think that it doesn't simply *seem* false that propositions are things one does (or that happen) but rather think it *is* false, we hope to offer a more attractive alternative. Thank you to an anonymous referee for drawing our attention to Soames's most recent reply.

seriously, one might worry about the plausibility of the claim that propositions *qua* act-types themselves represent because their tokens do. Types—of actions, or otherwise—need not inherit all (or any) of the properties of their tokens (for example, the type of being a red thing is not itself red). So what guarantee do we have that propositions *qua* types inherit the representational properties of their tokens?^{6,7}

Though we have many reservations regarding these revisionist alternatives to the classical theorist's thesis (SG), we don't want to dwell on them here. Rather, we want to emphasize what we take to be the most important insight of these theorists—namely, that we should give up (I). For Soames and Hanks giving up (I) is part and parcel of their attempt to give a “trickle-up” explanation of how propositions could themselves represent. But we think that *everyone* ought to give up (I), even those theorists who think propositions are intrinsically representational. In fact, the implausibility of (I) is separable from the issue of propositions representing.

Our reasons for giving up (I) begin with the familiar observation that our mental states are causes. For example, Carla's going to the fridge might be *caused*, at least in part, by her desire that she have some beer and her belief that by going to the fridge she can get some beer. This datum is borne out by the fact that the explanations (and predictions) we offer of the actions and behavior of ourselves, and others, almost invariably make reference to such mental states: Carla went to the fridge *because* she desired such and such. These familiar considerations suggest that our token PA-states are themselves physical states.

But how might we now connect this point about our, say, beliefs being representational physical states to the thesis that they represent by virtue of their relation to abstracta? In fact, the proponent of (I) who accepts (EC) would have to demand something even stronger—namely, that our mental states represent *in virtue of, and in just the same way as*, the abstract propositions which are their contents. But we, along with many with physicalist leanings, find this very mysterious. How could it be that an abstract object with representational property F makes it the case that a token physical state has F too? More generally, how could an abstract object bestow *any* of its properties on the physical world? While many, if not all, of our token mental states represent, it is mysterious how they could do so *because* of their propositional contents.

Though we do not have a specific positive account to offer on how, exactly, token mental states come to represent as they do, we strongly suspect that the story will—à la Fodor (1987), Millikan (1984), and other would-be naturalizers—involve complex relational, causal facts regarding agents and their environments. But even if you find those commitments implausible (perhaps you prefer a *sui generis* account of our representational activities or an account put in terms of, say, phenomenology), the important point can be made in more general terms. The foregoing worries about (I) strongly suggest that the metaphysical story regarding how our PA-states represent *must* be given independently of any ineliminable appeal to propositions. In

⁶ See Caplan et al. (2014).

⁷ See also Collins (2018) and Keller (2017) for further worries.

slogan form, *mental representation must come first in the ontological order of explanation*. New wave revisionists (albeit for different reasons) agree. But interestingly, once one starts down this path it becomes less clear why it is important that propositions represent. We turn to that issue in the next section.

4 Must propositions represent?

In the dialectic between classicalists and revisionists both parties agree that propositions represent. It is clear why classicalists, must hold onto that commitment since the representational features of propositions explain how it is that mental states represent—the representational features of propositions “trickle-down” from Platonic heaven through channels of grasping or rational intuition. For act-type theorists, a similar connection is present but it is a “trickle-up” model that exploits the type-token relation. On both views, representers are brought into coordination with the content of their representations. On both views, we and they *represent the same* and this gives us a foundation upon which to explain why propositions are so intimately coordinated with our mental states that have them as their content (EC).

But once we have given up that propositions are the primary representers, would it be so bad if we let fall away the idea that propositions represent? Might we not follow Soames in taking propositions to be entities which type our mental states according to how they represent but without taking the types themselves to represent? If this is possible, we could avoid the question of how it is that propositions represent. This is tempting, but if the Essentiality of Content thesis leads us to hold that propositional attitude relations are those relations that hold between propositions and thinkers when *they represent the same as each other*, propositions must represent. That’s what both the trickle-up and trickle-down pictures guarantee. But why endorse the represents-the-same view of propositional attitude relations? To see that this is optional, consider some alternative ways of fleshing out what propositional attitude relations might be.

Suppose ‘Mary hopes that Kristin Otto swims’ is true. Plausibly, that sentence is true if what ‘Mary’ refers to and what ‘that Kristin Otto swims’ refers to are related by the semantic contribution of ‘hopes’. Let us ask then, under what conditions are Mary and the proposition that Kristin swims related such that it is true that Mary hopes that Kristin swims? Given what came in Sect. 2, we might want to say that Mary must be in a state which represents the same way as the proposition. Moreover, Mary’s representing must itself be a *hoping* rather than say a *believing* or a *desiring*. So we might reasonably take the semantic contribution of ‘hopes’ to be a two-place relation: ___ is in a *hoping*-state which represents same way as ___ (and it is easy enough to see how to make a semantic descent to return to the metaphysics of the propositional attitudes).

We’ve just relied on propositions representing but suppose one thinks that propositions are sets of worlds, functions of some sort, tuples of objects, properties, and relations, or perhaps tuples of Fregean senses. Let us again “solve for the value of the verb.”

Suppose that the proposition that Kristin swims is the set of all and only those worlds in which Kristin swims. Sets don’t represent, but what, for present purposes, would be lost if the view unfolded as follows:

Under what conditions are Mary and the proposition that Kristin swims (*i.e.* the set of relevant worlds) related such that Mary hopes that Kristin swims? Plausibly, Mary must be in a state which represents the world as being that way which is in common to all the worlds in the set: ___ is in a hoping-state which represents the world as being the way common to all the worlds in ___.⁸

Or what if we thought a proposition was a property as recently suggested by both Jeff Speaks (2014) and Mark Richard (2014). Richard, for example, would identify the proposition that Kristin swims with the property of being a situation in which Kristin instantiates the property of swimming. What would be lost if we then held the semantic contribution of ‘hopes’ to be as follows: ___ is in a hoping-mental state which represents the world as being the way a world is when it instantiates ___.

If propositions were taken to be tuples, things are slightly more complicated since the relation designated by ‘hopes’ would have to be a multigrade relation in order to accommodate the fact that some propositions are more complex than others, for example, ordered triples rather than pairs. In our simple example, for Mary to stand in the relation designated by ‘hopes’ to a tuple such as < Kristin, the property of swimming > is for Mary to be in a hoping-mental state which represents the first member of the pair as instantiating the second member of the pair. And why not take the proposition that Kristin swims to be the pair in reverse? That is, the pair < the property of swimming, Kristin >. No reason. If that’s what you think the proposition is, then the relation designated by ‘hopes’ is ever so slightly different as well. As far as serving to categorize what’s represented, either will do.

There are two important lessons we want to draw from our discussion of the foregoing options. First, whether some entity or other can “play the role” of propositions will depend not only on the nature of those entities but also on the nature of the relation we bear to them. Propositional contents and our propositional attitudes must be brought into coordination (recall EC), but because we have two moving parts, there’s quite a lot of freedom. Second, we don’t think that the right conclusion to draw is a skeptical one or one grounded in an arbitrary choice. Rather, as we will see in the next section, from the above options concerning propositions and the attitude relations, we can distill something common that all theorists can accept. And from this commonality, a minimal view of propositions will emerge.

5 Minimal propositions

In ‘Attributions of Meaning and Content’, Field suggests that propositions and other intentional entities are ‘harmless’ if ‘construed in a sufficiently bland way’ (166). More specifically, Field suggests that propositions are unproblematic if they can be ‘introduced in more or less in the way that Frege introduced directions on the basis

⁸ This is not to say that sets of worlds might not falter on other fronts. For example, they may still not be finely grained enough.

of lines' and if we are careful to not attribute to them properties that are 'not licensed by this method for introducing them' (166).⁹ We agree.

Before we can appreciate the plausibility of Field's suggestion, let's first return to the essentiality of content thesis (EC)— the thesis that for any mental state m which has P as its content, it is essentially to that P it is m 's content. While we saw that one way to explain the truth of this thesis relied on the relation of representing-the-same (which in turn requires that propositions themselves represent) in tandem with either the "trickle-down" picture or a "trickle-up" picture, we think that things can be distilled a bit further.

Suppose for the sake of argument that it is true that what it is to bear a propositional attitude relation to a proposition is to be in a state which *represents the same as* the proposition that is its content (call this claim 'same'). From **same** we can derive the following (where m_1 and m_2 range over possible, token mental states):

PC: The propositional content of mental state m_1 = the propositional content of mental state m_2 iff m_1 and m_2 represent exactly the same properties, objects, and relations in exactly the same way.¹⁰

To see that **PC** follows from **same**, assume for reductio that **same** is true but **PC** is false, that is, that there are two mental state tokens which represent the same things as being the same way but which fail to have the same propositional content. It's a short step from these assumptions to the negation of **same**, since if m_1 and m_2 represent exactly the same as one another, yet have different propositional contents, then at least one of m_1 or m_2 must represent differently than does its respective propositional content, contra our assumption that **same** is true. **PC** is also false if two of our mental states have the same propositional content but represent different things or represent the same things differently. But by **same**, those states have different contents, and so again we reach a contradiction. If **same** is true, **PC** is too.

But we think, for reasons given above that **same** is optional. Moreover, **same** is better avoided since avoiding it allows us to sidestep any demand for a substantive story about how it is that propositions represent. Notice that **PC** says nothing about *propositions* representing and since we doubt that there is, or could be, any explanation about how it is that they do, this is a noteworthy advantage in the

⁹ More specifically, Field (2001, 2016) suggests intentional entities might be abstracted from equivalence classes of synonymous expressions/sentences or "inner" correlates thereof. Also see Wrigley (2006) as well as Iacona (2002) for a discussion of how one might try to abstract propositions from sentences that mean the same. We agree with Wrigley that there are serious difficulties for any view that seeks to abstract propositions from linguistic entities such as sentence-types. Our own is not subject to the specific worries that Wrigley raises in his excellent paper.

¹⁰ Representing things 'in exactly the same way' is neutral on issues about the fineness of grain of the representational features of our mental states. Two theorists might both accept **PC** despite serious disagreements over how finely our mental states themselves represent. For example, some theorists might take the representational aspect of our mental states to concern only which objects and properties are represented; others, of a more Fregean bent, might disagree insisting on modes of presentation. The truth of **PC** does not settle this matter, nor should it. As will emerge below, **PC** serves to guarantee that the propositions are individually tied to any possible fact regarding representational sameness, or difference, *whatever* those facts turn out to be.

present debate. What **PC** guarantees is that when a pair of mental state tokens are representationally the same, they will be related to the same proposition. But, first pass, **PC** tells us effectively nothing more about propositions than that they are those entities which pairs of our mental states that represent the same as each other are both related to.

We believe that **PC** ought to be a fixed point that everyone in the debate over the nature of propositions can agree upon. We just saw how **PC** follows from a commitment to **same** but it is trivial to see how **PC** can also be derived from a theory according to which propositions are tuples, sets, properties or so on provided that those views are paired with a sensible theory of the relations we stand into those entities when we are in propositional states that have them as their contents.

With **PC** as common ground, we have almost everything we need for a pleasing, minimalist conception of what propositions could be. Fleshing this out requires a proper understanding the import and status of **PC**.

First, **PC** is true and perhaps even platitudinous. And notice its platitudinous nature is not due to its being implicitly circular. Given our earlier arguments against the Inheritance Thesis, we think it should be clear that the metaphysical story regarding how possible mental state tokens represent as they do need not itself make *essential* appeal to propositions. For example, reconsider the act-type theorist from Sect. 3. According to this theorist, a token act of entertaining, or judging, that *a* is *F* just is predicating *F*-ness of *a*.¹¹ This complex representing is explained in terms of the more basic notions of representing objects and properties along with a mode of combination such as predication. Given the resources of the act-type theorist, we might say that two token states, *m1* and *m2*, represent exactly the same just in case an agent, in having *m1* or *m2*, must make the same predications of the same objects, properties, and relations in the same way. Proceeding in this way, one can say what it is for two mental state tokens to represent the same without essentially appealing to propositions.¹²

Of course, one need not follow the act-type theorists in order to appreciate this point about the non-circularity of **PC**. After all, it is plausibly a *contingent* matter that a particular mental state token (e.g. a neural state) represents as it does. While there might be a significant amount of disagreement regarding what exactly this story is contingent upon—be it reliable indication, teleological function, functional role, or so on—it should be agreed that whatever the story is, telling it will not essentially require appeal to propositions.

Second, from **PC**, it follows that there are propositions given that the singular terms appearing on the left-hand side ('the propositional content of *m1*') must refer (or denote). Indeed, it should be obvious to anybody who thinks that there are mental states that represent the same, that propositions exist. The existence of propositions is cheap.¹³

¹¹ A similar thought can be found in a Multiple Relations Theory as advanced by Moltmann (2003).

¹² And as Rumfitt (2016) points out, we don't need 'that'-clauses to speak about how an agent is representing either. We might, for example, specify how Carla's belief represents by saying 'Oscar, Carla believes, snores,' or 'Oscar snores, Carla so believes'.

¹³ Peacocke (1992) considers, but quickly rejects, an account of propositions based on **PC**. Peacocke claims that a "Wright-like" bi-conditional can't serve to ground the ontology of propositions because

We strongly suspect that most contemporary theorists working on propositions would agree that **PC** is true. They would, however, attempt to go on and tell us much more about the underlying, more hidden nature of the entities referred to in it. Perhaps, they would go on to tell us that the things referred to on left-hand side of **PC** are act-types (Soames/Hanks), complex facts concerning the semantic values of linguistic expressions and their compositional arrangement (King), sets of possible worlds (Stalnaker), or properties of a special sort (Speaks/Richard). But, in our view, these attempts are unmotivated since we doubt that propositions are the sorts of things that could have any such further hidden nature to discover.

By our lights, **PC** is not just one truth, among others, regarding the nature of propositions. Rather, we claim that **PC**, in tandem, with the falsity of the Inheritance thesis, provides the foundation for a pleasing, minimalist account of propositions.

In order to see what we have in mind, first consider two other much discussed abstraction principles with important roots in Frege (1884):

- (a) The direction of line A = the direction of line B iff A and B are parallel.
- (b) The # of Fs = the # of Gs iff there is a one-to-one correspondence between the Fs and the Gs.

According to neo-Fregeans, such as Hale and Wright (2001), these biconditionals are necessarily true, seemingly a priori, and analytic. Moreover, these biconditionals seemingly suffice to show that these abstracta—directions and numbers—appearing on their left hand sides are no more metaphysically or epistemologically suspect than the resources appealed to on their right hand sides.¹⁴ We agree with this much, but, following Rosen and Yablo (Unpublished), we think it is crucial to emphasize that abstraction principles such as (a) and (b) *not* be understood as providing a merely stipulative, *verbal* definition of the relevant functions appealed to in their left-hand sides. We agree with Rosen and Yablo that such a construal cannot plausibly capture the idea that, for example, the truth of (b) reveals that there is no more, and could be no more, to direction than is ‘set out’ in the principle (*ibid.*, pp. 2–3). Rather, such definitions teach us everything there is to know about what it is for a thing to be a number or direction; they are a species of real definition. As Rosen and Yablo nicely put it:

Footnote 13 continued

(a) if m_1 and m_2 only range over actual empirical mental states, we can’t get enough propositions, but (b) if they range over all possible token mental states – as we would have it – we must make “antecedent” appeal to the ontology of concepts and propositions (pp. 101–105). As indicated in the text, we see no good reason for thinking the story of how a possible mental state represents must make ‘antecedent’ appeal to propositions.

¹⁴ There is a large literature on what it takes for such biconditionals to be successful in introducing entities into our ontology. See, for example, Hale and Wright (2001). For present purposes, note that **PC** is seemingly *consistent* and *conservative* with respect to the underlying facts regarding the mental states over which we are abstracting. Roughly put, to say that an abstraction principle is conservative is to say that ‘it entails nothing new about object’s other than the referents of terms in [its] left-hand side’ (Rayo 2005, p. 227, fn. 51). On this front, **PC** looks no more suspect than (a) and (b).

If we understand [b] correctly, we come away knowing that “#” can only stand for a function whose real definition is exhausted by the fact that it satisfies Hume’s Principle.... Of course, one can’t be sure, to begin with, that there are functions like this. But if there are - call them essential numerators - then there is no question of what their natures are, since their natures flow from their definitions and their definitions are settled. To put the point in epistemic terms, if a function is an essential numerator then anyone who knows that it is an essential numerator and knows what it is for two bunches of things to be equinumerous is thereby in a position to know all there is to know about the function’s nature. (ibid. p.11).

Likewise, we think **PC** should be understood in just the same way. If one understands **PC** and knows what it is for two things to represent exactly the same, then one is in a position to know everything that there is to know about the propositional-content-of function and, moreover, one thereby knows everything there is to know about propositions since every proposition is the content of some or other possible mental state. So, **PC** isn’t just a true biconditional concerning propositions. Rather, *it is a real implicit definition thereof*.¹⁵

To reiterate, **PC** doesn’t itself immediately license any characterization of propositions as representing anything. It only explicitly mentions *mental* representations. But propositions themselves don’t need to represent to play the role asked of them in a theory of mind, and we see no reason here to move beyond **PC**. In Sect. 4, we considered views according to which propositions were non-representational entities such as properties or sets and we saw that, provided that the attitude relations were construed in a certain way, those entities could play the explanatory role of propositions just fine.

So what exactly are propositions if their roles could be played by many different things? Our view is that although sets, properties, tuples, and so on could play the role of propositions, we have no reason to favor one choice over another and so none of these entities *are* propositions. Propositions can be *modeled* by sets, properties, and so on, and the attitude relations can then be modeled by the relations offered earlier. But we think that what propositions really *are* is just what’s in common to all those options and that point of similarity is given by **PC**. Propositions *just are* abstractions from equivalence classes of mental states which represent exactly the same as each other.¹⁶

¹⁵ We owe this terminology to Jon Litland.

¹⁶ Though Field’s discussion of these matters is one of our primary sources of motivation, he would almost certainly balk at our proposal in the text given his worries regarding whether we can make determinate sense of an interpersonal notion of *having the same content* as an equivalence relation in the way needed for an approach of the sort we favor (Field 2016) (and see Rumfitt 2016 for a related worries). In large part, his skepticism is based on (i) Quinean worries about translation between languages of radically different structure, or in which the relevant speakers vary dramatically in their background theories, and (ii) that in our ordinary practice of attributing content, we seem to be primarily interested merely in *approximate similarity* of content, rather than the more strict equivalence relation we appeal to in **PC**. Regarding (i), we think that Quinean considerations show, at most, that *representing exactly the same as* is vague; not that there is no such relation. Accommodating this vagueness on the minimalist account might be accomplished by supervaluating over the relation of representing-exactly-the-same, but

In light of the foregoing, we are also now in a position to say what it is for a subject to stand in a propositional attitude relation to a proposition. When one is in a PA-state, one is in a state of a certain sort which represents in a certain way. So, when a subject, say, has a belief that p , the subject is in a belief-state which represents the same way as all other states from which the proposition that p is an abstract. Put schematically as before: $_$ is in a PA-state which represents the same way as all other states from which $_$ is an abstract.¹⁷

Let's now return to EC. Recall that according to EC, for any mental state m which has p as its content, it is essential to p that it is m 's content. This was something that the classical theorist was in a good position to explain and we believe that we are in just as good a position. Earlier we pointed out that classical theorists can argue as follows: if part of *what it is* for a state token m to be a propositional attitude is for there to be a proposition p such that, m represents the way p does, then it is no surprise that p couldn't but help being the content of m . Our view allows for a similar explanation but without the commitment to propositions representing. On our view, a token propositional attitude state m has p as its content just in case m is in the equivalence class of state tokens from which p is an abstract. But if that is what is required in order for m to have p as its content, it follows that p could not fail to be the content of m (or any other state-token that represents the same). That is, given that m represents as it does, and is, hence, in the relevant class of tokens from which p is an abstract, p must be the content of m . Plausibly, this necessary truth about p flows from the nature of p itself.¹⁸

Footnote 16 continued

showing how this might go is work for another day. Regarding (ii), we are happy to entertain the possibility that our ordinary attributions of content are justified by facts about (1) representational *similarity* rather than (2) exactness in co-representation. As best we can see, (1) is only sensible if we can antecedently make sense of (2); moreover, we think there are compelling independent arguments for the existence of propositions and it is only in terms of (2) that we can implicitly define these entities. That being said, we agree with Field that the notion of proposition is no more (or less) determinate than the notion of representing-the-same.

¹⁷ As Jon Litland has shown us, we can flesh out this idea as follows: Suppose we have a set of states S of an agent. These states are individuated functionally (or one might instead look to internal constitution or phenomenology, to name two other candidates). We then have two equivalence relations on S : the *co-representationality* relation, $\approx P$, and the *co-attitudinality* relation, $\approx A$. Two states can be co-attitudinal without being co-representational and vice versa. On the basis of $\approx P$ and $\approx A$, abstraction principles can then be laid down for two operators P and A such that P takes a state s and gives us an object – intuitively the proposition that is the content of s , whereas A takes a state and gives us the relevant PA-relation. Roughly put, the idea then is that in terms of these two abstraction principles, we can say that a thinker bares PA-relation F to the proposition p iff she is in a state that is both in the equivalence class of all states co-attitudinal with F , as well as in the equivalence class of all states that represent p .

¹⁸ Strictly speaking neither we nor the classical theorist are in a position to *derive* the essentiality claim. Nevertheless, we think that all parties are in a reasonably good a position to motivate the acceptance of EC given the tenets of their respective views. Both accounts can establish that it is a necessary truth that a token mental state with such and such representational features couldn't but help having the content that it does. In order to motivate EC, both theorists should then argue that this necessary truth plausibly flows from the nature of p itself, from facts about p 's essence, in conjunction with the nature of the attitude relations one bears to it. In the present dialectic, we are happy to be on a par with the classical theorist in this regard.

Call the foregoing sketch of propositions and our relations to them *Minimalism*. We think that Minimalism tells us all that is of interest regarding the metaphysics of propositions. But even if you aren't yet convinced of this, we hope that you will agree that our starting point, **PC**, ought to be accorded a default status. This necessarily true biconditional is (or at least ought to be) common ground among all theorists in this debate. But given our neo-Fregean sympathies, we think **PC** provides all that is needed to understand what propositions *are*. As such, we claim that any commitment that goes beyond that which is licensed by Minimalism needs to be argued for.¹⁹

In Sect. 2, we noted that one of the central reasons for countenancing propositions is that they provide us with a means for categorizing mental states in terms of how they represent the world as being. Minimalism is obviously tailor made to account for this. Although propositions don't themselves represent, they are nevertheless *essentially* abstracts from states that do. As such, if one knows what the propositional content of an agent's PA-state is, one thereby knows how the agent in that state represents the world as being.²⁰

Moreover, we think that Minimalism can easily re-capture many of the additional features propositions have traditionally been assumed to have. For example, propositions are often claimed to be not only the objects of our PA-states but also the things expressed by literal utterances of context-insensitive, unambiguous declarative sentences. We have no difficulty capturing this: on our view, to say that such a sentence *S* expresses a proposition *p* is just to say that a literal utterance of *S* would (roughly put) conventionally indicate a belief-state that has that proposition as its content.

Likewise, propositions are sometimes claimed to be the referents, or semantic values, of 'that'-clauses in true attitude reports. More specifically, some theorists hold that a propositional attitude report of the form 'S PAs that *p*' is true only if the proposition referred to, or specified by, 'that *p*' is among the things that *S* is related

¹⁹ For a different variety of deflationism regarding propositions see Schiffer (2003). According to Schiffer, propositions are "pleonastic entities" that arise as "something from nothing transformations", for example from 'It is true that *p*' to 'The proposition that *p* is true'. The affinities between Schiffer's account and the work of neo-Fregeans in the philosophy of mathematics have led some critics, such as Rumfitt (2016), to assimilate the two. In response to Rumfitt, however, Schiffer (2016) is explicit that he does not endorse an abstractionist approach like the one sketched above, nor does he think that his pleonastic propositions, being (according to him) vague objects, need, or can have, criteria of identity. As best we can see, for all objects *x*—vague, or otherwise—there must be some account of what makes *x* the object it is, rather than something else and we think **PC** provides this for propositions. A full discussion of Schiffer's view and how it relates to our favored proposal will have to wait for another occasion. For more on Rumfitt's worries regarding the abstractionist line he attributes to Schiffer, see footnote 16.

²⁰ As an anonymous referee has pointed out to us, not just any specification of a proposition will provide information about how a mental state represents. For example, being told that Carla is in a mental state which has as its content Oscar's favorite proposition might not reveal to you how Carla represents. Something more substantive is required; something like a way of getting at the proposition that reveals which, amongst all the propositions, it is. For those who hold that propositions represent (primitively or derivatively), it is natural to assume that this knowledge will require knowing how the proposition itself represents. For the minimalist, that knowledge will plausibly require knowing which particular abstraction the proposition is, which in turn requires knowing something of the class of representational mental states from which it is an abstraction.

to in virtue of being in the PA-state. If we are correct about **PC** and if the foregoing “specification assumption” is correct, then ‘that’-clauses in true attitude reports would have to designate the propositions provided by **PC**. We are skeptical, however, that the specification assumption is correct for the reasons given in Bach (1997), Buchanan (2012), and Graff Fara (2013). The topic of attitude reports is complex and well beyond the scope of this paper. But for now, we are happy to report that our view is compatible with the *only* uncontroversial thing that one might say about the relationship between the semantic values of ‘that’-clauses and propositional objects—namely, in true attitude reports, ‘that’-clauses help to characterize how the relevant mental state of the agent represents things as being. Sometimes, the ‘that’-clause (in context) might serve to uniquely characterize a particular propositional object, but, in other cases, it might merely partially characterize the propositional content of the relevant state. It is, in part, for this reason that we seek to ground our story about propositions in the facts about our mental states themselves, rather than in the messier, vaguer, and sometimes merely incomplete practice of reporting such states.

There are other well known jobs propositions have been asked to perform that might seem to require that they themselves be representational. For example, propositions are said to be premises and conclusions of arguments. How could a proponent of Minimalism account for this role for propositions? The answer, in short, is ‘indirectly’.

According to Minimalism, although propositions are not themselves fundamentally representational, the mental-states such as our belief-states from which they are abstracted are. We are able to recapture the idea that the proposition that something snores (*q*) follows from the proposition that Oscar snores (*p*) because, for any two mental states *m*1 and *m*2 such that *p* is the content of *m*1 and *q* is the content of *m*2, if the world is the way *m*1 represents it as being, then the world must also be as *m*2 represents it as being. Namely, any world in which Oscar snores is a world in which something snores. Even if cumbersome, this seems to us as good a notion of ‘follows from’ as any.

Of course we do say that propositions themselves are bearers of truth and we do talk as if one follows from another. We are happy to agree to the truth of attributions such as ‘the proposition that Kirsten swims is true’ and ‘Necessarily, the proposition that grass is green is true iff grass is green’, so long as such attributions are understood in an appropriately deflated manner. It only because a proposition is, of its essence, correlated with things that themselves represent and hence have truth-conditions that we can speak of its being true or false. Compare: we happily say certain types or kinds of vehicles are difficult to park, or that certain act-types are apt to result in injury or indignation. For example, we might say, ‘The Ford F150 is difficult to park’, or ‘Playing golf in a thunderstorm is dangerous’. Such claims might initially seem puzzling. F150 qua abstract type—a type of which there are many concrete tokens in Texas—is patently not difficult to park; it isn’t the sort of thing that could be parked in the first place! But since it—the abstract type—is essentially correlated with things that are difficult to park, we don’t balk at saying that *it* is difficult to park. The abstract type need not itself literally *inherit* the property of being hard to park in order to justify this way of talking. Likewise, we needn’t countenance a derivative sense in which the

type is hard to park. And the same goes for propositions. Although we say that propositions represent and we say that they are true and false, this is licensed by their relation to mental states that represent including our states such as believings which are true or false. Moreover, we don't see what of importance would be lost on our view if we *didn't* talk about propositions representing or being true or false since propositions are, of their essence, correlated with things that themselves represent and hence have truth-conditions. Discourse would be cumbersome, but all that is needed is systematically recoverable.^{21,22}

More generally, we see no explanatory or predictive work for propositions to do that cannot be done by the entities delivered by the real, implicit definition provided by our understanding of **PC**. Since everyone in this debate is, or at least should be, committed to both **PC** and the denial of **(I)** (and with that the denial an affirmation of the priority of mental representation in the story of our propositional attitudes), we are puzzled as to why anyone would go on to say anything more than what is delivered from our minimalist account.

If the foregoing considerations are correct, the bi-conditional **PC** ought to be a fixed point in the debate regarding the metaphysics of propositions. Given our minimalist inclinations we think that there is nothing of interest about propositions that can't simply be read of **PC**.

6 Conclusion

Recent debates over the nature of propositions have paid a great deal of attention to how it could be that propositions themselves represent. But if the consideration we've offered are correct, whether propositions themselves represent is of little explanatory importance. Instead of focusing on how propositions represent, we have

²¹ Recently, Soames himself says that propositions represent in a "derivative" sense. So long as this is merely a convenient way of talking and not a serious commitment to the idea that propositions *really* represent, we can happily follow suit. For example, we can talk *as if* a proposition has such and such truth-conditions just in case it is an abstract from a state that has those truth-conditions. We worry, however, that such talk – talk that takes center stage in presentations of act-type accounts – is misleading and should be avoided. Soames's talk of propositions representing has naturally lead critics to worry about how, if at all, propositions could literally inherit representational properties from token acts of predication. We doubt that any plausible such story can (or need) be given. That being said, if an act-type theorist gives up the claim that propositions qua-act-types really represent their view is much closer to the abstractionist line advocated here. They are still, however, saddled with the unpleasant consequence that propositions are things we can *do*, or that can *happen*, however. On our abstractionist view, propositions are not instantiated by the token mental states that have them as their content nor are they things one does or that can happen.

²² We think a parallel line should be taken on propositional constituency. Notice that **PC** does not provide us with entities that are "structured" entities or that have "parts" in any metaphysically interesting sense of those terms. A minimalist can, however, countenance a derivative, or second class, sense in which propositions are structured and have parts in just the way she can allow for a suitably deflated sense in which propositions represent. For example, if *p* is a proposition that is abstracted from the class of mental states each of which represents Oscar, we might speak, derivatively, of *p* having Oscar as a constituent. This idea is very much in keeping with a recent distinction drawn between "lightweight constituency" and "heavyweight constituency" in Keller (2013). See Speaks's Chapter 11 in King et al. (2014) for more in the same vein.

argued that one must pay more attention to the question of what could make a relation a propositional attitude relation. As we have seen, any two agents who bear a PA-relation to a particular proposition must themselves be in mental states that represent the same. Moreover, given our arguments against the Inheritance thesis, the facts in virtue of which a mental state of ours represents as it does cannot itself be grounded in facts regarding any Platonic propositional entity. By our lights, these two points provide the key to understanding the essential nature of propositions.

We are, however, well aware that the nature and status of bi-conditionals such as **PC** is contentious territory and not everyone will sympathize with our specific neo-Fregean understanding of it. For example, one may prefer a neo-Hilbertian approach according to which propositions are *whatever* it is that answers to the bi-conditional. A proponent of this suggestion might endorse a pluralist view according to which propositions could literally be properties, or sets of worlds, or n-tuples, or *anything whatsoever* that exhibits a structure that allows us to correlate them one-to-one with mental states. Alternatively, one may even wish to utilize **PC** in an effort to eliminate propositions—roughly, any time you see a problematic appeal to propositions just paraphrase it away in terms of equivalence classes of mental representations.

We are also aware that many may reject our neo-Fregean suggestion regarding propositions altogether for more general reasons. That is, where we see propositions on the cheap forthcoming from **PC**, others might balk due to more general misgivings over abstraction principles. Even if we do not convince the staunch opponent of neo-Fregeanism, we will be pleased enough to have offered the beginnings of a view according to which the ontology of propositions is a *conservative extension* of the story about mental representation; a story that should be of interest even to those theorist who would seek to use **PC** to paraphrase away, or eliminate propositions, from their ontology, rather than to provide a story of their existence and nature.

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