EXPLORING SUBJECTIVE REPRESENTATIONALISM

BY

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Abstract: Representationalism is, roughly, the view that experiencing is to be analyzed wholly in terms of representing. But what sorts of properties are represented in experience? According to a prominent form of representationalism, *objective representationalism*, experiences represent only objective (i.e. suitably mind-independent) properties. I explore *subjective representationalism*, the view that experiences represent at least some subjective (i.e. suitably mind-dependent) properties. Subjective representationalists, but not objective representationalists, can accommodate cases of illusion-free phenomenal inversion. Moreover, subjective representationalism captures the so-called *transparency of experience*, as it is standardly articulated, just as well as objective representationalism.

The core idea of *representationalism* is that experiencing is to be analyzed wholly in terms of representing. More precisely, representationalism is the view that a mental state is an experience in virtue of being an appropriate type of representational state, perhaps in conjunction with playing a certain functional role; experiences are phenomenally similar or different wholly in virtue of having similar or different representational contents.[1]

A pressing question for representationalism, then, is just what goes into these *phenomenal contents* that determine the phenomenal similarities and differences among experiences. Contrast two sorts of properties. *Objective properties* are robustly mind-independent in this sense: whether or not something instantiates an objective property does not depend essentially on whether or not that thing is appropriately related to the minds of subjects. Meanwhile, *subjective properties* are mind-dependent in a related sense: whether or not something instantiates a subjective property does depend essentially on whether or not that thing is appropriately related to the minds of subjects. The subject in question might exist at some time other than when the subjective property is instantiated.[2] An obvious ques-

tion is whether the contents of experience concern only objective properties, or whether they concern at least some subjective properties.

To sharpen this question, let me introduce a bit of terminology. I stipulate that *phenomenal properties* are the properties (a) that we are apparently directly aware of via introspection, and (b) which generate, in the appropriate way, certain well-known philosophical puzzles about experience, such as the explanatory gap puzzle, the inverted spectrum puzzle, the zombie puzzle, and the puzzle concerning what Mary didn't know.[3] I will often speak of more or less specific phenomenal properties (more specific: *phenomenal redness*; less specific: *phenomenal color*).

Objective representationalism is the view that all phenomenal properties are objective properties. As objective representationalism is usually developed, phenomenal colors are simply colors, and these in turn are something like dispositions to reflect light, or perhaps the categorical grounds of such dispositions. Objective representationalists say that phenomenal sounds, phenomenal tastes, phenomenal smells, etc. are also all objective properties of some sort.

An alternative view is *subjective representationalism*, which denies objective representationalism while affirming representationalism *simpliciter*. The core subjective representationalist idea is that at least *some* phenomenal properties (like phenomenal colors, phenomenal sounds, phenomenal tastes, etc.) are subjective properties.[4] Subjective representationalism is not the much stronger view that *all* phenomenal properties are subjective properties, though it is compatible with this view.

Many prominent representationalists appear to be objective representationalists. It's difficult to tell for sure, since few explicitly consider the question. Still, when representationalists give examples of the sorts of properties represented in experience, they typically list exclusively objective properties. For instance, according to Michael Tye:

> The most fundamental level of representation in visual experience, then, consists in what is represented in the array prior to any grouping. . . . for example, distance away, orientation, determinate color, texture, whether a discontinuity in depth is present there, and so on (Tye, 1996, pp. 122–123).

These are all objective properties, at least as Tye construes them. Texture is manifestly an objective property, and Tye holds that colors are also objective properties.[5] Properties like distance away, orientation, and having such-and-such discontinuity in depth are also objective, though relational. For whether or not something is such-and-such distance from me, or oriented a certain way with respect to me, or whatever, does not essentially depend on whether that thing bears a certain relation *to my mind*. Rather, it depends on whether or not it bears a certain relation *to me*.[6]

Tye also discusses phenomenal properties associated with non-visual experiences. He conjectures that the contents of such experiences may concern properties like 'pitch, tone, loudness, pungency, muskiness, sweetness, saltiness, [and] sourness.'[7] He makes much of the fact that such experienced properties as sounds and smells are 'publically accessible,'[8] and makes a similar point about taste: 'We taste things by tasting their tastes. One and the same taste can be tasted by different people.'[9] It is possible for a subjective property to be publically accessible, but given Tye's objectivism about colors, it would be natural for him to embrace a similar view about pitch, tone, loudness, etc. So these comments suggest, though they don't demonstrate, that Tye thinks of these phenomenal properties as objective.

Alex Byrne pins down a thesis which he calls (CV) – roughly, the thesis that experiences have representational content. He then says:

. . . if (CV) is supported by an inference to the best explanation of illusions, then one might expect perceptual content to be relatively thin. Visual illusions, as the object of study in the visual sciences, concern properties like shape, motion, colour, shading, orientation and the like (Byrne, 2009, p. 449).

Byrne later endorses this approach, saying, 'We may provisionally conclude that perceptual content is relatively thin.'[10] (By saying that perceptual content is 'relatively thin,' Byrne means to exclude kind properties – like the property of *being a pine tree* or *being a lemon* – from perceptual content). Byrne never revises this provisional conclusion in that paper.[11] Byrne holds that color is an objective property,[12] and all of the other properties he lists are manifestly objective.

Similarly, leading representationalist Fred Dretske says this:

. . . *what* (properties) one is [aware] *of* in having the [experience of seeing a pumpkin] are color, shape, texture, distance, and movement . . . (Dretske, 1999, p. 112).

So far as I know, Dretske has not published a view about whether colors are objective, but the other properties he lists certainly are.

And consider Christopher Hill, who analyzes experiencing in terms of the representation of what he calls 'A-properties' – he uses this term more or less as I have been using the term 'phenomenal properties.' Hill suggests that the A-properties associated with visual experiences of size and shape 'are the values that are obtained when certain computable functions are applied to angular properties (together with various other quantities).' Hill elaborates:

(i) the functions are in effect constancy transformations, (ii) they each take a number of arguments in addition to angular sizes and angular shapes, all of which are relevant to

computing constancies, (iii) their values fall short of being genuine constancies, and (iv) their values are A-sizes and A-shapes (Hill, 2009, p. 165).

Hill states that angular sizes are 'defined with reference to the nodal point of the lens of the observer's eye' and that angular shapes 'can for present purposes be identified with the set o all visual angles that are subtended by pairs of points on the boundary of the object's facing surface.'[13] He proceeds to generalize this account to all A-properties – that is, to all phenomenal properties – not just to those phenomenal properties associated with visual experiences of size and shape. All A-properties are produced by constancy transformations, but fall short of being genuine constancies.[14]

Hill's proposal is a form of objective representationalism.[15] For angular sizes and shapes are objective properties in our sense: while they are sensitive to the location of the observer, they are wholly mind-independent. (Similarly, while the property *being within a mile of a coffee table* is sensitive to the location of coffee tables, it is a wholly mind-independent property). And any property that is a computable function of only mind-independent properties will itself be a mind-independent property.

Indeed, Hill even considers the suggestion 'that A-properties should be seen as involving or depending constitutively on internal factors' and rejects this proposal as 'largely unmotivated.'[16] This remark rules out neural properties and the like from serving as input to the computable functions which constitute A-properties. Hill shows no sympathy for subjective representationalism here.

So, among many representationalists, objective representationalism seems to be orthodoxy. I underscore once more that none of the remarks quoted above provide conclusive evidence that Tye, Byrne, Dretske, or Hill are objective representationalists. The point is only that objective representationalism is the most natural extension of their views.

My aim in this article is to provide reasons for preferring subjective representationalism to objective representationalism. I'll show that objective representationalism cannot accommodate the possibility of illusion-free phenomenal inversion, while subjective representationalism can. Moreover, the intuition that illusion-free phenomenal inversion is possible is robust.

Additionally, a dominant motivation for objective representationalism is its ability to accommodate the *transparency phenomenon*, which I'll describe below. But I will develop a particular version of subjective representationalism that holds that at least some phenomenal properties have the form *appropriately causing mental state M in me*. I will show that, not only can this version of subjective representationalism accommodate the transparency phenomenon, but that it can do so just as well as objective representationalism.

Here is a map of the terrain ahead. §1 describes one brand of subjective representationalism and argues that it handles phenomenal color inversion intuitions better than objective representationalism. §2 generalizes the argument to other phenomenal properties. §3 shows that the transparency motivation for objective representationalism equally motivates subjective representationalism, and §4 rebuts a recent objection. Closing remarks appear in §5.

1.   Capturing spectrum inversion intuitions

My main goal in this section is to demonstrate one substantial advantage of subjective representationalism over objective representationalism. We have a robust intuition that there are possible cases of *phenomenal inversion without illusion*. Objective representationalism plainly cannot accommodate such intuitions. Subjective representationalism can.

Here is a familiar phenomenal inversion case. Consider two subjects, Jack and Jill, who are both looking at a ripe (red) bell pepper. What it's like for Jack to see tomatoes, cherries, and ripe bell peppers is (in a salient respect) the same as what it's like for Jill to see limes, frogs, and unripe bell peppers; these experiences share a common phenomenal character. Similarly, what it's like for Jack to see unripe bell peppers is the same as what it's like for Jill to see ripe bell peppers; those experiences, too, share a common phenomenal character. Call this the *Color Inversion Case*. This case seems perfectly conceivable.

It also seems perfectly conceivable that Jack's experience and Jill's experience could be wholly veridical – that neither of them are misperceiving this ripe red bell pepper. We can imagine that their experiences are normal for them: for example, Jack's experiences of things we call 'red' have always been like Jill's experiences of things we call 'green,' and vice versa. Both use color terms standardly (they both call ripe bell peppers 'red' and unripe ones 'green'). Their sorting behavior is identical – they agree completely on which items go in which piles when asked to sort things by color. Each of them even belongs to a species for which such experiences are typical. Given these stipulations about the case, it seems arbitrary to say that one of their experiences of the ripe red bell pepper is veridical and the other falsidical (and perhaps even more counterintuitive to say that both of their experiences *must* be falsidical).

While there is an extensive literature attempting to show that Jack's experience and Jill's experience cannot both be veridical, it is safe to say that none of these arguments have been found widely compelling; our intuition that cases like the Color Inversion Case need not involve any illusion is robust.[17] The relevant intuition is not merely that Jack and Jill both have correct *beliefs*, but also that their *experiences* are not falsidical.

Objective representationalism, as it is ordinarily developed, is incompatible with the possibility of illusion-free spectrum inversion. Objective representationalists analyze what it's like to have color experiences in terms of the properties that those experiences represent. Typically, objective representationalists say that the represented properties are simply colors, and that these in turn are either (roughly) dispositions to reflect light or the categorical grounds of such dispositions.[18] So when Jack and Jill have different experiences while looking at a ripe bell pepper, Jack represents the bell pepper as having the color property *phenomenal F-ness*, and Jill represents it as having the color property *phenomenal G-ness*.

But perhaps the bell pepper can instantiate both color properties, so that Jack's experience and Jill's experience are both veridical? Unfortunately not. For it's very plausible (and objective representationalists normally accept) that the phenomenal property associated with Jack's experience of ripe bell peppers (phenomenal F-ness) is incompatible with the phenomenal property associated with his experience of unripe bell peppers (phenomenal G-ness). These properties are incompatible in this sense: nothing can wholly instantiate both phenomenal F-ness and phenomenal G-ness at a given time. So if the bell pepper wholly instantiates any phenomenal color property, then it can instantiate at most one of the two incompatible properties attributed to it by Jack's and Jill's experiences.

The problem is generated by the following commitments of the objective representationalist concerning the Color Inversion Case[19]:

(1)   No object can wholly instantiate phenomenal F-ness and phenomenal G-ness at a given time.
(2)   Jack's experience of the ripe bell pepper represents something as wholly instantiating phenomenal F-ness, and Jill's experience of the ripe bell pepper represents something as wholly instantiating phenomenal G-ness.
(3)   Jack's experience and Jill's experience attribute these respective properties to the same thing at the same time.

(1) is common ground to almost all theories of experience. The phenomenal property paradigmatically associated with my experiences of red things seems deeply incompatible with the phenomenal property paradigmatically associated with my experiences of green things. It seems unintelligible that they could be co-instantiated.[20]

As for (2), we stipulated that Jack and Jill have different experiences in the Color Inversion Case. Since objective representationalists analyze differences in experience via differences in objective properties represented, they must accept something like (2).

Usually, objective representationalism is motivated partly via the transparency consideration (more on this in §2). For now, we can simply note

that the usual form of objective representationalism says that phenomenal color properties are represented as being instantiated in ordinary environmental objects (like bell peppers). So objective representationalists normally accept (3).

It follows from (2) and (3) that Jack's experience represents an object as wholly phenomenally F, and Jill's experience represents the same object as wholly phenomenally G. But (1) says that no object can be both wholly phenomenally F and wholly phenomenally G. So Jack's experience and Jill's experience cannot both be veridical. Since the (canonical) objective representationalist is committed to (1)–(3), she must deny that Jack's experience and Jill's experience are both veridical in the Inversion Case. The point readily generalizes: objective representationalism cannot countenance illusion-free color inversion.

Can subjective representationalism do better? At first glance, it appears not. Everyone, subjective representationalists included, should accept (1). And any representationalist, objective or not, must accept something like (2). For Jack and Jill have phenomenally different experiences, and representationalists are committed to understanding such differences in terms of representational differences. Finally, subjective representationalists (just like objective representationalists) can deny (3) by denying the transparency consideration. But this is a compelling datum, and I'd like to see whether we can keep it.

Egan (2006) provides a neat solution to the problem. The solution is motivated in part by the point that, to understand the contents of certain propositional attitudes, we need more fine-grained objects than possible worlds.[21] The following example illustrates why possible-worlds content isn't fine-grained enough. Suppose that from noon to midnight I am sitting on the bus to Chicago, with my eyes closed the entire time. Sometime in the middle of the trip, I wonder what time it is *now*. No matter how much information I acquire about which possible world is actual, this alone will not tell me what time it is now. To learn this, I must learn something about – to put things intuitively – *where I am located* in the world.

A natural thought is to introduce *centered possible worlds*. There are many ways of understanding what these are, but I'll take a centered possible world to be a world with a 'marked' individual and time. So here is a centered possible world: <the actual world, Barack Obama, December 1 2010>. Propositional attitudes may be assigned centered possible world contents. Since centered possible world contents are strictly more fine-grained than possible world contents, we don't lose any modeling capabilities when we switch to them. But we do gain some powerful new modeling capabilities. For example, we can now say what I'm wondering when I wonder what time it is now. I'm not wondering which world is actual, but rather which temporal location I'm in now.

Possible worlds contents determine functions from possible worlds to truth values. By contrast, centered possible worlds contents determine functions from *centered* possible worlds to truth values. If we are modeling contents with ordinary possible worlds, then any two actual individuals who represent incompatibly can't both be correct. If I believe that p and you believe that not p, we can't both be right. But introducing centered possible worlds permits for cases in which two actual individuals represent incompatibly, and both are correct.

To see this, suppose that at time *t* Sammy is in Chicago and Sally is in New York. And, at time t, it's raining in Chicago but not in New York. Sammy thinks the thought he would express by saying, 'It's raining here,' and Sally thinks the thought she would express by saying, 'It's not raining here'; these thoughts have quite different truth conditions. The truth of Sammy's thought requires that it be raining in some salient location in *Chicago*, while the truth of Sally's thought requires that it be raining in some salient location in *New York*. Still, both think something true.

Still, there is an important intuitive sense in which Sammy's thought and Sally's thought represent incompatibly, even though both of them think true thoughts. The centered worlds theorist can capture this sense of representational incompatibility by saying that Sammy's thought and Sally's thought have incompatible centered contents: one has the content that it is raining in some salient location near the marked center, and the other has the content that it is not raining in some salient location near the marked center. Assessed at the actual world centered on Sammy at t, only the former content is true. Assessed at the actual world centered on Sally at t, only the latter content is true.

Let's define an *ordinary function* as a function from possible worlds to extensions. Standardly, it is thought that any property (like *being a dog* or *being red*) determines an ordinary function. The property *being a dog*, for example, determines the function that takes as input any possible world and delivers as output every dog in that world. The possible worlds theorist will likely model predicates (like 'is a dog') in terms of ordinary functions.

But now consider *centered functions*, which are functions from centered possible worlds to extensions. The centered possible worlds theorist can model predicates (like 'is a dog' or 'is now red' or 'is near me') in terms of centered functions instead of ordinary functions.

There is a centered function corresponding to every ordinary function, since, for every function from possible worlds to extensions, there is a corresponding function from centered possible worlds to extensions. (Intuitively, these are functions from centered possible worlds to extensions that ignore the marked center). So any theoretical work done by ordinary functions can also be done by centered functions.

But there are also centered functions corresponding to no ordinary functions. (Intuitively, these are functions from centered possible worlds to extensions that do not ignore the marked center). So there may be theoretical work that centered functions can do and ordinary functions cannot do.

As I said, properties are normally thought of as determining ordinary functions. But, from here on out, I'll instead talk as though properties determine centered functions. (This use of the term 'property' is non-standard, but it is a natural extension of the standard use). This lets us distinguish between *ordinary properties* and *centered properties*. An ordinary property is a property that determines a centered function corresponding to an ordinary function, while a centered property is a property that determines a centered function corresponding to no ordinary function. (Thus every property is either ordinary or centered, and no property is both).

Some examples will help. The property of *being a dog* is ordinary; it determines a centered function from any centered possible world to the dogs in that world. (The function ignores any information about the marked centers of these worlds, so it corresponds to an ordinary function). Meanwhile, the property *being me* is centered; it determines a centered function from any centered possible world to the individual marked at the center of that world. There is no ordinary function corresponding to this centered function, since the centered function puts to use information about the marked centers of these worlds.

Notice that centered properties are not instantiated (or uninstantiated) *simpliciter* in the actual world, or in any other possible world; they are instantiated (or uninstantiated) only relative to a center in the actual world, or relative to a centered possible world. (Analogy: we cannot evaluate the thought that New York is here *simpliciter*, but only given a context).

The pivotal suggestion of Egan (2006) is that the subjective representationalist can exploit centered properties to explain what's going on in the Inversion Case. The thought is that Jack's experience and Jill's experience represent things as being the same way – they have the same centered worlds content, ascribing the same properties – even though the veridicality conditions of their experiences differ given their different locations in the world. Here ends my recapitulation of Egan (2006); I'll spell out my preferred version of the view below.

I should mention that, while some have used the label 'subjective' to describe content modeled in terms of centered possible worlds, that is not how I'm using the term in this article. I'll speak of '*de se* content' to describe content modeled in terms of centered possible worlds.

Pressing forward: what property do both Jack and Jill ascribe to the ripe bell pepper? Let's start with a simple subjective representationalist pro-

posal according to which phenomenal color properties are centered properties of the form *causing mental state M in me* (where 'me' picks out the marked individual of the centered world).

What kind of mental state is M? Shoemaker (2003 and elsewhere) suggests that M is the very experience whose content is in question.[22] Given our simple proposal about phenomenal color properties, this amounts to the claim that the content of a color experience E involves the centered property *causing E in me*. As an anonymous referee has noted (and as Shoemaker himself recognizes), such proposals make it impossible to individuate a color experience wholly in terms of its content. For this content would refer to the experience to be individuated, and would thus be circular. So representationalists should construe M as some mental state other than the experience whose content is in question.[23]

Aside from this requirement, subjective representationalists can reasonably disagree about what kind of state M is. I prefer the view that M is the mental state that, in the causal chain of mental states leading up to the experience, is immediately prior to the experience. (This will likely be some subpersonal perceptual state). But the central arguments of this article do not turn on this specific proposal.

Back to the view that phenomenal color properties are centered properties of the form *causing mental state M in me*. On this view, phenomenal redness is the centered property of causing some specific type of mental state – call it M_{red} – in the marked individual at some centered world. There is something it's like for me to experience phenomenal redness, and what it's like is to be explained wholly in terms of the fact that my experience of phenomenal redness represents something as causing a mental state of type M_{red} in me.

An immediate objection to this view is that, when I introspect on my experiences involving phenomenal redness, I don't seem to be aware of a complex property, at least not of the sort *causing mental state M_{red} in me*. I can't introspectively separate a causal element when I consider my experience of phenomenal redness.[24]

The objection is defused by noting that our experiences need not represent this complex property – *causing mental state M in me* – *as* a complex property. Experience may represent the property while *misrepresenting* it as simple.[25] Alternatively, experience may represent the property while remaining silent on whether it is simple or complex. Introspection alone doesn't refute the view that phenomenal properties have such hidden complexity. Moreover, even though phenomenal content is introspectively accessible, not all facts about phenomenal content need be introspectively accessible.[26]

In any case, the most dialectically relevant point is that the same problems afflict objective representationalism. Objective representationalists typically say that phenomenal colors are enormously complicated dispo-

sitional properties, but phenomenal colors certainly don't seem to be enormously complicated dispositional properties when I introspect them. So worries of this kind give objective representationalism no edge over subjective representationalism.

Here is a better objection. Consider the state of affairs obtaining at the moment of the Big Bang, which presumably caused everything afterwards.[27] Specifically, that state of affairs has caused every mental state I've ever undergone. So the Big Bang instantiates every phenomenal color property that I've ever experienced (relative to me now).[28]

This is counterintuitive on two counts. First, it's just implausible that the Big Bang really does instantiate all of those phenomenal colors relative to me now. Second, and more seriously, the instantiation of certain phenomenal colors excludes the instantiation of other phenomenal colors. For instance, nothing can be both phenomenally red and phenomenally green (at the same time and place, relative to the same center). But, on the view we're considering, the Big Bang instantiates these and many more incompatible phenomenal colors relative to me now.

To deal with such problems, we can try restricting the causal relation in question. To be phenomenally red, we might say, a thing must do more than simply cause an M_{red}-state in me in any way at all. A thing must further stand in the kind of causal relation to my M_{red}-state that is typical of cases of veridical perception. The idea is that, when I successfully perceive a red mango, the mango causes an M_{red}-state in me in a particular way. I'll abbreviate this by saying that the thing must *appropriately* cause the M_{red}-state. The new proposal – and the one I will explore in the rest of this article – is that phenomenal colors are centered properties of the form *appropriately causing mental state M in me*.

Appropriate causation is incompatible with all kinds of 'deviant' causal chains. It is also incompatible with causal chains that are, to phrase the idea intuitively, 'too long' or 'too short.' When I successfully perceive the mango, both the Big Bang and a certain state of my retina are causally implicated in the production of the M_{red}-state. But neither causes the M_{red}-state in the appropriate way, so, on the present proposal, neither is phenomenally red.

We now have the resources to handle the Inversion Case without imputing misrepresentation. When Jack looks at a ripe bell pepper and Jill looks at an unripe bell pepper, their experiences both ascribe the following property to the entire surface of the respective bell peppers: *appropriately causing mental state M_1 in me*. What it's like to have an experience quite generally is determined by the content of that experience – in this case, by what properties it ascribes.[29] Since Jack's experience and Jill's experience ascribe the same property, their experiences are phenomenally the same (at least with respect to phenomenal color). Moreover, the ripe bell pepper does appropriately cause M_1 in Jack, and the unripe bell pepper also

appropriately causes M_1 in Jill. So both of their experiences are veridical in this respect.

In what sense, then, is phenomenal redness incompatible with phenomenal greenness? I remarked above that objects instantiate ordinary properties *simpliciter*, but objects do not instantiate centered properties *simpliciter*. Rather, objects instantiate centered properties *relative to a marked center* (a marked individual and time). So the idea is that no object can wholly instantiate phenomenal redness relative to a subject at a time *and* wholly instantiate phenomenal greenness relative to the same subject and time. But an object can wholly instantiate phenomenal redness relative to a given subject at a given time and wholly instantiate phenomenal greenness relative to *another* subject at that time (or relative to the same subject at *another* time). That is the sense in which phenomenal redness and phenomenal greenness are incompatible properties.

One might worry that talk of properties being instantiated 'relative to a marked center' is incoherent, or at least that it is bad metaphysical manners to speak this way. I offer three responses to this worry. First, we can easily pick out centered properties using perfectly acceptable notions: a centered property determines a function from any possible world with a marked individual and time to a set of objects. This way of talking doesn't lead to any obvious technical problems. So we have a way of translating centered-property talk into perfectly respectable talk. Second, as I emphasized earlier, we seem to need centered properties to deal with lots of propositional-attitude contents.

Finally, and most relevantly for present purposes, centered properties permit us to capture two deep but apparently incompatible intuitions. Consider again the case where Jack and Jill are both looking at the same ripe bell pepper and having experiences that differ with respect to phenomenal color. Intuitively, both of their experiences are veridical with respect to phenomenal color. But, intuitively, the properties that they ascribe to the bell pepper seem to be incompatible in some important sense.

Surprisingly, our current proposal reconciles these intuitions. Jack correctly ascribes to the bell pepper the property *appropriately causing mental state M_1 in me*, and Jill correctly ascribes to the bell pepper the property *appropriately causing mental state M_2 in me*. So both of their experiences are veridical with respect to phenomenal colors.

At the same time, Jack could not correctly ascribe to the bell pepper both the property *appropriately causing mental state M_1 in me* and the property *appropriately causing mental state M_2 in me*. For, plausibly, no patch of the bell pepper's surface could appropriately cause both mental state M_1 and mental state M_2 in a given subject at a given time. So these two phenomenal colors are incompatible in an important sense: they cannot both be wholly instantiated in anything at a given time, relative to

a given subject. So subjective representationalism can accommodate the whole raft of intuitions about the Color Inversion Case.[30]

It is instructive to see how this subjective representationalist account applies to the following case, raised by an anonymous referee. Suppose that a creature, Deviant, mutates from a normal perceiver to an inverted perceiver. Deviant is just as well adapted to its environment as its normal conspecifics – indeed, it may be behaviorally indistinguishable from them. The subjective representationalist account I've been selling says that Deviant misrepresents, for its experiences are not *appropriately* caused by environmental objects. But suppose that Deviant leaves lots of inverted offspring who are behaviorally indistinguishable from Deviant in the relevant ways. After enough generations pass, it seems that there will be inverted offspring whose experiences are appropriately caused by environmental objects and thus count as veridically representing. Isn't this arbitrary?

I think not. For it is a spectacular accident that Deviant has the relevant adaptive behavioral dispositions – Deviant was very lucky to have gotten the precise mutations that made it behave like a normal perceiver of its kind. By contrast, it is no accident that Deviant's offspring many generations later have these adaptive behavioral dispositions. Had their ancestors lacked such adaptive behavioral dispositions, those ancestors would have been much less likely to reproduce and pass on the mutation resulting in inverted perceptual states. So there is a principled explanation for why Deviant's offspring have veridical experiences, while Deviant does not.

One might wonder whether objective representationalism can also accommodate our intuitions about the Color Inversion Case by appealing to centered properties instead of ordinary properties. For just as there are both objective and subjective ordinary properties, there are both objective and subjective centered properties. The centered property 'being far away' is an example of an objective centered property. The sun instantiates this property relative to the earth now, and its instantiation of this property does not depend essentially on its relation to the minds of any subjects.

But even if objective representationalists make use of centered properties, they cannot accommodate our intuitions about illusion-free color inversion. We have the robust intuition that when Jack and Jill both look at the same ripe bell pepper and have different experiences with respect to phenomenal color, both experiences may be veridical. The intuition remains even if the bell pepper has all the same objective centered properties (or near enough) 'for Jack' and 'for Jill.' Jack and Jill might be standing right next to each other at the same time; though their eyes can't literally be in the same place, there need not be any relevant difference between their positions.

So the objective centered properties of the bell pepper are the same whether we take *Jack at noon* or *Jill at noon* as the marked center. The only

properties of the bell pepper that differ 'relative to Jack at noon' and 'relative to Jill at noon' are mental: Jack and Jill are in different mental states. So the introduction of centered properties does not help the objective representationalist here.

This subjective representationalist proposal characterizes only phenomenal colors, not colors *simpliciter*. One may further hold either that colors *simpliciter* are phenomenal colors, or that they are not. The subjective representationalist who takes the latter approach may hold that colors themselves are either objective or subjective properties.

As Billy Dunaway pointed out to me, the introduction of *indexical* content is what does the heavy lifting in this account. But there are lots of ways of analyzing indexical contents: via *de se* content (as I do), via Kaplanian characters (see Kaplan, 1989a and 1989b), via Fregean senses, etc. So why do I discuss only the *de se* analysis?

For two reasons. First, as Brogaard (2010) emphasizes, there are several other potential further uses of *de se* content in understanding experience. Second, and more importantly, it seems to me that this is the only approach compatible with the determinacy of experience. I return to this issue in a footnote in §4.

In sum, subjective representationalism that invokes *de se* contents with centered properties of the form *appropriately causing mental state M in me* can accommodate a set of robust but apparently incompatible intuitions about phenomenal color inversions. Objective representationalism can't do this, with or without centered properties. This is a substantial advantage of subjective representationalism over objective representationalism, at least in explaining color experiences. In the next section, I examine whether the argument extends to phenomenal properties besides phenomenal colors.

2.   *Extending the argument*

The argument extends to any phenomenal determinable of type Q with determinates $Q_1 \ldots Q_n$, such that we can coherently conceive of an illusion-free inversion case meeting these conditions:

(1*)   Nothing can wholly instantiate Q_1 and Q_2 at a given time.
(2*)   Jack's experience represents Q_1, and Jill's experience represents Q_2.
(3*)   Jack's experience and Jill's experience attribute these respective properties to the same thing at the same time.

In this section, I'll attempt to generalize the argument. It's plausible that there are cases of illusion-free sound inversion, taste inversion, touch inversion, smell inversion, bodily sensation inversion, etc., that meet these

conditions. If there are such cases, then the argument generalizes to phenomenal sounds, tastes, touches, smells, bodily sensations, etc.

Here is a situation much like the Color Inversion Case, but involving phenomenal sounds; call it the *Sound Inversion Case*. Suppose Jack and Jill both hear a loud sound but have different experiences. For, in general, the experiences Jack has when he hears loud sounds are just like the experiences Jill has when she hears quiet sounds, and vice versa. These experiences are typical for them, and Jack and Jill are behaviorally alike. For example, they call the same sounds 'loud' and 'quiet,' and respond alike when asked to sort sounds by how loud they are.[31]

According to the representationalist, Jack's experience of a particular loud sound and Jill's experience of the corresponding quiet sound have the same phenomenal character because they both represent the same phenomenal property – call it *phenomenal loudness*. Similarly, Jack's experience of a particular quiet sound and Jill's experience of the corresponding loud sound have the same phenomenal character because they both represent another phenomenal property – call it *phenomenal quietness*. It seems perfectly conceivable that both of their experiences are wholly veridical.

The Sound Inversion Case meets conditions (1*), (2*), and (3*), but there are some nuances in seeing how. For (1*) to be satisfied, there must be two phenomenal properties Q_1 and Q_2 such that nothing can wholly instantiate Q_1 and Q_2 at a given time. The natural proposal is that Q_1 and Q_2 are phenomenal loudness and phenomenal quietness, respectively. But one might worry that something can instantiate both of these properties at a given time. For suppose I hear a sound created by a loud guitar and a quiet piano. Plausibly, something (perhaps my experience, or a body of air, or whatever) then instantiates both phenomenal loudness and phenomenal quietness in such a case.

This isn't problematic. While it might be that a single thing instantiates both phenomenal loudness and phenomenal quietness in the Sound Inversion Case, nothing *wholly* instantiates both of these properties. Part of the object – here I'm using the term 'object' very permissively – instantiates phenomenal loudness, and part of it instantiates phenomenal quietness. I can readily swap my attention between these parts and the whole object. But I cannot attend to anything that wholly instantiates both properties.

The representationalist must also accept this version of (2*): Jack's experience represents phenomenal loudness, and Jill's experience represents phenomenal quietness. Representationalists analyze similarities and difference in what-it's-like to have any experiences in terms of similarities and differences in the representational contents of those experiences. So they must analyze the differences in Jack's and Jill's experiences via a difference in the representational contents of their experiences, and talk of

'phenomenal loudness' and 'phenomenal quietness' is merely a convenient way of labeling the relevant phenomenal properties figuring in these different contents.

Finally, representationalists sympathetic to transparency considerations, to be discussed in the next section, must accept (3*): Jack's experience and Jill's experience attribute these respective properties to the same thing at the same time. Transparency theorists, as we shall see, think that phenomenal sounds are features of objects outside the subject. And we may build into the Sound Inversion Case that Jack and Jill are appropriately related to the same environmental objects, or at least environmental objects of the same type. (Again, 'object' is being used loosely, so that bodies of air count as objects).

Since we have an illusion-free inversion case that satisfies (1*), (2*), and (3*), the arguments of §1 apply directly. As before, I propose that we analyze properties like *being phenomenally loud* as properties of the form *appropriately causing mental state M in me*.

The argument extends readily to phenomenal properties associated with all perceptual experiences. For example, it applies to phenomenal tastes (like phenomenal sourness and phenomenal sweetness), phenomenal touches (like phenomenal softness and phenomenal hardness), and phenomenal smells (like phenomenal vanilla-scentedness and phenomenal cinnamon-scentedness). It also applies to hedonic experiences (like phenomenal burning-pains and phenomenal freezing-pains) and bodily sensation experiences (like phenomenal stillness and phenomenal dizziness). Running through the above considerations in each case would be tedious and unnecessary. It is clear how the arguments would go.

As in the previous section, this argument characterizes only certain *phenomenal* properties. It is silent about the nature of sweetness *simpliciter*, softness *simpliciter*, vanilla-scentedness *simpliciter*, etc.

Are there any phenomenal properties that escape the net of this argument? Perhaps phenomenal properties associated with experiences of space do, like the phenomenal property associated with my seeing something as circular or far away. Thompson (2010) provides extensive arguments that illusion-free inversion of even these properties is possible. If Thompson's arguments succeed, then my argument extends to them, too.

Another candidate for phenomenal properties that elude this style of argument are those phenomenal properties, if there are any, associated with the 'phenomenology of intentionality.'[32] It is very contentious whether there are such phenomenal properties. Indeed, the arguments here may bear on the question of whether there is a distinctive phenomenology of intentionality. If all uncontroversial examples of phenomenal properties are susceptible to illusion-free inversion, then that provides at least some reason for thinking that a property which resists such inversion is not really a phenomenal property. I won't explore this line of reasoning

further. It's fine by me if there are some objective phenomenal properties, since subjective representationalism says merely that *some* phenomenal properties are subjective.

3.   *Transparency and representationalism*

Perhaps the most commonly cited consideration in favor of objective representationalism is the *transparency* consideration. Objective representationalists don't agree on exactly how to formulate this consideration, but their formulations do have much in common. I will argue that subjective representationalism can account for the transparency phenomenon at least as well as objective representationalism does, however that phenomenon is best articulated.

I will focus on Gilbert Harman's and Michael Tye's articulations of transparency. I select Harman, 1990 because it is the most cited recent discussion of transparency; I select Tye, 2002 because it is an especially thorough elaboration of how the transparency intuition supports objective representationalism.

Here is the pivotal passage from Harman's seminal discussion:

Look at a tree and try to turn your attention to intrinsic properties of your visual experience. I predict that you will find that the only properties there to turn your attention to will be properties of the tree, including relational properties of the tree 'from here' (1990, p. 39).

It's worth highlighting that Harman does not hesitate to talk about the 'relational properties of the tree.' The transparency consideration, whatever it is, is not a consideration about whether experience presents us with relational or non-relational features.

To follow Harman's instruction to try to turn one's attention to intrinsic properties of one's visual experience, I assume that we employ introspection. Harman makes both (i) the negative claim that introspection turns up no intrinsic properties *of visual experience*, and (ii) the positive claim that introspection turns up properties *of the tree*.

But what is the general type of object whose properties we can introspectively attend to? Is it the class of *external objects*, *environmental objects*, *non-mental objects*, or what? Harman's discussion is none too clear on this point.

Now consider Tye's remarks. Here are some representative passages:

Whatever the nature of the qualities of which we are directly aware when we focus upon how the surfaces before us *look*, these qualities are not experienced as qualities of our experiences but rather as qualities of the surfaces (Tye, 2002, p. 138).

When you introspect your visual experience, the only particulars of which you are aware are the external ones making up the scene before your eyes. You are not aware of those objects *and* a further inner object or episode (ibid., p. 139).

Like Harman, Tye makes both a negative claim and a positive one. Tye's negative claim is that attending to how things look via introspection does not seem to turn up anything inner – it reveals no experiences, inner objects, or inner episodes. Tye's positive claim is that it does turn up (apparent) qualities of external things, like surfaces.

The common phenomenological point that we can extract from Harman and Tye is this: introspection seems to reveal *only* properties of certain kinds of *outer stuff* – perhaps external or environmental or intentional objects. It does *not* seem to reveal properties of *inner stuff*, like the experience itself. I'm using the term 'stuff' because of its pliability. Expanses of sky, experiential events or processes, and ordinary objects all count as *stuff* in my sense.

It is clear how this motivates objective representationalism. Unless introspection is massively unreliable – which we may reasonably think it's not – these introspected phenomenal properties (like phenomenal colors) *are* properties of outer stuff, not inner stuff. This is just what objective representationalism says. According to a common version of objective representationalism, phenomenal colors are something like dispositions to reflect light, or the categorical grounds of those dispositions. Outer stuff – like apples, expanses of sky, pitchers of beer, and so on – instantiates such properties. (Inner stuff does too, but presumably we're not normally aware of *those* properties). The objective representationalist may hold that other phenomenal properties are also objective properties of outer stuff.

Many kinds of experiences are allegedly problematic for the transparency argument, including (to select only a few examples) experiences associated with blurry vision or double vision, experiences involving size and shape constancy, and experiences associated with bodily sensations.[33] I set aside such objections for four reasons.

First, I am tentatively sympathetic to the idea that such examples do not really pose problems for the transparency thesis. Second, this article is largely aimed at those sympathetic to objective representationalism. Since many such sympathizers accept a suitable transparency thesis, my argument will be dialectically effective for them.

Third, in Mehta, ms. A, I have defended a separate argument (based on the spatial character of experience) that arrives at the same conclusion as the transparency argument – the conclusion that, if experience is veridical, phenomenal properties are properties of outer stuff. But this argument, I claim, is not vulnerable to the kinds of objections that have been raised for transparency theses like those defended by Harman and Tye.

My fourth comment is for those unsympathetic to the conclusion of the transparency argument. One can easily develop a version of subjective representationalism according to which many or all phenomenal properties represented by experience are properties of inner stuff. So even if transparency enthusiasts are getting the phenomenology wrong, subjective representationalism more broadly wouldn't be in trouble, though the specific subjective representationalist proposal I've sketched here would then lose an important source of support.

Setting aside worries about whether experience is transparent, then, here is the payoff. At best, transparency considerations support only a conclusion about *where the stuff that instantiates (e.g.) phenomenal colors is located*: it's located *outside* the subject. (That is, as long as the experience is veridical and the subject isn't experiencing her insides). These transparency considerations do not support any conclusion about exactly which properties of outer stuff are relevant.

To be sure, this does cut against lots of views about experience. But it does not cut against the form of subjective representationalism sketched above, according to which some phenomenal properties have the form *appropriately causing mental state M in me*. These properties may be instantiated outside the subject. Indeed, the subjective representationalist who wishes to capture strong transparency theses of the sort articulated by Harman and Tye may say that all phenomenal properties that we experience are instantiated in outer stuff, not inner stuff.

Still, one might worry that representationalist views that invoke *de se* content – content that invokes centered possible worlds – face special worries. In the next section, I consider one such worry.

4.   *Determinacy and centered content*

Color experience seems to present objects as *being a certain specific way*. When I see a red strawberry and experience phenomenal redness, my experience presents the strawberry as being a highly determinate way – phenomenally red. Call this the *determinacy phenomenon*. (The determinacy phenomenon might or might not be related to the transparency phenomenon).

Thompson (2007, fn. 28) worries that *de se* involving cannot concern any specific way things are, and thus can't accommodate the determinacy phenomenon. In this section, I'll try to develop the worry (since Thompson mentions it only in a footnote) and then relieve it.

Before elaborating on the worry, I should separate it from a different worry. One might worry that paradigmatic phenomenal properties seem to be intrinsic rather than (as subjective representationalism has it) relational. This worry applies to any form of subjective representationalism, whether

or not the view posits *de se* contents. I'm not dealing with this worry here, for others have replied to it persuasively.[34] The worry I'm engaging applies specifically to views that individuate experiences via something like *de se* content.

An example might help bring out the worry. If I believe that Chicago is west of New York, there is a specific way I take things to be: I take things to be such that Chicago is west of New York. But if I believe that Chicago is west of *here*, it seems that there is not a specific way I take things to be, for I needn't have any view about where I am. In the latter case, one might think, my belief places some constraints on how I take things to be, but it doesn't concern a specific way that I take things to be. The worry, stated more generally, is that *de se* content cannot specify how things are; it can only place constraints on specifications of how things are.

To show that this worry is misguided, let's look more carefully at propositional attitudes whose contents do not essentially involve centered properties – say, my belief that Chicago is west of New York. This belief plainly concerns how Chicago is specifically. Why is that? What does this specificity amount to?

Well, on one approach, the content of my belief that Chicago is west of New York corresponds to a set of possible worlds. If my belief is correct, then I can't be in certain possible worlds: I can't be in those possible worlds in which Chicago isn't west of New York. It would be natural for advocates of this approach to say that my belief concerns how Chicago is specifically because it rules out specific possibilities concerning Chicago.

On another approach, the content of my belief that Chicago is west of New York involves a structured Russellian proposition containing Chicago itself and the ordinary property *being west of New York*.[35] Advocates of this view also have a natural account of why my belief concerns specifically how Chicago is: it attributes the specific ordinary property *being west of New York* to Chicago.

But *de se* content is deeply analogous to ordinary content. Consider again my belief that Chicago is west of *here*. We can model the *de se* content of my belief with a set of centered possible worlds – possible worlds with a marked individual and time. If my belief is correct, then I can't be in certain marked locations within possible worlds: I can't be in any location in a possible world in which Chicago isn't west of that location in that world. In other words, when I believe that Chicago is west of here, I *do* take things to be a specific way. I take myself to be in a certain type of location within a possible world: one in which Chicago is to the west of *me now*.

Alternatively, we can model the *de se* content of this belief with a structured Russellian proposition containing Chicago itself and the centered property *being west of here*. While this centered property doesn't determine an extension given a possible world alone, it does determine an

extension given a centered possible world. So, as before, it's natural to say that my belief concerns specifically how Chicago is. For my belief attributes the specific centered property *being west of here* to Chicago.

Now for the payoff: the same point applies to *de se* contents that involve properties like *appropriately causing* M_{red} *in me*. Suppose my experience of phenomenal redness involves such a *de se* content. This content cannot be understood just in terms of which worlds it rules out; nor can it be understood just in terms of which properties it attributes. Nevertheless, it can be understood just in terms of which centered worlds it rules out; alternatively, it can be understood just in terms of which centered properties it attributes.

Understood either way, the content of such an experience does concern how things are specifically. In our example, my experience presents something as appropriately causing M_{red} in me. This centered content concerns a specific feature of the object represented in a way tightly analogous to the way that the content featuring the property *appropriately causing* M_{red} *in S at time t* concerns a specific feature. Thus, there is no special worry here for subjective representationalism.

Put generally, my point is this. Consider a belief about an object, where this belief has ordinary content featuring only ordinary properties. It should be uncontroversial that such a belief can concern how, specifically, that object is. But *de se* content is theoretically very much like ordinary content; in this section and in §1, I've meticulously documented the deep parallels between these two approaches to modeling content. Any reasons for thinking that ordinary content can concern the specific features of objects are equally reasons for thinking that *de se* content can concern the specific features of objects.[36]

5. *Conclusion*

I've sketched a version of subjective representationalism that has a substantial advantage over objective representationalism: it can accommodate our deeply held intuitions about the possibility of illusion-free phenomenal inversions. Moreover, I've argued that the transparency phenomenon, arguably the single most powerful motivation for objective representationalism, is just as powerful a motivation for this version of subjective representationalism. Finally, I rebutted an objection based on the determinacy of experience.

Still, my comparison of objective and subjective representationalism has been sharply limited. There is much to explain about experience besides our intuitions about phenomenal inversion cases, the transparency phenomenon, and the determinacy phenomenon. Perhaps, at the end of the day, objective representationalism will prove the superior theory. My hope

is only that the arguments here provoke greater scrutiny of what strikes me as a promising alternative to objective representationalism.[37]

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NOTES

[1] This view is sometimes called 'strong representationalism,' as there are related but substantially weaker views that go under the label 'representationalism.' For example, Byrne (2001) argues that phenomenal character *supervenes on* representational properties, without making the stronger claim that mental states have their phenomenal character *in virtue of* having certain representational properties. As I will not be concerned with these weaker views in this article, I'll stick with the terminology in the text. Advocates of representationalism, as I use the term, include Carruthers (2000) and (2005); Dretske (1995) and (2003); Harman (1990); Hill (2009); Lycan (1996); Pautz (2010); and Tye (1995, 2000 and 2002). Tye (2009) endorses a view very close to representationalism.

[2] I admit that I'm not sure that this is quite the right way of drawing the objective/subjective distinction. That said, it's pretty clear that there is some important distinction of this sort to be drawn, and no one knows quite how to draw it. The distinction I propose in the text provides a good enough approximation for present purposes.

[3] Influential presentations of these puzzles are offered, respectively, by Levine, 1983; Shoemaker, 1982; Chalmers, 1996, pp. 93–171; and Jackson, 1982.

[4] Sydney Shoemaker has explored many views in the vicinity of subjective representationalism (1994a, 1994b, 2000, 2001, 2003, 2006). However, Shoemaker disavows reductivist ambitions, so strictly speaking he does not qualify as a representationalist, as I'm using the term.

[5] For example, see Tye, 2000, Chapter 7.

[6] I thank Brad Thompson for helpful discussion on this point.

[7] Tye, 2000, p. 50.

[8] Ibid., p. 49.

[9] Ibid.

[10] Ibid., p. 450.

[11] Strictly speaking, Byrne does not endorse representationalism (as I've defined it) in this article, but only a weaker thesis – see Note 1. Still, his view is compatible with representationalism, and it's notable that the contents he attributes to experiences involve exclusively objective properties.

[12] Byrne and Hilbert, 2003.

[13] Ibid., p. 162.

[14] Ibid., pp. 165–168.

[15] Hill says several times that A-properties are not 'objective,' but it's clear from context that his use of the term differs from ours. Roughly, Hill uses the term to refer to something like *observer*-independence, not *mind*-independence.

[16] Ibid., p. 167.

[17] For further defense of this point, see Chalmers, 2006; Shoemaker, 1982, 1994a, 1994b, 2000 and 2003; and Thompson, 2009.

[18] See, for example, Byrne, 2001 and 2006; Byrne and Hilbert, 2003; and Tye, 1995 and 2000.

[19] Roughly this problem is also noted in Chalmers, 2006; Egan, 2006; and Thompson, 2007.

[20] But cf. Harman, 2001 for a contrary opinion.

[21] For compelling arguments that we need something more fine-grained than possible worlds to understand content, see Perry, 1979 and Lewis, 1979. But note that Perry does not endorse a centered-contents approach to explaining the relevant phenomena.

[22] Though on his account involves a more complex property than *causing M in me*.

[23] Recall that Shoemaker is not a representationalist in my strong sense of this term – see Note 1.

[24] An anonymous referee pointed out this related objection: if the present proposal is correct, introspection can immediately reveal that there is mind-body causation. But surely introspection cannot do that. The upcoming reply handles this objection, as well.

[25] It is a cost of this view that it ascribes misrepresentation to experience; it's not clear to me how large this cost is.

[26] This is a plausible point about content in general. Though water-thoughts in fact refer to something complex – namely, H_2O – this need not be introspectively accessible to the chemically ignorant, who might well believe that water is a simple substance. Still, even such a chemically ignorant individual may have good introspective access to the contents of her water-thoughts, since she knows that those thoughts concern *water*.

[27] If one doesn't think that states of affairs are the relata of causal relations, no matter. The point can easily be rephrased in terms of *events*, or *properties*, or whatever one thinks the relata of causal relations are.

[28] I owe this example to Eric Lormand.

[29] Does the object to which this property is ascribed – in this case, the bell pepper – also figure in the content of the experience? I argue against this in Mehta, ms. B. Even if one disagrees, this shouldn't matter, as Jack and Jill are seeing the same object in the Color Inversion Case.

[30] I also think that this kind of subjective representationalist account can easily handle examples like Ned Block's Inverted Earth case (1990) and Brad Thompson's cases involving spatial inversions (2010), though I don't have space to discuss such cases here. Such cases seem deeply problematic for objective representationalism.

[31] Those who have trouble coherently conceiving of such a case may instead substitute a 'shifted experience' case where Jack's experience of a sound of n decibels is, in general, just like Jill's experience of a sound of 0.8n decibels.

[32] The literature on this has grown explosively, but a good starting point is Horgan and Tienson, 2002.

[33] Among anti-transparency theorists, Boghossian and Velleman (1989) and Smith (2008) focus on blurry-vision and double-vision cases; Peacocke (1983) and Siewert (2004) emphasize size- and shape-constancy phenomena; and Block (1996) discusses bodily sensations.

[34] See Shoemaker, 1994a, p. 28.

[35] Actually, a more natural thing to say is that the proposition contains Chicago itself, New York itself, and the relation *being to the west of*. But I am not primarily concerned with the right way of thinking about belief contents. I develop the view in the text only to draw certain analogies with the content of experience. That's also why I don't talk about Fregean views of content here. Since I'm not proposing a Fregean account of the content of experience, the parallels between a Fregean account of ordinary content and a Fregean account of centered content aren't relevant here.

[36] Following up on my remarks at the end of §1: other ways of analyzing indexicality (e.g. Kaplanian or Fregean ways) cannot, I think, capture the determinacy of experience, but the

de se analysis can. This point deserves further discussion, which I hope to provide on another occasion.

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