Conceptualizing Consciousness

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Abstract

One of the most promising theories of consciousness currently available is higher-order thought (“HOT”) theory, according to which consciousness consists in having suitable HOTs regarding one’s mental life. But critiques of HOT theory abound. We explore here three recent objections to the theory, which we argue at bottom founder for the same reason. While many theorists today assume that consciousness is a feature of the actually existing mental states in virtue of which one has experiences, this assumption is in tension with the underlying motivations for HOT theory and arguably false. We urge that these objections, though sophisticated, trade on this questionable conception of consciousness, thereby begging the question against HOT theory. We then explain how HOT theory might instead understand consciousness.

Keywords: consciousness; HOT theory; mental states; mental appearance; awareness

1. Introduction

According to the higher-order thought (“HOT”) theory of consciousness, one has an experience (e.g., a conscious thought or perceptual experience) just in case one is aware of oneself as having a kind of mental life (e.g., a perception of or thought about something) via a suitable HOT (e.g., Rosenthal 1986; 2002; 2005; Weisberg 2011a). According to HOT theory, for example, a visual

experience of the color red consists in one's being aware of oneself as seeing red via the suitable HOT that one, oneself, currently sees red. Since a range of folk-psychological and experimental evidence supports the view (see, e.g., Lau & Rosenthal 2011; Berger 2014; Brown 2015; Lau & Brown 2019), we regard it as among the most promising theories of consciousness currently available.

Like any good theory in contemporary consciousness studies, however, HOT theory has encountered many objections (e.g., Byrne 1997; Neander 1998; Levine 2001; Block 2011). Although many of these criticisms have been adequately addressed elsewhere (e.g., Rosenthal 2005; 2011; Weisberg 2011a; 2011b; Brown 2012; 2015; Berger 2014; Pereplyotchik 2015; LeDoux & Brown 2017; Lau & Brown 2019), a series of new challenges have arisen. Our goals in this paper are thus twofold. First, we aim to defend HOT theory from three recent objections—those of Gottlieb (2015), Picciuto (2017), and Farrell (2018)—which we argue founder for essentially the same reason. But we explore these objections in service of our second, and more central, objective: to clarify how HOT theory can and should understand consciousness.

In short, we argue that much of the recent debate has been framed in a way that tacitly begs the question against what we take to be the most promising version of HOT theory—the version most notably developed and defended by Rosenthal (e.g., 1986; 2002; 2005).¹ In

¹ Over the years different ways of interpreting and articulating the theory have been developed (for overviews, see, e.g., Lau & Rosenthal 2011; Gennaro 2012; Brown 2015). We regard the version of HOT theory that we defend here as simply an exposition or extension of what has already said about HOT theory previously by theorists such as Rosenthal and Weisberg (2011a).

particular, we urge that the objections to HOT theory that we discuss rest on an optional assumption about the nature of consciousness, which this version of HOT theory rejects. It may seem natural and is common within the contemporary philosophy of mind to assume that what it is to have experiences is to be in actually existing mental states, in virtue of which one experiences, that have the property of being conscious. One might assume, for example, that to visually experience red is to be in an actual state of seeing red that is conscious. We'll call this assumption the 'EXPERIENTIAL-PROPERTY ASSUMPTION'. As some HOT theorists have observed and we elaborate here, however, this EXPERIENTIAL-PROPERTY ASSUMPTION is not only in tension with the basic motivations for HOT theory, but also arguably false.

We begin in Section 2 by clarifying the notion of consciousness at issue. Then, in Section 3, we introduce the EXPERIENTIAL-PROPERTY ASSUMPTION, which we take to be at the heart of much contemporary theorizing about consciousness. In Section 4, we explain why and how HOT theory rejects this assumption. We explore in Section 5 three recent objections to HOT theory, illustrating why they fail due to this question-begging conception of consciousness.² We close in Section 6, discussing how HOT theory might instead understand consciousness.

That is, we take the theory described here to be the *standard* version of HOT theory. But we do not wish to get into debates about how to interpret other HOT theorists; rather, if one prefers, one can read this paper as defending a reasonable version of the view. Going forward, references to HOT theory refer to this version, unless otherwise noted.

² Although there are other recent objections to HOT theory that warrant exploration (e.g., Sebastián 2018; Stoljar 2018), we focus on these considerations because they in particular provide a useful opportunity to explain how the theory works.

2. What does HOT theory seek to explain?

Since it is well known that ‘consciousness’ and related expressions are multiply ambiguous (see, e.g., Rosenthal 2002), it is necessary first to clarify what debates about consciousness are about—what theories of consciousness such as HOT theory seek to explain.

HOT theory, and higher-order (“HO”) theories in general (e.g., Armstrong 1968; Genarro 2012), are typically put forward as accounts of what Rosenthal has called ‘state consciousness’. As Rosenthal often puts it, a mental state’s being (state) conscious consists in one being suitably aware of oneself as being in it.³ And the central insight of HO theories is that state consciousness involves *distinct* states of HO awareness or representations of typically first-order (“FO”) mentality.⁴ HOT theory in particular hypothesizes the relevant HO awareness involves a particular kind of thought—occurrent HOTs to the effect that one is, oneself, in such-and-such mental condition.

Many theorists in contemporary consciousness studies, however, regard the most puzzling notion to be what Block (1995) dubbed ‘phenomenal consciousness’. Following Nagel (1974), Block proposes that a mental state is phenomenally conscious just in case *there is something that it is like to be in it*. And Block principally distinguishes phenomenal

³ Following Rosenthal (e.g., 2005, p. 4) and (largely) standard usage, we distinguish between (transitive) awareness—the property of being aware of something, which can occur unconsciously—and (state) consciousness.

⁴ We use ‘first-order’ simply to denote mental states that are not of or about mental states and ‘higher-order’ to denote states of or about other states.

consciousness from a mental state's being *access conscious* insofar as the information contained in it is available to influence the rest of one's mind and behavior.

Although critics of HOT theory often regard it as at best a theory of access, or perhaps only introspective, consciousness (e.g., Block 2011), the theory is reasonably construed as a theory of phenomenal consciousness as well (see, e.g., Brown 2012; Gottlieb 2020). It is, to use Block's (2011) terminology, an *ambitious* HO view, as opposed to a *modest* view which does not have such explanatory ambitions. To see why, consider that one of the central motivations for HOT theory—the folk-psychological datum that Rosenthal (e.g., 2005, p. 4) has called the 'Transitivity Principle' ("TP")—can be construed both in terms of state and phenomenal consciousness. As Rosenthal observes, common sense has it that if one is in a mental state, but in no way aware of being in that mental state, then that mental state is not conscious. The contrapositive of this claim is the TP, according to which one is in a state-conscious mental state—or, as we will often put it for reasons that will become clear shortly, one has an *experience*—only if one is somehow aware of oneself as being in a mental state. But it is also true that 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 claim is simply equivalent to the observation that one has a phenomenal experience only if one is somehow aware of oneself as being in a mental state.

We thus take 'state' and 'phenomenal' consciousness, as well as related expressions, to have the same reference as simply 'experience', a notion widely shared between HO and non-HO theorists alike (see, e.g., Weisberg 2011b; Chalmers 2015).

3. Introducing the EXPERIENTIAL-PROPERTY ASSUMPTION

What is the metaphysics of experience? What sort of property is consciousness? It is quite common for theorists in the contemporary philosophy of mind to make the EXPERIENTIAL-PROPERTY ASSUMPTION—that there are mental states *in virtue of which* one has an experience and that experience consists in those states’ exhibiting consciousness-making properties, often known as ‘qualia’, ‘phenomenal properties’, and the like (e.g., Nagel 1974; Block 1995; Levine 2001; Chalmers 2010). Views which accept the EXPERIENTIAL-PROPERTY ASSUMPTION thus typically hold that FO mental states themselves bear the property of being conscious. A standard way of making the EXPERIENTIAL-PROPERTY ASSUMPTION, for example, is to hold that a visual experience of the color red occurs when the FO visual perception of red itself has (or acquires) some property such as a red quale in virtue of which that FO state is conscious.

Endorsing the EXPERIENTIAL-PROPERTY ASSUMPTION does not, however, commit one to a particular theory of consciousness—that is, to a particular account of the underlying nature of such consciousness-making properties. As we shall see, although the EXPERIENTIAL-PROPERTY ASSUMPTION perhaps fits more naturally with FO theories of consciousness, which deny that consciousness consists in any HO phenomenon, the assumption is compatible with certain HO views, including some interpretations of HOT theory. Making the EXPERIENTIAL-PROPERTY ASSUMPTION does not, for example, commit one to widely held nonreductive view of qualia on which they are intrinsic, nonrepresentational, and introspectively manifest features of experiences (see, e.g., Block 1995; Levine 2001; Chalmers 2010). Although many theorists who embrace the EXPERIENTIAL-PROPERTY ASSUMPTION conceive of qualia in such irreducible nonphysical terms, others unpack the consciousness-making features neurally or functionally. On Prinz’s FO attentional theory, for example, a FO mental state is conscious only if it is suitably

modulated by attention. Such suitable attentional modulation is thus the relevant consciousness-making property of actually existing FO states.

The EXPERIENTIAL-PROPERTY ASSUMPTION is likewise compatible with diverse views about the structure of experience such as intentionalism, standard versions of which hold that the phenomenal character of experience is identical with an experience's representational properties (e.g., Harman 1990), or naïve realism, standard versions of which hold that the phenomenal character of perceptual experience consists in one's suitable relations to perceived objects (e.g., Campbell 2002). While such views often deny that there are any nonrepresentational qualitative features of experiences, they too maintain that there are states and that consciousness consists in those states' exhibiting appropriate representational or relational properties.

The EXPERIENTIAL-PROPERTY ASSUMPTION is doubtless intuitive to many; indeed, 'experience' might seem to be simply defined as a mental state in virtue of which one experiences. The assumption thereby collapses the distinction between the mental state or states in virtue of which one experiences and experiences themselves, maintaining that such states have the same properties as experiences insofar as the latter are simply the former suitably modified. But there is at least a conceptual distinction between experiences and the states in virtue of which one experiences. Just as one may have the property of being a father in virtue of standing in a parental relationship to a child, though the father need not share any other properties in common with the child, one can have an experience in virtue of being in a state though that state need not be conscious. Views which reject the EXPERIENTIAL-PROPERTY ASSUMPTION, then, reject that experiences and the states in virtue of which one experiences must have the same properties. In other words, as Rosenthal often puts it (e.g., 2005, p. 156), it is open that a state's consciousness is distinct from its other mental properties.

4. HOT theory and the EXPERIENTIAL-PROPERTY ASSUMPTION

At first, it might seem that the EXPERIENTIAL-PROPERTY ASSUMPTION simply begs the question against HOT theory, which holds that one experiences in virtue of being in suitable HOTs, though such HOTs are posited to be themselves seldom conscious. But many critics of HOT theory, and even some proponents of versions of the view, maintain that it in fact makes the assumption. On a common reading of HOT theory, a state is conscious just in case it is accompanied by a suitable HOT that somehow transfers the property of consciousness to that target state (e.g., Wilberg 2010; Gennaro 2012). To assume that HOT theory works this way is to assume not only the EXPERIENTIAL-PROPERTY ASSUMPTION, but also what Brown (2012) calls the ‘relational’ reading of the view, on which consciousness involves a relation between two actually existing and suitably related states.

HOT theory need not be understood this way, however. Instead, Rosenthal (e.g., 2005, pp. 209-213) has been clear that we ought to understand the theory in what Brown (2012) has called the ‘nonrelational’ way, according to which a suitable HOT is, on its own, both necessary and sufficient for experience.

Although we cannot offer here a full-fledged defense of HO theories in general, let alone the version of HOT theory developed here in particular, we note that there is much evidence for such a nonrelational view. We recall that a central motivation for HOT theory, the TP, holds that one has an experience only if one is somehow aware of oneself as being in a mental state. Another way of putting that claim is that one has an experience only if it *suitably seems* to one that one is in a mental state. That is, it is built into our commonsense conception of

consciousness that it is, as Rosenthal often emphasizes (e.g., 2011, p. 431), a matter of *mental appearance*: how one's mentality subjectively appears to one from the first-person point of view.

But appearances are typically if not always distinct from their realities—and appearances can in general diverge from reality. It may visually appear to one that there is an apple present, though plainly one's visual impression is metaphysically distinct from the apple itself, and one may have that visual impression of an apple even if no such apple is present. It is thus similarly a central claim of Rosenthal's nonrelational HOT theory that the states constituting one's mental reality and the states constituting consciousness—the awareness as of being in those states—are distinct. On this version of HOT theory, what it is to consciously see red, or to be in a conscious state of seeing red, is simply for it to suitably seem to one that one sees red—that is, to be aware of oneself as seeing red via a suitable HOT—though one need not actually see red.

This is not to say that consciousness does not exist or is an illusion, as so-called 'eliminativists' or 'illusionists' about consciousness claim (see, e.g., the essays in Frankish 2017). HOT theory holds that consciousness exists; when one experiences, one's mental appearances are perfectly real: there are actually existing suitable HOTs responsible for the relevant mental appearances. Moreover, when one has a suitable HOT, one always represents something that exists—namely, oneself. But just as one can have a thought of oneself as being tall when one is in fact short, one can have a HOT about—and thus be aware of oneself as—seeing red, even if one does not see red (see, e.g., Berger 2014). The neural correlates of experience are thus the neural correlates of suitable HOTs. It is just to say that the (FO) mental states that those HOTs *represent* one as being in need not exist.

Many theorists maintain that there is no appearance/reality distinction when it comes to the mind or that such a distinction is of dubious coherence (e.g., Nagel 1974). One might think

that if it seems to one subjectively that one is in pain, one must be in pain—after all, what else could there be in pain if not the appearance of pain in consciousness! But HOT theorists have argued that such a distinction is not only perfectly intelligible (e.g., Rosenthal 2011; Weisberg 2011a; Berger 2014; Brown 2015; Pereplyotchik 2015), but also arguably theoretically helpful (e.g., Lau & Brown 2019), explaining phenomena such as dental fear or rare Charles Bonnet syndrome (for discussion, see, e.g., Rosenthal 2005, p. 127; LeDoux & Brown 2017), cases wherein one’s FO mental life diverges from how that many life subjectively appears to one. True, when it subjectively seems that one is in a state such as pain, one is more often than not in the state such as the pain that it appears that one is in. But, fundamentally, experience is suitable mental appearance—and it is at least *possible* that such appearances are inaccurate. That consciousness is a matter of mental appearance is, we think, what sets the kind of HO view defended here apart from most other theories of consciousness. To assume otherwise is often in effect a way of making the EXPERIENTIAL-PROPERTY ASSUMPTION.

Many critics of HOT theory nonetheless regard the possibility of such misrepresentational or targetless HOTs as forming the basis of perhaps the gravest problem for the view (e.g., Byrne 1997; Neander 1998; Block 2011). One might wonder, for example, whether what it is like for one is determined by the actual FO mental state one is in, the relevant HOT, both, or neither. But it is a peculiar feature of intentionality in general that it can represent there as being things that do not exist or misrepresent things that do exist as being ways that they are not—and there is no good reason to think that we cannot misrepresent feature of ourselves via HOTs. This is why Rosenthal and others have been clear that a suitable HOT—the suitable mental impression of one’s mental life—is not only necessary, but also sufficient, for experience.

It should thus be clear why this kind of HOT theory rejects the EXPERIENTIAL-PROPERTY ASSUMPTION. As Rosenthal and others have been explicit, consciousness is not a property possessed by HOTs, nor conveyed by HOTs to actual target states (e.g., 2005, p. 185; see also, e.g., Berger 2014).⁵ Again, HOT are themselves posited to be seldom conscious—and are hypothesized to be conscious themselves only when targeted by yet third-order HOTs, which provide HOT theory’s account of introspection. Indeed, it is hard to see how HOTs, which are simply thoughts, could somehow transfer consciousness to their targets. After all, it can appear to one in thought that there is a table present, but such a thought cannot transfer any properties to that table, whether or not the table actually exists.

According to HOT theory, then, we may say that suitable HOTs *engender* experience—it is in virtue of being in suitable HOTs that one experiences—without themselves being experiences or having the property of consciousness. The HOT constitutes, but is not identical with, consciousness. By analogy, just as a state of anger is not itself angry or a state of seeing red does not itself see, but it is in virtue of being in such states that an individual is angry or sees, it is in virtue of having a HOT that an individual has an experience.

Some proponents of EXPERIENTIAL-PROPERTY ASSUMPTION have acknowledged that HOT theory need not make it; for example, Nida-Rümelin recently writes:

⁵ This is why many well-known objections to HOT theory, such as what is often called the ‘problem of the rock’—the worry that if HOT theory were true, then one could have a HOT about a rock, but it is absurd to think that a rock could thereby be conscious (e.g., Gennaro 2012, section 4.3)—are not problems for this version of the theory.

Experiential properties however are, by stipulation, such that instantiating them just is to be in a state with a specific phenomenology and therefore in a state which is phenomenally conscious. Perhaps the proponent of the higher order theory of consciousness must reply at this point that there is no reason to suppose that any genuine kind of properties can be picked out by that stipulation (2018, p. 3381, fn. 13).⁶

Nida-Rümelin is correct. On the understanding of consciousness and the resultant version of HOT theory we highlight, experience occurs solely as a function of suitable HO awareness; consciousness need not be understood as a property of the actually existing states in virtue of which one experiences.

4.1. *Rejecting the EXPERIENTIAL-PROPERTY ASSUMPTION*

⁶ Indeed, Nida-Rümelin (2018) identifies what she takes to be a questionable assumption within the philosophy of mind—what she calls ‘the framework of experiential properties’—which is similar to the EXPERIENTIAL-PROPERTY ASSUMPTION. Nida-Rümelin claims that it is a mistake to think that mental states exhibit experiential properties; rather, she argues, individuals exhibit experiential properties (cf. Berger 2014). Rejecting the EXPERIENTIAL-PROPERTY ASSUMPTION, however, does not require that we deny that consciousness can be described as a property of states, though as we shall see this is one way to avoid making the assumption. We note that, somewhat ironically, elsewhere in the paper Nida-Rümelin proposes that much of HOT theory’s appeal is that it would seem to uphold the framework of experiential properties—and she argues the view is thereby problematic. But while perhaps relational HOT theories make these errors, the kind of HOT theory developed here does not make either assumption.

Rejecting the EXPERIENTIAL-PROPERTY ASSUMPTION may nonetheless strike some as questionable or even incoherent. We urge, however, that while all theorists accept that there is experience—and that there is thus a question about what state(s) a creature must be in to have an experience—nothing in our ordinary conception of experience says anything about its underlying metaphysical structure. Our concept of experience does not require that it involves actual states' exhibiting phenomenal properties or something else altogether.

It is not even clear what the *independent* appeal of the EXPERIENTIAL-PROPERTY ASSUMPTION is, let alone its justification. One might think, for example, that introspection reveals experiences to be conscious—and that consciousness must therefore be a feature of mental states. But while experiences are plainly conscious, nothing about our introspective awareness of them reveals that their nature consists in a feature of the states in virtue of which they are conscious. If anything, introspection is silent on the issue of the underlying metaphysics of experience. And even if introspection were to take such a stand, it is far from obvious that introspection must be accurate about the nature of experience that it presents.

One might think the EXPERIENTIAL-PROPERTY ASSUMPTION is at the heart of consciousness studies insofar as many assume that the central question of the field is: what explains how an otherwise unconscious mental state *becomes* conscious? As is well known, much experimental evidence suggests that mental kinds such as perceptual states, thoughts, and emotional states can occur not only consciously, but also without being conscious, as in cases of the pathological condition blindsight or distracted deliberation (see respectively, e.g., Weiskrantz

1997; Dijksterhuis & Strick 2016).⁷ One might thus conclude that a theory of consciousness seeks to explain the nature of the property that such actually existing unconscious mental state tokens acquire in order to become conscious. And this way of casting the goal of theories of consciousness naturally makes the EXPERIENTIAL-PROPERTY ASSUMPTION.

But such a characterization of *explananda* theories of consciousness seek to explain begs the question against views that hold that experiences are intrinsically different than unconscious mental states (e.g., Chalmers 2010), and arguably against certain HO views as well. A better way to frame the central question of consciousness studies, then, is to explain how experiences differ from their nonconscious counterparts. This characterization is neutral regarding theories of consciousness and does not make the EXPERIENTIAL-PROPERTY ASSUMPTION.

One might object that rejecting the EXPERIENTIAL-PROPERTY ASSUMPTION runs afoul of what we claimed above is the central task for the theory—namely, to explain the difference between a conscious state and its nonconscious counterpart—but it does not. Unless one makes the assumption in the first place, one need not expect that that the difference consists in a property of *that very existing state*. Instead, we can claim that a visual experience of red and its counterpart subliminal visual perception of red differ insofar as the latter involves the actual FO seeing of red, but does not involve the suitable mental appearance of seeing red, whereas the former involves the suitable mental appearance but need not involve the actual FO seeing.

⁷ Although some theorists have recently expressed some skepticism about much of the evidence for unconscious mentality, the issue is far from settled (see, e.g., Phillips & Block 2016); we proceed here on the assumption that there are unconscious mental states.

Is it not a truism, however, that if a creature is in a conscious state, then there is a state that has the property of being conscious? Arguably not. As Rosenthal has proposed (e.g., 2011, p. 432), we may regard the expression ‘is in a conscious state’ as *nonextensional*. On this interpretation, one’s being in a conscious state of seeing red does not entail that one sees red; it entails only that one is aware of oneself as seeing red.

If one prefers, however, it is also open to reject the entire framework of talking about experience as a state or consciousness as a property of *states* in general (see, e.g., Berger 2014; Nida-Rümelin 2018), talk which seems to invite the EXPERIENTIAL-PROPERTY ASSUMPTION. On this proposal, while we might say that *individuals* have the property of experiencing, we need not say that they are in particular states that are conscious. This may seem to be a radical suggestion. But, as Rosenthal (e.g., 2005, p. 5) has observed, prior to the 20th Century, philosophers such as Aristotle or Locke rarely described mental states themselves as conscious; to the extent that such thinkers discussed consciousness in general, they often spoke of mental states of which we are aware. Likewise, when Nagel himself introduced his widely used “what it’s like” terminology, he spoke only of what it is like to be organism—what it is like *for* a creature. It is only more recently that theorists have shifted to speaking of mental states’ themselves being conscious. Such a shift may seem quite natural. After all, the notion of *state consciousness* may seem to suggest that it is a property of actual mental states. And as some have observed (e.g., Chalmers 2010, p. 504), it may seem that we can interchangeably speak of *phenomenal states* of individuals—conditions under which there is something that it is like to be an individual—and *phenomenally conscious mental states*, or the mental states in virtue of which there is something that it is like to be an individual.

But such shifts run the risk of smuggling in the EXPERIENTIAL-PROPERTY ASSUMPTION. And there are ways to interpret the TP, and thus HOT theory, that avoid attributing consciousness to the states in virtue of which there is consciousness. While the TP is often glossed as the claim that a mental state is conscious only if one is somehow aware of it, it can be equally stated as holding that there is consciousness, or experience, only if one is somehow aware of being in a mental state. HOT theory thus holds that one has an experience, or is in a phenomenal state, just in case one is aware of oneself as being in a state via HOT. In section 6, we note that there is a way for HOT theorists to accommodate the equivalence between talk of experiences (phenomenal states of individuals) and conscious states (phenomenally conscious mental states), but for now we note that it is perhaps clearest to speak of HOTs' engendering, without being, experiences.

Our goal in the next section is to show how three recent objections to HOT theory trade, often in a tacit way, on the EXPERIENTIAL-PROPERTY ASSUMPTION. Since the assumption is arguably false, theorists that reject HOT theory on the grounds that the view does not make it thereby beg the question against the view.

5. Some recent objections to HOT Theory

Let us begin with a sophisticated argument from Farrell (2018).

5.1. *Farrell on what it's like*

Farrell's aim is to show that the sense of 'consciousness' picked out by HOT theory cannot account for what it is like to have experiences. His argument hinges on a distinction between what he calls 'SOMETHING' and 'WHAT', which he (p. 2745) introduces as follows:

SOMETHING: There is something it is like for S to be in M.

WHAT: There is an occurrence of what-it-is-like-ness associated with M.

While these locutions are a bit awkward, their intended meanings are fairly clear. Consider Jackson's (1982) famous case of Mary in her black-and-white room. Before she has consciously seen red, it would seem true that there is something that it is like for Mary to see red; it is simply that she has never had that experience. But once she has consciously seen red, then there will be an occurrence of what-it-is-like-ness associated with her visual experience of red.

Farrell's argument begins by consideration of a version of the misrepresentation objection alluded to above. Farrell's version is put in terms of a mental state, M, and a subject, S:

(M1) M is conscious & S is not in M.

(M2) If M is conscious, then there is something it is like for S to be in M.

(M3) If there is something it is like for S to be in M, there is an occurrence of what-it-is-like-ness associated with M.

(M4) If there is an occurrence of what-it-is-like-ness associated with M, S is in M.

(M5) If there is something it is like for S to be in M, S is in M. (From (M3, M4)).

(M6) S is in M. (From (M1), (M2), (M5)).

(M7) S is not in M. (From (M1)).

(M8) S is in M & S is not in M. (From (M6), (M7)) (pp. 2746-2747).

We note that HOT theory as we have formulated it accepts M1 and M2 as detailed above. M's being conscious just is the occurrence of the relevant HOT. For our purposes, then, the crucial

premises are (M3), (M4), and (M5). According to Farrell, the HOT theorist must reject (M5).⁸ Since (M5) is entailed by (M3) and (M4), Farrell maintains that the HOT theorist must reject one of these premises. As we will see, he argues that the HOT theorist cannot reject (M3) and therefore must reject (M4), but in so doing it would seem that HOT theorists have changed the subject and thus have not responded to the argument.

But the HOT theorist should reject both (M3) and (M4). Why does Farrell think the HOT theorist cannot reject (M3)? To make his case, he distinguishes between *occurrent* and *non-occurrent* readings of SOMETHING (p. 2748). The difference between these two readings comes down to whether making SOMETHING true requires that there is an occurrence of what-it-is-likeness. On the non-occurrent reading of SOMETHING, it can be true that there is something that it is like for one to see red even when there is no occurrence of what-it-is-likeness (e.g. Mary in her room before she has seen red). On the occurrent reading of SOMETHING, by contrast, there is an entailment from there being something that it is like for one to see red to an occurrence of what-it-is-likeness (p. 2748). Farrell argues that the non-occurrent reading is standard (and we

⁸ HOT theorists might reject Farrell's (M1), on a certain construal of the theory. As we detail in Section 6, for example, Brown's (2015) HOROR theory holds that the suitable HOTs themselves are (phenomenally) conscious insofar as they are the states in virtue of which there is something that it is like for the creature to have experiences. Similarly, on Lau's so-called 'Joint-Determination' view (e.g., Lau & Brown 2019), consciousness is jointly determined by both an actually existing FO state and a suitable HOT. On these versions of HOT theory, then, (M1) is false if interpreted as designating phenomenal consciousness (see, e.g., Gottlieb 2020).

will go along with him on that here) and that, if HOT theorists had this reading in mind, they could reject (M3).

Farrell argues, however, that HOT theory is committed to the non-standard occurrent reading of SOMETHING. But in doing so Farrell makes the questionable EXPERIENTIAL-PROPERTY ASSUMPTION—namely, that FO states are conscious intrinsically (or non-relationally) in virtue of exhibiting consciousness-making properties. Indeed, Farrell’s mistake is made explicit when he writes that “on non-occurrent readings of SOMETHING, to say that there is something it is like for S to be in M is to say that *when* S is in M, S undergoes phenomenology associated with M” (p. 2749). This would be the case only if one were making the EXPERIENTIAL-PROPERTY ASSUMPTION—namely, that the occurrence of M is accompanied by some consciousness-making property. What Farrell should have claimed, however, is that there being something it’s like for S to be in M is a matter of S undergoing the phenomenology associated with M *when S is consciously in M*. And according to the HOT theory, S is consciously in M when one has an appropriate HOT representing that one is in M, which need not require that S be in M.⁹

⁹ But what about (M4)? Recall that (M4) holds:

(M4) If there is an occurrence of what-it-is-like-ness associated with M, S is in M.

Farrell then introduces *tight* and *loose* readings of WHAT (p. 2450), which, we recall, says that there is an occurrence of what-it-is-likeness associated with M. On the tight reading, if it is true that there is an occurrence of what-it-is-likeness associated with M, then it will be true that S is in M. On the loose reading, by contrast, there can be an occurrence of what-it-is-likeness without S’s being in M. The tight reading of WHAT thus makes (M4) true; the loose reading makes it false. And Farrell argues, rightly, that for the HOT theorist to reject (M4) they must adopt a loose

Farrell goes on to argue, however, that the HOT theorist is thereby caught between two arguments. On one side is the misrepresentation argument and on the other is what Farrell calls the ‘awareness argument’, which he formulates as follows:

(A1) If M is conscious, then there is something it is like for S to be in M.

(A2) If there is something it is like for S to be in M, then S is aware of M.

(A3) If M is conscious, then S is aware of M. (From (A1), (A2)) (2018, p, 2751).

The awareness argument aims to connect consciousness in the sense invoked by SOMETHING with consciousness as understood by HOT theory.

reading of WHAT, but he incorrectly sees this consequence as incompatible with the standard non-occurrent reading of SOMETHING (p. 2750-2751). The problem, as we have already observed, stems from Farrell’s failure to recognize that HOT theory is compatible with the ‘standard’ reading of SOMETHING. It is the case that the HOT theorists will reject (M4) since, as Farrell recognizes they will argue, there is an occurrence of what-it-is-likeness associated with M just in case there is an appropriate HOT representing S as being in M. Once we amend Farrell’s explanation, again by noting that it is when S is *consciously* in M that there is an occurrence of what-it is-likeness associated with M, this follows clearly from the loose reading of WHAT. That is, on the non-occurrent reading of SOMETHING, when S is consciously in M, there is an occurrence of what-it-is-likeness. And a natural explanation of why this is so is that there is a close connection between the what-it-is-likeness associated with *consciously* being in M and the relevant HOT that one is in M. This is because on HOT theory consciously being in M simply consists in S’s being aware of herself as being in M. There is thus only a problem with HOT theory’s account if one makes the EXPERIENTIAL-PROPERTY ASSUMPTION.

We note that A1 is the same as M2 in the misrepresentation argument and we have already agreed that the HOT theorists should accept this premise. Farrell argues that the crucial premise is A2, which depends on what he calls a *self-intimating* reading SOMETHING on which there being something that it is like for S to be in M entails that S is aware of M. But this reading does not fit well with the non-occurrent version of SOMETHING because, on that reading, there being something that it is like for S to be in M does not entail that there is an occurrence of what-it-is-likeness—and so does not entail that S is aware of M. Farrell thus concludes that to make A1/M2 true we need the standard non-occurrent reading of SOMETHING, but to make A2 true we need the non-standard occurrent reading. It would seem, then, that the HOT theorist is not engaging with the relevant notions of consciousness and has in effect changed the subject.

But as we have seen, the HOT theorist can accept the standard non-occurrent version of SOMETHING and thus reject the self-intimating conception of SOMETHING. So how should HOT theorists respond to Farrell's charge that they must equivocate in reply to the awareness argument? The answer is that the reply must be amended in the way suggested above. Recall that the HOT theorist can endorse the non-occurrent reading of SOMETHING by interpreting it to hold that when S is consciously in M, S undergoes the phenomenology associated with M, or that there is an occurrence of what-it-is-likeness associated with M. We can thus reformulate the awareness argument as follows:

(A1) If M is conscious, then there is something it is like for S to be in M.

(A2') If there is something it is like for S to be in M, then if S is consciously in M (i.e. if M is conscious) there is an occurrence of what-it-is-likeness associated with M.

(A3') If M is conscious then there is an occurrence of what-it-is-likeness associated with M (from (A1, (A2'))).

(A4') If there is an occurrence of what-it-is-likeness associated with M, then S is aware of M.

(A5') If M is conscious, then S is aware of M. (From (A3'), (A4')).

The question then becomes why we should accept (A4'). As we noted in section 3, we take this premise to be equivalent to the TP. Farrell argues that the HOT theorist cannot invoke this reading because it would be to beg the question. His point is that the awareness argument aims to establish that there is a connection between these notions and we cannot assume it at the outset. We think this claim can be supported by appeal to folk-psychological platitudes and empirical evidence, but that is a matter for another paper. Here we simply note that Farrell's arguments that the HOT theorist must change the topic and talk about a non-standard version of consciousness that is out of touch with what is at issue in mainstream discussion of consciousness fails. The HOT theorist is indeed in the business of trying to offer an explanation of the standard non-occurrent non-self-intimating notions of SOMETHING. One would think otherwise only if one were making the EXPERIENTIAL-PROPERTY ASSUMPTION.

We now turn to a related kind of objection, which urges that HOT theory cannot explain a specific kind of phenomenology.

5.2. *Gottlieb on presentational character*

While Farrell urges that HOT theory cannot account for what it's like for individuals, Gottlieb (2015) objects that it cannot explain what he the calls the specifically 'presentational character' of certain experiences. Although some theorists do posit this putative sort of phenomenology (e.g., Pautz 2007; Chudnoff 2012), the notion remains somewhat obscure. Gottlieb ultimately glosses it this way: "'presentational character' picks out that phenomenological quality, whatever

it is, that marks the difference between what it is like to be aware of an object O by having an occurrent thought about O and what it is like to be aware of an object O by having a visual experience of O (p. 110). And here is how he (pp. 110-111) presents his argument against HOT theory:

S1 If HOT [theory] is true, m^* (the HOT) entirely fixes the phenomenal character of experience.

S2 HOTs are thoughts.

S3 Presentational character is a type of phenomenal character.

S4 Thoughts *as such* do not have presentational character.

So:

S5 HOTs do not have presentational character. [S2, S4]

Thus:

S6 If HOTs do not have presentational character, then no experience (on HOT [theory]) has presentational character.

Gottlieb assumes that the proponent of HOT theory will quibble with (S4)—the claim that thoughts do not possess presentational character. And he suggests that HOT theorists pursue what he (pp. 106-107) calls the ‘HOT-Theoretic Gambit’: the strategy of trying to show that there is some candidate property of HOTs, call it ‘F’, that could explain why they have presentational character. But, he argues, there would seem to be no such property.

But we need not deny (S4).¹⁰ Rather, we can argue that Gottlieb's argument is invalid. On this approach, the error consists in the tacit assumption that it is the HOTs themselves that must exhibit the relevant property, *F*. And this is a way of making the EXPERIENTIAL-PROPERTY ASSUMPTION. The only reason for taking the thought itself to exhibit some kind of phenomenology would be that one is requiring that the state in virtue of which one has an experience exhibit the properties that the experience itself has. But according to HOT theory, it is *not* the (suitable) HOTs that have presentational character; *rather the presentational character belongs to the experiences that such HOTs engender*. That is to say, presentational character is part of the way the HOT describes one's mental life. Presentational character is part of what it is like for one and that is captured by the content of the HOT. Gottlieb's argument is invalid because, even if HOTs do not themselves have presentational character, they can and do generate experiences, and those experiences—what it is like for one, or the way in which the HOT describes one's mental life—have presentational character. One would expect the HOTs themselves to exhibit the relevant phenomenology only if one was assuming that there must be some existing state that has the property of being conscious.

Gottlieb (personal communication) replies that while his argument would seem to invoke the EXPERIENTIAL-PROPERTY ASSUMPTION, it can be reformulated so as not to assume it. He writes that (S4) could be replaced with the following: "S4*: Thoughts *as such* are not the kind of mental state such that, when one has them, one is aware of things (whatever the thought

¹⁰ We could deny (S4). Again, on Brown's HORROR interpretation of HOT theory, HOTs are identical with experiences. One might thus claim that HOTs themselves exhibit presentational phenomenology; we return to this possibility in Section 5.

represents) in the rich detailed way typical of visual consciousness.” This revised claim seems neither to assume that consciousness is a property of existing states, nor that it is the HOT that is the experience. But it is still a way of making the EXPERIENTIAL-PROPERTY ASSUMPTION. Gottlieb is assuming that the state in virtue of which one has an experience must have the properties of the experience.

Moreover, if Gottlieb’s argument were sound, it would prove far too much. For, how could one have an experience with *any* properties that HOTs need not have? For instance, how could one have a conscious thought *that p* if the HOT’s content is not *that p*, but *that I think that p*? That is to say, Gottlieb’s argument regarding presentational phenomenology would generalize to any property that experiences do not share with HOTs. We regard this as a *reductio* of Gottlieb’s position, not of HOT theory.

One might reasonably wonder, however, how could HOTs, which are ordinary thoughts, engender presentational phenomenology. Our reply here is simply that this is what HOTs are posited to do. If one agrees with the folk-psychological datum that thoughts in general can make us aware of things, then it would seem that HOTs can make us aware of our mental lives. And according to HOT theory, this is just what any phenomenology, presentational or otherwise, consists in.

Indeed, such a view is no more problematic than FO varieties of intentionalism which identify intentional states of various kinds, including ordinary beliefs, with perceptual states (see, e.g., Glüer 2009). As, for example, Pautz writes:

On Intentionalism, experiences are a type of intentional state akin to thoughts. Why then do experiences, including hallucinatory experiences, have a presentational phenomenology while thoughts do not?.... My answer to this question is that there is no

answer. Some intentional states (believing contents, desiring contents) do not have a presentational phenomenology. Other intentional states do have a presentational phenomenology.... To ask for an explanation of why this intentional state has a presentational phenomenology is to ask for an explanation of this identity; and in general identities do not need to be explained (2007, p. 519).

Of course, on Pautz's view, certain FO intentional states are experiences. On HOT theory, certain HO intentional states engender experience. But insofar as experience is a matter of mental appearance, it may be that such appearances are engendered by suitable HOTs, despite their being ordinary thoughts.

We do, however, think that it is natural to wonder what distinguishes HOTs that engender experiences with presentational phenomenology from those that do not. Rosenthal (e.g., 2005, pp. 208ff) is clear on this point: States such as perceptual and emotional states exhibit nonconceptual sensory features—what Rosenthal calls ‘mental qualities’—that correspond to, and thereby represent in a nonconceptual way, the sensible properties of objects. Intentional states such as thoughts, by contrast, exhibit a different kind of representational property—conceptual contents. Just as an apple may have the physical property of being red, a perceptual representation of that apple has the mental quality *mental red*. A thought about a red apple, by contrast, represents the apple's redness, by tokening the concept RED, not by exhibiting that sensory quality. The contents of HOTs are sensitive to this distinction and possess concepts sufficiently fine-grained enough to distinguish mental qualities. Some HOTs (conceptually) represent the subject as being in intentional states, while others (conceptually) represent the subject as being in sensory/perceptual states with mental qualities. The latter case is the one in which the experience will exhibit presentational phenomenology. And HOT theory accounts for

this difference. If a suitable HOT represents one as being in a state without mental qualities—say, a FO thought that apples are red—then one’s experience may exhibit cognitive phenomenology (see, e.g., Brown & Mandik 2012), but it will lack presentational phenomenology. Experiences thus have the presentational character that they do because HOTs *conceptualize nonconceptual contents* (see also, e.g., Berger & Brown forthcoming).

Gottlieb recognizes that a proponent of HOT theory might make a reply in this vicinity. But he does not think that this kind of proposal can work. He urges that it violates the constraint that “when a HOT has *F*, it cannot seem like it is a HOT (i.e. a type of thought) that has presentational character” (pp. 118-119), because in introspection, what we find are features of our HOTs, not features of FO states with presentational phenomenology. Gottlieb reasons that, if HOT theory were true, when one introspects, one’s third-order HOT would represent one as having a second-order HOT, rendering it conscious. But then it stands to reason that the presentational phenomenology that one is aware of must seem to belong to the HOT, which it cannot, and so HOT theory is false.

The issues here are a bit tricky, but the problem with Gottlieb’s argument is again the EXPERIENTIAL-PROPERTY ASSUMPTION. In effect, Gottlieb assumes that what becomes conscious—or bears the phenomenology—is the suitable HOT in virtue of which a state is conscious, not the resultant experience. But according to HOT theory, when one consciously sees an apple and then introspects, one’s second-order HOT becomes conscious. In addition to consciously seeing the apple (i.e. having the HOT), one consciously thinks that one sees an apple (i.e. having the third-order HOT). All that is added to the overall experience is the cognitive phenomenology of one’s second-order HOT. This is why the introspection of a perceptual experience subjectively feels as though one is aware of being aware of perceiving, it does not

feel as though there is added perceptual or presentational phenomenology. And this is also why we do not feel like we are consciously aware of (features of) a thought, much less of a HOT. What we are consciously aware of in introspection are features of our (apparent) FO states; in cases wherein we are aware of presentational phenomenology, we are consciously aware of it as features of perceptual (or other non-HOT) states.

5.3. *Picciuto on fineness of grain*

It is worth noting that, although he does not commit the EXPERIENTIAL-PROPERTY ASSUMPTION as straightforwardly, Picciuto (2017) does present an objection to HOT theory that is answered in a similar way as Gottlieb's objection. Picciuto urges that putatively suitable HOTs cannot successfully explain what it is often called the 'fineness of grain' ("FoG") of perceptual experience—FoG that occurs, for example, when one visually experiences many colors for which we do not possess individual color words. For familiar reasons, Picciuto observes that HOT theory must account for such FoG solely in terms of suitable HOTs, but he maintains that HOTs cannot explain FoG because, simply put, they are merely thoughts. After all, many theorists assume that concepts correspond at least roughly to one's lexical categories. The mere fact of FoG thus has led many philosophers of perception to posit that perceptual experience involves nonconceptual content (e.g., Peacocke 1992).

Picciuto is clear that his issue is not with conceptualism—the view that perceptual content is exhaustively conceptual (e.g., McDowell 1994)—but with the version of HOT theory defended here, on which ordinary thoughts give rise to finely grained perceptual experiences. In that way, Picciuto's worry echoes Gottlieb's, insofar as Gottlieb too worries how mere conceptual states could explain how one instantiates presentational phenomenology. But like

Gottlieb, Picciuto mistakenly assumes that, if individuals' perceptual experiences are explained in terms of suitable HOTs, those HOTs must exhibit the relevant properties of the experience. And, like Gottlieb, he is answered in the same way: HOTs represent perceptual states as exhibiting mental qualities and not mere conceptual contents.

HOTs can explain the fine-grained character of perceptual experience because, as Rosenthal has observed, while we may not possess lexical concepts for every mental quality, we do possess sufficiently many *comparative* concepts—concepts such as THE DARK SHADE OF MENTAL RED SLIGHTLY TO THE RIGHT OF THE MENTAL GREEN—to finely conceptualize one's mental qualities (e.g., 2005, pp. 188-189). Thus our perceptual experiences—the perceptual states that we are aware of ourselves as being in, or the conceptual contents of the relevant HOTs—may have very fine-grained character.

To be clear, while HOT theory does hold that one's perceptual experience is *determined* by a fully conceptual state—a HOT—it does not hold that one's experience—what it is like for one—is itself a wholly conceptual state. This point may sound odd, but remember that HOT theory holds that consciousness is simply being suitably aware of oneself as being in certain mental states. HOT theory in that way blurs the conceptualist/nonconceptualist distinction. It holds simultaneously that perceptual experiences are determined by conceptual HOTs, while maintaining that the experiences themselves are represented as having mental qualities, which are nonconceptual representations. To put this slightly differently, the theory holds that what it is like for one to consciously see red, for example, is completely determined by one's HOTs, while maintaining that the content of the HOT represents one as being in states that are nonconceptual. The HOT represents or conceptualizes one as being in a state that nonconceptually visually

represents red. Qualitative experience consists in conceptualizing oneself as being in states with nonconceptual content.

6. Conceptualizing the theory

We have claimed that experience consists in suitable HO awareness. But this seems to raise a natural question: What state or object then should we then call ‘conscious’? Notice, however, that this question runs the danger of smuggling in the EXPERIENTIAL-PROPERTY ASSUMPTION. But various HOT theorists have nonetheless provided some options that may help answer this question, which we now briefly review.

As noted previously, one way to sidestep the EXPERIENTIAL-PROPERTY ASSUMPTION altogether is to deny that states of any kind possess consciousness-making properties. If something must be conscious, we might follow Berger (2014) in holding that suitable HOTs render the *individual*, though not any state, phenomenally conscious. The individual experiences; in virtue of experiencing—in virtue of having a suitable HOT—the individual is conscious. On this view, HOT theory remains a theory of state consciousness, but it holds that individuals are state conscious insofar as they are suitably aware of being in states.

But if one wishes to describe states as conscious, then one could hold that, when there is experience, a mental state is conscious insofar as it features in the content of the appropriate HOT. In that way, we might say that the experience is the descriptive *content* of the HOT. When one is suitably aware of seeing red, one experiences seeing red. Thus, as Rosenthal (e.g., 2005, p. 211) and Weisberg (e.g., 2011a, pp. 418-419) have suggested, it is these apparent or *notional* states—the states that HOTs represent there as being—that can be said to bear properties such as phenomenal character. On this view, then, we can shift easily between describing phenomenal

states of individuals and phenomenally conscious mental states. Such a view, however, still rejects a crucial aspect of the EXPERIENTIAL-PROPERTY ASSUMPTION, which requires that the states that exhibit the consciousness-making property exist. And some might thereby balk at this suggestion, urging that it is impossible that nonexistent things bear properties such as consciousness (e.g., Wilberg 2010; for discussion, see Berger 2014). But we have been at pains to demonstrate that such a view is not problematic, properly understood.

If one is wedded to the assumption that consciousness-making properties must attach to actually existing states, then one could embrace EXPERIENTIAL-PROPERTY ASSUMPTION, but deny that that consciousness need attach to *FO* states. One could thus follow Brown (2015), who proposes that it is the suitable HOTs themselves that are conscious. After all, such suitable HOTs are themselves necessary and sufficient for consciousness. Brown thus argues that we can cast HOT theory as a HO version of intentionalism: what he calls the ‘higher-order representation of representation’ (“HOROR”) theory. On the HOROR theory, since the HOT is the state in virtue of which there is something that it is like for one, the suitable HOT is itself the experience that is phenomenally conscious—and the phenomenal properties are identified with the representational contents of the HOT.

Since HOTs are not typically states that we are aware of being in, on this view one must maintain that they are seldom *state* conscious, thereby divorcing state consciousness from phenomenal consciousness. One can be in a phenomenally conscious state—a suitable HOT—without being in an actually existing state-conscious state. But the view nonetheless respects the datum, codified by the TP, that one has an experience only if one is aware of having a certain mental life.

Though Berger (2014) and Brown's (2015) readings of HOT theory may seem like departures from Rosenthal's view, we regard all three views as effectively interchangeable, preferable depending only on how one wishes to use 'consciousness'.

7. Conclusions

We acknowledge that we have not really argued *for* this version of HOT theory. Our goal has simply been to show that sophisticated objections to the view founder insofar as they make what we have called the 'EXPERIENTIAL-PROPERTY ASSUMPTION', which is itself questionable. It is open to regard experience as simply identical with certain instances of suitable HO awareness. Since this alternative way of thinking of consciousness is at least on the table, these objections fall short and HOT theory remains a contender for a promising analysis of consciousness.¹¹

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