

## Rosenthal's Representationalism

Forthcoming in *Qualitative Consciousness and Higher-Order Thought: Themes from the Philosophy of David Rosenthal*

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### Abstract

David Rosenthal explains conscious mentality in terms of two independent, though complementary, theories—the higher-order thought (“HOT”) theory of consciousness and quality-space theory (“QST”) about mental qualities. It is natural to understand this combination of views as constituting a kind of representationalism about experience—that is, a version of the view that an experience’s conscious character is identical with certain of its representational properties. At times, however, Rosenthal seems to resist this characterization of his view. We explore here whether and to what extent it makes sense to construe Rosenthal’s views as representationalist. Our goal is not merely terminological—discerning how best to use the expression ‘representationalism’. Rather, we argue that understanding Rosenthal’s account as a kind of representationalism permits us not only to make sense of broader debates within the philosophy of mind, but also to extend and clarify aspects of the view itself.

“The appearances of consciousness reflect the contents of our HOTs; what it’s like for one to be in a particular mental state is a matter of how one’s HOT represents that state.”

– David Rosenthal, *Consciousness and Mind*, p. 14

### 1. Introduction

Throughout his impressive body of work, David Rosenthal (e.g., 1986; 1991; 2005; 2010; 2012; 2019) explains experience in terms of two independent, though complementary, theories—his higher-order thought (“HOT”) theory of consciousness and what he calls ‘quality-space theory’ (“QST”) about mental qualities.

According to Rosenthal’s HOT theory, a mental state is conscious just in case one is aware of being in that state via a suitable HOT (for related versions of HOT theory, see, e.g., Weisberg 2011a; Brown 2012; 2015). To consciously see red is to be aware of oneself as seeing red via a suitable HOT. On QST, the qualities of mental states such as perceptual or emotional states can be understood in terms of their locations within spaces that match the quality spaces of the perceptible properties to which they correspond (for similar views, see, e.g., Shoemaker 1975; Clark 1993). Rosenthal, like many in the history of philosophy, distinguishes perceptible properties—the perceptible colors, odors, shapes, and so forth of mind-independent objects—from their corresponding mental qualities—the colors, odors, shapes, and so on that characterize qualitative mental states (e.g., Reid 1785/1969, p. 244; Peacocke 1983, pp. 20-21). According to QST, the reddish quality of a visual perception of red—what Rosenthal calls ‘mental red’—is a property that occupies a location within the space of mental-color qualities that corresponds to the location of the perceptible-color red within the quality space of perceptible colors. On this combination of views, then, what it is to consciously see red is, more specifically, to be aware of oneself via a suitable HOT as being in a visual state that exhibits mental red.

HOTs are a kind of thought—that is, a kind of mental representation. And, as we shall see, Rosenthal proposes that mental qualities too represent their corresponding perceptible properties. It is thus natural, as many do (e.g., Gennaro 2018; Lycan 2019), to read Rosenthal’s combination of views as constituting a kind of *representationalism* about experience—the view that an experience’s conscious character is identical with certain of its representational properties (for other versions of representationalism, see, e.g., Harman 1990; Dretske 1995).<sup>1</sup> Representationalism is attractive for many reasons. It would seem, for example, that there can be no changes in perceptual phenomenology—that is, how things consciously seem to us—without there being changes in how we represent things as being, which suggests that the character of experience at least depends on representational properties (e.g., Byrne 2001).

In general, theories of consciousness come in two broad varieties: higher-order (“HO”) theories—of which HOT theory is a variant—which explain conscious mentality in terms of some kind of HO awareness (e.g., Armstrong 1968; Lycan 1996) and first-order (“FO”) theories, which reject that conscious mentality constitutively involves any kind of HO awareness and instead locate consciousness in various properties of FO mental states (e.g., Dehaene et al 2006; Block 2007). Representationalism would seem to be able to come in both FO and HO varieties—and many assume that Rosenthal’s views are a version of the latter.

But whether or not Rosenthal’s views are representationalist is far from straightforward. For one thing, standard FO theories typically do not distinguish mental qualities and consciousness, maintaining that mental qualities simply are the features of mental states in virtue of which they are conscious. Such necessarily conscious mental qualities are often called ‘qualia’, ‘phenomenal properties’, and the like (e.g., Nagel 1974; Block 2007). According to standard versions of FO representationalism, for example, having the right kind of FO representation suffices for one to have qualia or a phenomenal experience (e.g., Dretske 1995; Tye 2000). A visual experience of red, on such a view, consists in one’s suitably representing perceptible red. But since there is much evidence that mental states such as perceptual states can occur without being conscious, as in studies involving masked priming or pathological conditions such as blindsight (see respectively, e.g., Kouider & Dehaene 2007; Weiskrantz 1997), Rosenthal separates mental qualities from consciousness insofar as he holds that the former can and do occur without the latter. He thus develops independent theories of mental qualities and consciousness.

We can thus ask: is it reasonable to understand Rosenthal as a representationalist about consciousness, mental qualities, neither, or both? At times, Rosenthal seems to resist characterizing any aspect of his thinking as representationalist (see, e.g., 2005, p. 223; 2019, p. 54). Our goal here, however, is to argue that Rosenthal’s views can and should be read as a (unique) kind of representationalism. But our purpose is not merely terminological—discerning how best to use the expression ‘representationalism’. Rather, we argue that understanding Rosenthal’s views in this way permits us not only to make sense of broader debates within the philosophy of mind, but also to extend and clarify aspects of his accounts themselves.

We begin in section 2 by exploring whether and how we may read HOT theory as a representationalism about consciousness. Then, in section 3, we clarify what kind of representationalism this theory constitutes. In section 4, we lay out basic features of QST, arguing that it is most naturally construed as a theory of a kind of mental content. Several objections to and questions about this proposal remain, however, which we explore in section 5. We conclude that the combination of QST and HOT theory is best understood as a kind of HO representationalism, involving representations of representations.

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<sup>1</sup> Representationalism is often referred to by other names, such as ‘intentionalism’ or ‘representationism’—though as we shall see, there are reasons to prefer ‘representationalism’.

## 2. HOT Theory and Representationalism

To assess whether or not Rosenthal's views are genuinely representationalist, it is first necessary to clarify how we understand representationalism in general. There are various ways to formulate the basic commitments of the view (for a taxonomy of kinds of representationalism, see, e.g., Chalmers 2010, chapter 11), but we follow Seager and Bourget, who offer what they call the 'Exhaustion Thesis' as the defining element of what they call 'modern representationalism':

The claim is that a state's phenomenal character is exhausted by its content. The exact meaning of the exhaustion thesis is that for every phenomenal character P there is some content C such that a state with P is nothing more than a phenomenal state with content C (2017, p. 274).

Here 'phenomenal character' picks out, to use Nagel's (1974) expression, *what it is like* for the subject of the experience. As we and many others understand the expression 'content', it is just a condition of satisfaction (e.g., Chalmers 2010, pp. 341-342). The Exhaustion Thesis thus holds that what it is like for a subject to visually experience red is the state's satisfaction conditions—the property of representing things in a certain way. Again, this thesis is quite broad and representationalism is thereby contrasted with versions of *qualia realism*, according to which consciousness consists in nonrepresentational introspectively manifest qualia (e.g., Block 2007), or *naïve realism*, on which at least perceptual consciousness is not fundamentally explained in terms of representation, but in terms of relations between perceivers and perceived objects (e.g., Brewer 2011).

We note that Rosenthal tends to eschew using 'qualia', 'phenomenal consciousness', and related expressions, instead casting his views as a theory of what he calls '(qualitative) *state consciousness*'. Rosenthal seems to regard the former expressions as tacitly assuming from the outset that we cannot separate consciousness from mental qualities (e.g., Rosenthal 2011, p. 434). But we take 'phenomenal consciousness' and related expressions to pick out a theory-neutral phenomenon—what we might simply call 'experience' (see, e.g., Weisberg 2011b; Chalmers 2015).<sup>2</sup>

Indeed, qualitative state consciousness and phenomenal consciousness would seem to coincide, at least in the case of perceptual consciousness.<sup>3</sup> To see why, consider the fact that one of the main motivations for HOT theory is the commonsense observation that if one is in a mental state, but in no way aware of being in it, then that mental state is not conscious—or, equivalently, one is not having an experience. But the contrapositive claim, which Rosenthal (e.g., 2005, p. 4) calls the 'Transitivity Principle' ("TP"), is that one is in a conscious mental state or has an experience only if one is somehow aware of oneself as being in a mental state. In other words, it is enshrined in commonsense psychology that consciousness is, as Rosenthal (e.g., 2011, p. 431) often puts it, a matter of *mental appearance*—the way in which one's own mental life subjectively appears to oneself. And HOT theory hypothesizes that the best explanation of this kind of inner awareness is provided by thoughts of a particular kind: ordinary occurrent assertoric thoughts with contents of the form "I see red" or "I think that Paris is in France."

HOT theory is arguably an account of phenomenal consciousness insofar the TP can be construed in terms of it. If one is in a mental state, but in no way aware of being in it, then there is nothing that it is like for one to be in that state; this is simply equivalent to the claim that one has a phenomenal experience only if one is somehow aware of oneself as being in a qualitative state. And

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<sup>2</sup> Since we use 'experience' to refer only to conscious states, we take expressions such as 'conscious experience' to be redundant.

<sup>3</sup> Since Rosenthal maintains that cognitive states such as thoughts can also be conscious when one has suitable HOTs that one is in such states, there are arguably cases of so-called 'cognitive phenomenology' or phenomenal consciousness that are not qualitative (see, e.g., Brown & Mandik 2012).

this usage of ‘phenomenal experience’ is compatible with the existence of unconscious mental qualities as Rosenthal understands them.<sup>4</sup>

Why regard HOT theory as a kind of representationalism? In short, because Rosenthal urges that suitable HOTs on their own engender phenomenology—that is, suitable HOTs are both necessary and sufficient for experience. If consciousness is a matter of mental appearance—and appearances in general can be inaccurate—then the theory is compatible with cases of so-called ‘empty’ or ‘targetless’ HOTs, wherein one has a suitable HOT that renders one aware of oneself as being in states that one is in fact not in. The theory does not rule out that one can visually experience red insofar as one has the suitable HOT that one sees red, but not actually see red insofar as one is not in any relevant FO state that represents red in the environment.

The possibility of targetless HOTs has appeared to many critics of the theory to be not simply implausible, but to pose a fatal problem for the view (e.g., Neander 1998; Block 2011). But such HOTs should be expected so long as we recognize that consciousness is a matter of mental appearance. Though many theorists have denied that there is or could be an appearance/reality gap for the mind (e.g., Nagel, 1974, p. 174), there would seem to be no good reason to assume that, as Rosenthal has persuasively argued (e.g., 2005, pp. 43ff).

HOT theory thus does not conceive of consciousness as a property that HOTs somehow transfer to actually existing FO states (e.g., Rosenthal 2005, p. 185). Some interpret HOT theory along these lines (e.g., Wilberg 2010; Gennaro 2012); Brown (2012) calls these ‘relational’ interpretations of the view. But relational versions of HOT theory are distinct from Rosenthal’s own view, which Brown (2012) dubs the ‘nonrelational’ version. And relational versions are questionable for several reasons (see, e.g., Berger 2014; Pereplyotchik 2015). For one thing, it is hard to see how ordinary thoughts, HOTs, could transfer properties to another existing state. After all, one’s thoughts about tables transfer no properties to tables.

If HOTs are intentional states, and if suitable HOTs are sufficient for experience, then HOT theory satisfies the Exhaustion Thesis—and so HOT theory is a kind of representationalism, albeit from a HO perspective. Where FO representationalism takes the relevant content that determines phenomenal character to be worldly directed, HO representationalism takes it that phenomenal consciousness consists in the suitable representation of one’s mind.

Rosenthal, however, often writes in ways that might seem to deny this characterization. Rosenthal has long emphasized that HOTs are themselves typically *unconscious* states, which engender consciousness. After all, if HOTs were invariably conscious, then the view would face a vicious regress of requiring yet HO HOTs to make those second-order HOTs conscious. On Rosenthal’s view, HOTs themselves are seldom conscious and are conscious only in introspection, when they are targeted by third-order HOTs. Rosenthal thus claims that the states that are conscious are, properly speaking, the FO states of which we are aware via suitable HOTs, which may often (in targetless cases) be merely *notional* states (e.g., 2005, p. 130; Weisberg 2011a). The claim that Rosenthal’s view constitutes a kind of representationalism may thereby seem to confuse the (representational) properties of the HOTs, in virtue of which there is experience, with the properties of experiences themselves, whatever conscious states they might be. In other words, phenomenal consciousness is a feature of *the contents* of the HOTs.

But the claim that consciousness can and often is a property of contents or uninstantiated notional states strikes some as an odd or even unacceptable consequence of the theory (e.g., Wilberg 2010, p. 626). In reply, there are two reasonable alternative ways to construe HOT theory’s representationalism.

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<sup>4</sup> One can thus understand Rosenthal as denying either that there are qualia or that qualia are necessarily conscious; nothing hangs on this choice (see, e.g., Rosenthal 2005, p. 151, fn. 4).

First, we might take a page from FO representationalism’s playbook. FO representationalists often face a similar difficulty insofar as one might wonder how phenomenal character might consist in the suitable representation of perceptible properties, if one can have phenomenal experiences even when those perceptible properties are not instantiated, as in cases of hallucination. But as some representationalists have proposed, we can simply identify phenomenal character with the relevant *representations*, not the character of their *representata*. As Lycan (2019) puts it:

A slightly surprising but harmless consequence of the representational view as formulated here is that sensory qualities (“qualia” in our strict first-order sense) are not themselves properties of the experiences that present them: Sensory qualities are represented properties of represented objects, and so they are only intentionally present in experiences. The relevant properties *of* the experiences are, representing this quality or that. Of course, one could shift the meaning slightly and speak of “qualia” as properties of experiences, identifying them with representational features, such as the feature of representing this strict-sense sensory quality or that; nothing much hangs on this terminological choice (see also, e.g., Chalmers 2010, p. 342).

We might thereby regard suitable HOTs themselves as phenomenally conscious. Since the mental states that suitable HOTs represent are themselves mental representations, Brown (2015) calls this latter reading of the view the ‘Higher-Order Representation of a Representation’ (“HOROR”) theory. This HOROR view may seem to run afoul of the central motivation for HOT theory, the TP, insofar as it seemingly holds that there can be phenomenally conscious states of which one is unaware—that is, suitable HOTs—but it does not. The TP, as we construe it, is neutral regarding what item instantiates consciousness; it holds only that experience occurs when one is suitably aware of oneself as being in mental state. And, again, the claim that phenomenal character is a feature of representing relevant FO states is simply equivalent to the claim that it is a feature of those represented (notional) FO states.

Alternatively, if one is reluctant to attach phenomenal consciousness either to notional states or to HOTs, then one might follow Berger (2014), who urges that it is the individual, not any state, that is phenomenally conscious. Though we often speak of mental states’ being state or phenomenally conscious, this is a kind of loose talk. On this view, strictly speaking one is phenomenally conscious just in case one has a suitable HOT. Whichever construal of HOT theory we embrace, however, the view has the resources to explain consciousness in terms of mental representation alone.

### 3. Varieties of Representationalism

Given that there are many distinctions in the literature among kinds of FO representationalism (see, e.g., Chalmers 2010, chapter 11), what kind of representationalism does HOT theory constitute?

First, many distinguish between *pure* and *impure* forms of representationalism. Pure representationalism is the view that representational contents are all that are required to account for phenomenal character. Impure representationalism appeals to factors beyond representational content. Most representationalists hold a version of impure representationalism, largely because there can be unconscious representation and because the same content may be represented in various ways. One can visually represent some content, one can consciously represent it, one can doubt it, one can hope it, and so forth.

It is reasonable to interpret Rosenthal’s representationalism about consciousness as a kind of impure representationalism. On HOT theory, one experiences red because one has a *suitable* HO representation. The ‘suitable’ here indicates that not all HOTs engender consciousness. As Rosenthal has argued, suitable HOTs must meet various conditions: they must, for example, assert their contents. Doubting that one sees red or wondering whether or not one sees red cannot make

one aware of oneself as seeing red—and so does not result in one having a visual experience of red. A suitable HOT must assert that one currently sees red.

So-called ‘wide’ representationalism, by contrast, is the view that content of the relevant representations are determined by their external relations to their representational targets. *Narrow representationalism* is the view that the content of the relevant representations is determined internally. This distinction is often illustrated with familiar thought experiments. Suppose, for example, there were a community of people who experienced what you would call ‘red’ when they observed grass, but who still call it ‘green’. Now compare you looking at a tomato and a member of this hypothetical community observing grass. Do you experience the same color or not? Wide representationalists hold that you do not have the same experience because your experience represents red, whereas the other person’s experience represents green. The experiences have different wide contents. Narrow representationalism, by contrast, holds that you both have the same phenomenal character because you are in the same internal states. Even though your environments differ, and so even though the experiences represent different properties, they have the same narrow contents.

Theorists often further distinguish between (wide) *Russellian* and (narrow) *Fregean* representationalism. A Russellian content is one which involves attributing properties to objects. When one experiences red, one’s experience represents the world as instantiating the relevant perceptible property. Such a content is Russellian insofar as the conditions under which it would be satisfied involve a perceptible property’s being attributed to some object. Most FO representationalists hold some kind of impure wide Russellian representationalism (e.g., Dretske 1995; Tye 2000). But Fregean versions have been explored recently (e.g., Chalmers 2010), wherein the relevant contents involve (or just are) modes of presentations.

Rosenthal’s representationalism about consciousness is reasonably understood as being an *impure narrow Fregean higher-order representationalism*, which should be distinguished from the impure wide Russellian higher-order representationalism of the sort defended by some relationalist HOT theorists (e.g., Gennaro 2012). Why is the view narrow? On Rosenthal’s nonrelational version of HOT theory, since suitable HOTs are sufficient for experience, HOT duplicates are phenomenal duplicates. Gennaro’s (2012) so-called ‘wide intrinsicity view’, for example, is thus named to emphasize the fact that the content of the HOT includes the FO state itself.

Explaining why the view is Fregean is a bit more complex. The reason is that HOTs can make us aware of our FO states in various ways, which may affect phenomenology. In general, Rosenthal has argued that HOTs make one aware of FO states in some, but rarely (if ever) in all respects. Consider a visual experience of red. One can be aware of one’s perception as a seeing of (generic) red, as a seeing of some specific shade of red, and so on. And on Rosenthal’s view, these ways of being aware of one’s perception of red affect what it is like for one. The suitable HOT with the content “I see red” engenders a different sort of visual experience than the suitable HOT with the content “I see crimson.” It is thus reasonable to take Rosenthal’s view as invoking a kind of Fregean content.<sup>5</sup>

Understanding HOT theory as a kind of representationalism not only clarifies how the view works, but also shows why the view is not susceptible to many objections often leveled against it. That consciousness is a representationalist affair, for example, demonstrates why the targetless HOT objection is not an issue for the theory. The mental appearances that constitute consciousness are straightforwardly explained as intentionally inexistents, in the same way that standard FO

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<sup>5</sup> This view is plainly not the sort of Fregean representationalism that, for example, Chalmers (2010, p. 363) champions. On Chalmers’ complex view, a Fregean content is something of the form <the property that is disposed to cause experiences of type T in me>. For HOT theory, suitable HOTs’ contents are Fregean in this more modest way.

representationalists explain hallucination in terms of the intentional inexistence of the objects of perception.

Likewise, more recently some have urged that HOT theory is incapable of explaining certain kinds of phenomenology. Gottlieb (2015), for example, argues that standard HOT theory cannot explain the so-called ‘presentational phenomenology’ that putatively occurs when perceptually experiences seem to make present objects in our environments in a way that conscious thoughts do not. Gottlieb urges that since HOTs are ordinary thoughts, they cannot explain this difference in kinds of experiences. But as HOT theory is representationalist, it explains the differences among experiences not in terms of differences between *kinds* of HO representations (e.g., thoughts vs. perceptual states), but rather in terms of differences in those HO representations’ *contents*. Presuming there is such a thing as presentational phenomenology, it occurs when one is aware of oneself as being in states with mental qualities, as opposed, say, to being in states that exhibit only nonqualitative intentional content.

One might, however, worry that such a version of HOT theory denies that experience is genuinely qualitative. After all, if the mental qualities that we seem to be aware of in qualitative experience may be merely intentionally inexistent, it may seem that there really is no such thing as qualitative mentality. But this is a mistake. Once again, as representationalists often maintain, qualitative mentality consists in the suitable *representation* of qualities. On FO views, such qualities are the perceptible properties of external objects; on HOT theory, they are the mental qualities of perceptual and other states.

To fully appreciate the precise nature of the contents of such HOTs, however, we must explore how Rosenthal conceives of these qualitative mental properties. And it is to that theory of mental qualities that we now turn.

#### 4. QST and Representationalism

Rosenthal is clear that he does not think of mental qualities as mere *sensa*. If he did, then his view would amount to a kind of HO qualia view, in which experience consists in HO awareness of oneself as being in states that exhibit nonrepresentational qualitative features. But just as the qualia realist’s qualia are often thought to be irreducible or to resist naturalistic explanation, it is unclear that there could be a naturalistic explanation of such nonrepresentational mental qualities.

Since Rosenthal maintains that mental qualities can and do occur without being conscious, he argues that our best way to understand them is not in terms of our introspective awareness of them, as qualia realists often urge, but in terms of the roles they play in providing us perceptual access to perceptible properties. Mental red, for example, seems to be what enables us to tell perceptible red apart from the other perceptible colors. Such a theory is thus compatible with mental qualities’ enabling sensory discrimination that occurs outside of consciousness in subliminal perception.

Rosenthal observes that each of our sensory modalities provides us access to families of perceptible properties—vision enables us to discriminate among the perceptible colors; touch among textures; taste among flavors; and so on. As is well known, we can organize what a creature can perceptually discriminate via a particular modality into what is known as a ‘quality space’—a space of perceptible features organized along various dimensions which reflect the similarity-and-differences relations between those properties that the creature draws via that modality (e.g., Quine 1969; Kuehni 2010). The color quality space as discriminated by vision, for example, orders the colors such that red is closer to orange than it is to green—and is thought to be ordered along the dimensions of hue, saturation, and brightness.

To explain how creatures make such perceptual discriminations which are captured by the relevant quality spaces, Rosenthal maintains that creatures must be able to be in mental states that

vary at least as finely as the properties they discriminate. He thus proposes that we can posit spaces of mental qualities that are simply extrapolated from and thereby match their corresponding spaces of perceptible properties. Just as there is a space of perceptible colors in which red is closer to orange than it is to green, there must be a space of mental colors, in which mental red is closer to mental orange than it is to mental green. Since disparate perceptible properties, physically construed, may be discriminated as occupying the same locations within the quality spaces (e.g., *metamers*, or color properties with disparate spectral-reflectance profiles that look the same under standard viewing conditions), there will be a one-to-many, or *homomorphic*, mapping of mental qualities to perceptible properties, when the latter are described purely physically—and an isomorphic mapping when the latter are grouped in respect of discriminability.

Rosenthal argues that such quality spaces thereby identify and individuate mental qualities. Since mental red just is that property of visual states in virtue of which individuals distinguish perceptible red from the other perceptible colors, mental red just is the property that occupies a location in the space of mental qualities that corresponds to the location of perceptible red in the quality space of perceptible colors, from which the former space is simply extrapolated.<sup>6</sup>

Since mental qualities are understood as those properties that enable creatures to discriminate their corresponding perceptible properties, it is reasonable to hold, as Rosenthal (e.g., 2005, p. 208) himself maintains, that mental qualities *represent* their corresponding perceptible properties. The best explanation of how mental red enables one to discriminate the perceptible-color red is that the former represents the latter.

It thus seems that Rosenthal's view amounts to a kind of representationalism about mental qualities as well. But such a representationalism again differs from standard versions of the view. For one thing, this is a representationalism about the FO properties of mental states that can be, but need not be, conscious—and are conscious only when they are themselves represented by suitable HOTs. That is to say, phenomenal character consists in HO representations of FO representations, as HOROR theory urges, whereas *qualitative* character consists in FO representations of perceptible properties, which can and do occur unconsciously.

Another salient difference is that many versions of representationalism explain the nature of (FO) perceptual representation in terms of what are often called 'tracking theories' of mental content (e.g., Dretske 1995; Tye 2000), on which a perceptual state represents a perceptible property just in case it stands in the appropriate tracking relation to it; candidates include detecting, carrying information about, or causally co-varying under optimal conditions with the property (for a review, see Neander, 2006). These versions of so-called 'tracking representationalism' are thereby atomistic insofar as they hold that a perceptual state's content, and therefore phenomenal character, depends only on its standing in the right kind of *one-to-one* relation to the relevant perceptible property. It is consistent with tracking representationalism that a creature be capable of visually perceiving one color only.

QST, by contrast, explains mental qualities' representational natures *holistically*, in terms of their relations to one another in quality spaces. That is, Rosenthal's view would seem to amount to a kind of *holistic representationalism*, which depends on a theory of the content of qualitative states that Berger (2018) calls 'quality-space semantics' ("QSS"):

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<sup>6</sup> Similar accounts can be told for the other sensory modalities such as touch or smell, perceptual sensations of common sensibles such as shape or size, and interoceptive sensations such as pains, tickles, and itches (for an in depth account of QST as it applies to olfaction, for example, see, e.g., Young et al 2014).



**QSS:** Qualitative state S represents a perceptible property P of type T iff S occupies a location within the space of perceptual states extrapolated from the space of T-type perceptible properties that corresponds to the location of P within the space of T-type perceptible properties.

According to QSS, a visual state that exhibits mental red is accurate only if perceptible red is present and inaccurate otherwise. QSS thus echoes holistic theories of content such as *inferential-* or *conceptual-role semantics* (“CRS”) (e.g., Sellars 1963). On such views, a thought’s conceptual content depends (at least in part) on its inferential connections to other thoughts. The thought that it’s raining represents something like the state of affairs that it’s raining because, for example, one is disposed to infer from that thought various things (e.g., that one should grab one’s umbrella). Likewise, QSS holds that the fact that a mental quality represents a perceptible property constitutively depends on how that property would be discriminated from other perceptible properties, as captured by the quality space.

## 5. Mental Qualities and Mental Content

Rosenthal, however, seems to reject this reading of his view; he writes:

[T]hough qualitative states represent corresponding perceptible properties, representing by way of homomorphisms operates differently from representing by way of intentional content. So homomorphism theory doesn’t sustain a representationalist view on which qualitative character is at bottom a matter of intentional content (2005, p. 222).

Rosenthal seems to be questioning the idea that his view is representationalist about qualitative character, but what is he really highlighting is the fact that mental qualities represent things in a different way than ordinary intentional states such as HOTs, doubts, and hopes. This is important. But it is not something that representationalists need reject.

While some theorists do maintain that all conscious content is conceptual content (e.g., McDowell 1994), many representationalists maintain that qualitative states have *nonconceptual* content, however that distinction is drawn (e.g., Dretske 1995; Tye 2000).<sup>7</sup> We thus propose that mental qualities are the properties of having particular nonconceptual contents—they are modally specific ways of representing perceptible properties. Mental red is a mental representation of perceptible red that represents it in a distinctively visual way.

Understanding Rosenthal’s view in this way opens up new vistas for understanding his theory and connecting it to related debates. This understanding of mental qualities, for example, sheds light on our understanding of nonconceptual content in general. Some theorists have distinguished two notions of nonconceptual content (see, e.g., Byrne 2005)—and mental qualities (or the qualitative states that have them) are arguably nonconceptual in both ways. According to the *state conception* of nonconceptualism, a creature C is in a mental state M that has state nonconceptual content SN just in case it is possible for C to be in M and not possess the concepts that (canonically) specify SN. By contrast, according to the *content conception* of nonconceptualism, a creature C is in a mental state M that has content nonconceptual content CN just in case it is not possible for CN to be the content of a conceptual/cognitive state such as belief.

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<sup>7</sup> Terminology in this area is unsystematic; as a result, some debates may be without substance. Many, for instance, use ‘intentional’ and ‘representational’ interchangeably; thus taking ‘representationalism’ and ‘intentionalism’ to name the same view (e.g., Byrne 2001). Others reserve ‘intentional content’ for the conceptual or cognitive content of thought—and thus reserve ‘intentionalism’ for the view that experience is exhaustively cognitive or conceptual (e.g., Tye 2000, p. 63). This is why we prefer ‘representationalism’ for the view at issue—that experiences’ characters can be explained wholly in terms of their representational properties, prescinding from the question of whether or not there are multiple kinds of mental representations.

Qualitative states are state nonconceptual because the theory posits such (spaces of) properties to explain how creatures discriminate among perceptible properties in the first place. Without mental qualities, it is unclear how creatures could navigate their environments intelligently (cf. Quine 1969, p. 123). As Rosenthal notes, while QST is compatible with creatures' quality spaces being adjusted by learning, biological development, or other processes, they must be to some extent inborn. Conceptual contents, by contrast, are likely learned—and arguably learned on the basis of navigating one's environment via states with mental qualities. Creatures thus need not possess concepts in order to token mental qualities.

Qualitative states are also content nonconceptual. Rosenthal maintains that there are various ways in which the contents of thoughts would seem to differ from mental qualities' representational natures:

For one thing, mental qualities cannot be combined to form thoughts with syntactic structure. In addition, intentional states have characteristic mental attitudes, such as mental assertion, doubt, wondering, and so forth, and there is nothing in perceiving that corresponds to mental attitude or even holds any hope for explaining it. And though mental qualities do arguably represent the perceptible properties that correspond to them (e.g. Berger manuscript; Lewis 1972, 257; Rosenthal 2005, chs. 5-7, 2011), the way they represent is unlike that of intentional states. Intentional states represent truth-evaluable units, such as states of affairs; by contrast, the impressions and ideas that Hume's view accommodates simply represent perceptible properties, which are not truth evaluable (2012, p. 24).

On Rosenthal's view, mental red represents perceptible red in a way that cannot be combined with other mental representations to form thoughts in the way that the concept RED can. Consequently, qualitative states do not and cannot stand in inferential relations to one another or to other states in virtue of their mental qualities. Though mental red is more similar to mental orange than mental green, one cannot *infer* anything from mental red. Mental red does not imply, for example, some mental equivalent to nongreen. Indeed, as Rosenthal observes (e.g. 2012, p. 24, fn. 3), mental red can inaccurately represent red even if no red is present, but it cannot represent red as not present. One can, of course, infer something from the thought that one's perceptual state exhibits mental red, and one's thought can be true or false, but that is because the thought has the conceptual content that one has a reddish sensation. If one never has perceptual states that exhibit both mental red and mental green at the same mental location, it is because of the nature of those mental colors, not because of some inferential relation that holds between them. Since it is often held that the mark of conceptual states such as belief is that they stand in inferential relations, it is clear that mental qualities are not the kinds of contents that could be the contents of belief.

One might, however, object that Rosenthal's view does not count as a version of representationalism because mental qualities are not genuinely representations, as they fail to meet more specific criteria for representatationhood. Some, for example, maintain that there can be no representation without attribution or representation *as* (e.g., Burge 2010, p. 249). It might seem, then, that the mental qualities involve at best a weaker kind of relation to perceptible properties, such as merely detecting or carrying information about them. On this view, mental red might detect or carry information about red, but it does not genuinely represent it.

But while thought often or always involves attribution of properties to objects, it is unclear why qualitative representation must involve attribution. One might worry that if a state does not represent objects' as having properties, then there can be no misrepresentation. But this is not the case. QSS holds that if a mental quality represents red, then that representation is accurate only if red is present. Moreover, however we describe what mental qualities do, they are quite unlike other merely information-carrying states such as states of one's retina. States of the retina detect edges, but we may not want to call them representational; they are, to use Dennett's (1969) expression, merely

*subpersonal* states. But unlike such states, qualitative states are personal-level and can be and often are conscious. Moreover, they are richly integrated into our mental lives—perceptual states, for example, typically cause downstream perceptual thoughts about what one perceives. We must thus be careful to distinguish the information-carrying role of subpersonal states (such as states of the retina) from the function of personal-level representational mental qualities.

Rosenthal nonetheless rejects characterizing his view as representationalist. Again discussing Shoemaker's and Harman's versions of representationalism, he writes:

On Shoemaker's version of representationalism, the properties of qualitative states that we introspect are intentional, but that's not the case on the present account. We introspect qualitative properties as well. And, contrary to Harman's representationalist claim, we are conscious not only of the redness of the tomato, but of the mental qualities of our experience of the tomato. The HO states in virtue of which we are aware of such qualitative states are themselves intentional states; they are HOTs. But that doesn't sustain the representationalism put forth by Shoemaker or Harman (2005, p. 223).

If we understand Rosenthal's point, it is that the combination of QST and HOT theory is not representationalist because, when we introspect our perceptual experiences, we can be and often are aware not only of the perceptible qualities of objects in the world—such as perceptible colors—but also of the mental qualities of the perceptual experiences themselves.

Rosenthal's view does seem to cut against a claim that many representationalists do make—what is often known as the 'transparency' intuition or claim—that holds that the only qualities that we are ever aware of in experience are the qualities of objects that we sense or perceive there to be, not any qualities of those sensory or perceptual states themselves (e.g., Harman 1990; Tye 2000).<sup>8</sup>

But the transparency claim is, as many claims about introspection are, controversial. And whether or not experience is transparent, rejecting the putative transparency of perceptual experience does not entail that one rejects representationalism (indeed, not even all representationalists accept it; see, e.g., Chalmers 2010, p. 368). Although Rosenthal seems to build the transparency claim into his characterization of representationalism, we take the claim only to form the backbone of an *argument* for the view (e.g., Harman 1990; Tye 2000). Perhaps the main, or even only, reason to think that there are nonrepresentational properties of experience—qualia—is that such qualities are often thought to be available to introspection. But if (as the transparency claim has it) there are no such qualities available to introspection—if we are only aware of what experiences represent, not the experiences themselves—then it would seem that the best explanation is that there are no such mental qualities and that experience is exhaustively representational, as representationalism claims.

But it remains open that there could be a variety of representationalism that does not require experience to be transparent. And Rosenthal's view can be interpreted as holding that introspection may not seem transparent insofar as we can be aware introspectively of mental qualities *as such*—that is, not as representing anything—when in fact they do represent perceptible properties. Introspection is not transparent, but perception does not exhibit any (metaphysically) nonrepresentational features. And this, we maintain, is compatible with representationalism.

A fruitful consequence of our interpretation of Rosenthal's view is that it delivers what we might regard as a kind of *pseudo-transparency*. Since mental red is a distinctively visual (nonconceptual) way of representing perceptible red, the content of the suitable HOT that engenders a visual experience of red may be rendered as something like "I am aware of perceptible red in a distinctively visual way" (see, e.g., Rosenthal 2005, p. 123). There is thus a kind of awareness of external objects and properties represented in perceptual experience, though such awareness is oblique and an *actual*

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<sup>8</sup> For an interesting discussion of whether or not Rosenthal's view can reject the transparency claim, see Gottlieb (2016).

awareness of those objects and properties plays no role in determining the character of perceptual experience.<sup>9</sup>

We hazard that Rosenthal's reluctance to endorse transparency and the representationalism it often brings in tow stems from a worry about *eliminativism* about mental qualities (see, e.g., 2019, p. 54). And it is true that most representationalists are *phenomenal externalists* insofar as they hold that the only qualities that exist are the qualities of external objects that we perceptually represent there to be (e.g., Harman 1990; Tye 2000). But this is because representationalists and qualia realists alike often assume that if there were *mental* qualities, they would be nonrepresentational qualia. Many assume that affording mental properties any representational role entails that such properties are not genuinely qualitative.

Some qualia realists do propose that qualia are representational, but in a defanged fashion that is understandably objectionable to representationalists. Block (e.g., 2007), for example, claims that some qualia are *mental paint* insofar as they may function to represent perceptible properties, akin to the way in which colored paint may function to represent colors. But it is not part of mental paint's nature to be representational—and Block maintains that the very same mental paint may represent different perceptible colors for different individuals, as in cases of undetectable quality inversion. Unsurprisingly, representationalists deny there are such properties (see, e.g., Harman 1990).

We may regard Rosenthal as defending a compromise between qualia views and representationalism. On Rosenthal's view, undetectable quality inversion is impossible; mental qualities represent their particular corresponding perceptible properties only—and thus any difference in how individuals perceive things is in principle detectable. We can thereby reject the (unfounded) insistence that we are never aware mental qualities without endorsing a view that admits (problematic) nonrepresentational qualia. We may distinguish two kinds of qualities—the mental and the perceptible—and hold that the former *genuinely* represent the latter.

In a recent paper, Rosenthal seems to resist even this reading of his view; he writes:

Quality-space theory defines a representational role for mental qualities. But quality-space theory is not a type of representationalism. Mental qualities are the distinguishing mental properties of perceptual states, and are independent of any representational role. We taxonomize and individuate qualitative states and explain their nature not by appeal to their representational role, but their role in perceptual discrimination. Indeed, the only sound reason for taking mental qualities to represent stimulus properties is the role they play in perceptual discrimination. Discriminative role forges the tie mental qualities have to stimulus properties, and mental qualities represent only because of that tie (2019, p. 54).

But there are reasons to question Rosenthal's argument here. First, as noted in the Introduction, representationalism is independently attractive. Second, arguably the best explanation of mental qualities' roles in perceptual discrimination is that they represent their corresponding perceptible properties. And, third, even if we can understand mental qualities without adverting to their representational characters, we expect that Rosenthal would agree that mental qualities cannot vary independently of their corresponding nonconceptual contents.

Does this view thereby amount to a kind of representationalism? The issue is delicate—and perhaps does depend on how one wishes to use 'representationalism'. The view proposed here does acknowledge that mental qualities have, as it were, a life independent of content. But representationalism is often cast as the supervenience thesis that the character of experience supervenes on its representational content (e.g., Byrne 2001)—and Rosenthal's view does seem at

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<sup>9</sup> One could thus maintain there is a kind of Russellian content associated with perceptual experiences that involves the physical object in one's environment and its properties, though this content does not determine phenomenal character.

least to meet this characterization. Even if Rosenthal is correct that mental qualities are not *identical* with mental representations, it would seem open to hold that mental contents *supervene* on mental qualities and *vice versa*. In other words, Rosenthal's view would seem to satisfy the Exhaustion Thesis suitably reframed not in terms of phenomenal character (which we take to involve consciousness), but in terms of qualitative character. On that reading of the thesis, for every qualitative character Q there is some content C such that a state with Q is nothing more than a qualitative state with content C. As we understand Rosenthal's view, a qualitative state just is a state that enables discrimination—and in that way has a particular content.<sup>10</sup>

## 6. Conclusions

Rosenthal's views seem to constitute a unique and especially promising version of representationalism. On the combination of HOT theory and QST, qualitative experience occurs when one is aware of oneself as being in states with mental qualities. And we have argued that mental qualities are best construed as having a kind of nonconceptual content, though one need not in experience be aware of those qualities as representations. So where does this leave us? In short, experiences are determined by being in conceptual states—a suitable HOTs—and consist in *conceptualized states with nonconceptual contents that need not be conceptualized as having contents*. This is Rosenthal's representationalism.<sup>11</sup>

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<sup>10</sup> Theorists do distinguish what is often called 'strong representationalism'—the view that qualitative character is identical with certain representational properties, or what we have simply been calling 'representationalism'—from the weaker view, often called 'weak representationalism', that qualitative states merely have contents (see, e.g., Chalmers 2010, p. 344). As some have observed, weak representationalism is rarely denied, except perhaps by some naïve realists; it would seem, for example, consistent with Block's views on mental paint. We might thus read Rosenthal as minimally defending a version of weak representationalism—though we think the forgoing give us good reasons to hold that he defends a (suitably qualified) version of strong representationalism.

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