Introduction

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David Rosenthal was educated at the University of Chicago and Princeton University, writing his dissertation under Richard Rorty on the Sellars–Chisholm correspondence on intentionality. He has spent most of his career at the Graduate Center of the City University of New York, where he holds appointments as professor of philosophy, linguistics, and cognitive neuroscience. He is also the coordinator of the Interdisciplinary Concentration in Cognitive Science at the Graduate Center, as well as the organizer of the long-running speaker series in cognitive science. He is best known for his work on consciousness and sensory quality, but has published on a range of topics in philosophy. He is author of over a hundred articles and a volume of collected papers, is editor of four books, and is a past president of the Association for the Scientific Study of Consciousness.

According to a famous passage of Thomas Nagel, “Consciousness is what makes the mind-body problem really intractable” (1974: 435). Nagel’s pessimistic dictum is widely accepted in contemporary philosophy of mind: It’s agreed that there is a serious, perhaps unsolvable, problem here, one demanding radical philosophical responses. The central insight of Rosenthal’s work is that this seeming truism – that consciousness creates explanatory gaps and hard problems – rests on an error, the error of mistaking a claim of philosophical theory for what is pretheoretically given about consciousness. Rosenthal scrutinizes our commonsense conception of consciousness to rightly fix the data a theory must explain, arguing that nothing in consciousness so clarified supports Nagel’s explanatory pessimism. Rather, that pessimism is underwritten by the often-implicit theoretical claim that consciousness is an intrinsic, inextricable feature of mental states, so that the possibility of an informative explanation is blocked at the outset. Rosenthal forcefully rejects this dogma. In its place he defends a commonsense characterization of the conscious mind allowing for fruitful explanatory theories of consciousness and sensory quality. And with this in hand, he develops and defends the higher-order thought
theory (HOT theory) of mental-state consciousness and the quality-space theory of sensory quality. Both are important contributions to our understanding of mentality and consciousness.

A central problem facing any attempt to explain consciousness – or anything else – is the challenge of appropriately pinning down what must be explained. Nagelian pessimism seems to rule out the possibility of explanation at the start. But shoe-horning the definition of consciousness to fit this or that empirical theory also fails to illuminate. Rosenthal’s approach is to stay within the commonsense framework of our “manifest image,” thereby avoiding illicit empirical redefinition, while showing that the door remains open to a satisfying explanation. Fundamental to Rosenthal’s thinking is that consciousness is not intrinsic or essential to any mental state; rather, all mental states can occur nonconsciously. This is a well-supported claim of folk psychology and empirical science: It is not contradictory or meaningless to speak of unconscious perceptions or emotions or pains, and they feature widely in psychological and neuroscientific theory.

From this perspective, the key question is how commonsense differentiates between conscious and nonconscious states. Rosenthal argues that this commonsense difference is best characterized as a matter of mental states the subject is aware of being in. If a subject is in no way aware of themselves as being in a mental state, that state is not intuitively a conscious state. This idea is labeled by Rosenthal as the “transitivity principle,” usually given in its contrapositive form: A conscious state is one the subject is in some way aware of themselves as being in. Reflection on folk-psychological usage and ordinary behavior support this principle. The central question for the study of consciousness is therefore to explain how this awareness works in us. There is nothing at the outset inherently mysterious or intractable here. This puts the pressure on proponents of the Nagelian approach to justify why we should embrace an initial characterization of the data hobbling explanatory progress at the get-go. Folk psychology does not license this pessimism; its source is plausibly in the theoretical commitments of philosophers.

With our explanatory starting point properly oriented, the space opens for fruitful focus on the nature of qualitative consciousness, the conscious experiences of blue, or of Bach, or of having a piano dropped on your foot. As important as Rosenthal’s initial framing of the data is his work to spell out the next steps in productive research. The transitivity principle allows for an explanatory division between the awareness we have of our conscious states and the states (and their qualitative properties) we are thereby aware of. Furthermore, the principle reveals a crucial appearance-reality
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gap in experience itself. There is the way we are conscious of our conscious states – how they seem to us in subjective experience. And there is the way those states are independently of our consciousness of them. Thus we can theorize about sensory qualities independently of consciousness, and what’s more, how such qualities are presented to us in experience need not reveal their full underlying nature. And we might even find a way to explain why consciousness seems more mysterious than it ultimately is: We are mistaking the limited first-person access we have to our conscious states for a seemingly infallible revelation of all there is to experience.

Rosenthal is most widely known for his approach to the awareness side of this theoretical divide: the HOT theory of mental state consciousness. The theory explains the awareness we have of our conscious mental states, thereby showing how the phenomenon picked out by the transitivity principle is realized in us. The HOT theory holds that a mental state is conscious when we’re aware of ourselves as being in it by having the right sort of intentional state about it. Rosenthal argues that our ordinary understanding of being aware of something provides two candidates for this awareness: perception and thought. Since perception is marked by the presence of distinctive sensory qualities and there are no such qualities present in conscious awareness beyond those associated with first-order qualities like colors, smells, and tastes, the right model for our awareness of our conscious states is thought. Thought makes us aware of things without employing any proprietary sensory quality; therefore, thoughts plausibly make us aware of our conscious states. Since these thoughts have other mental states as their representational targets, they are labeled “higher-order thoughts.”

Rosenthal further refines the theory, as not all forms of higher-order awareness intuitively result in conscious mental states. In particular, if we become aware of our states based on conscious observation or inference, those states will not intuitively be conscious states. So the higher-order thought must not be based on observation or inference the subject is aware of. Further, I may become aware of your thoughts or feelings by thinking about them, and this does not plausibly make them conscious states. Therefore, higher-order thoughts must be appropriately about one’s own mental states. Finally, since doubting or wondering if one is in a mental state is not enough to make those states conscious, the awareness must have an assertoric attitude: They must assert that the state is present in the subject. This results in the central claim of the HOT theory: Conscious states are states the subject is aware of themselves as being in by way of a nonsensory, seemingly noninferential, assertoric representation.
Note that this proposal is still broadly couched in the language of commonsense. The claim is not that some sui generis, mysterious mode of awareness makes us aware of our conscious states. It is a proposal capturing what it is for a mental state to be conscious in ordinary terms, but it is one that shows that there is nothing in our everyday understanding of consciousness generating the sort of Nagelian doubt driving much contemporary research on consciousness. The theory at this stage is empirically beholden to our folk-theoretic understanding of the conscious mind — it can be challenged on that basis. But it also presents a proposal about what we should look for in the psychology and neuroscience of consciousness: a mechanism realizing higher-order thoughts. The HOT theory thus provides the link between ordinary understanding of consciousness and a scientific theory of consciousness, a link retaining a robust, everyday notion of conscious mental states while guiding empirical research toward a tractable understanding of the phenomenon.

The other side of Rosenthal’s explanatory divide is equally fruitful. If consciousness is a matter of awareness of ourselves as being in mental states, such states can also exist independently of our awareness of them. This opens up the possibility of a theory of sensory mental quality free from the allegedly privileged inner eye of first-person access. Rosenthal completes his divided picture of qualitative consciousness with his quality-space theory of sensory quality, an approach rooted in our perceptual discriminatory abilities. In perception, we can sort what we perceive into more or less similar groupings along a range of dimensions. Red is more similar to purple than to green. The sound of a trumpet is more similar to the sound of a trombone than it is to the sound of a timpani. And so on. These sorting patterns are detectable independently of consciousness. They allow us to uncover an internal “quality space” mirroring the similarities and differences we can detect in the world. The properties underwriting the states active in this discrimination process are sensory qualities — they are the properties marking our distinctively sensory way of detecting the world. And they are fully characterizable without mention of consciousness because they are individuated by their perceptual role. However, we can be conscious of ourselves (by way of higher-order thought) as being in states with such properties. And so we gain an account of qualitative consciousness, the very thing appearing so deeply inexplicable to many philosophers. Of course, there are challenges to fully cash out this theoretical picture. But there is nothing as of yet falling outside the ordinary “easy problem” purview of science: We have the representational and causal elements of a broadly conceived functionalist story.
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But what of the seemingly ineffable elements of conscious experience, the “what it’s like-ness” of seeing red or hearing a trumpet? Here, Rosenthal’s key insight that the underlying nature of our mental states may not be as it appears in consciousness provides an answer. Our apparent lack of access in conscious experience to the relational and functional connections actually present in sensory states can mislead us into thinking they are somehow nonrelational and intrinsically illuminated. Further, when combined with Cartesian ideas often implicit in contemporary thinking about the mind, one might think that all there is to conscious states is the appearance they reveal to first-person access. But, Rosenthal argues, this claim is licensed neither by commonsense nor by empirical evidence. It is an error of philosophical theory, difficult to defend once it’s exposed by Rosenthal’s arguments.

We are left with a commonsense picture of the mind, but one clarified and regimented to reveal a structure amenable to scientific explanation. We have a folk-psychological characterization of the crucial difference between conscious and nonconscious mental states and the development of theories of consciousness and sensation rooted in ordinary terms while indicating the plausible direction of empirical investigation. Further, the presence of an appearance-reality gap in consciousness itself helps to explain away the intuitions driving the “mysterian” stipulations at work in the study of consciousness today. It is a remarkably fruitful conception of the problem space, occupying a sweet spot between allegedly intractable hard problems and the temptation of over-hasty reduction. This collection is testament to that fruitfulness, bringing together leading philosophers and scientists to challenge, refine, and extend Rosenthal’s vision.
CHAPTER 1

Cognitive Phenomenology
Accessibility vs. Acquaintance

Joseph Levine*

1.1

When I have a visual, auditory, or other perceptual experience, or when I experience certain bodily sensations, such as pain or an itch, there is clearly something it is like for me. That there is anything it is like for me I will call the “subjectivity” of the state. It is a state a subject experiences, and experience involves some kind of awareness, or consciousness. Specifically what it is like for me to see or hear something, or experience a pain or an itch, I’ll call the phenomenal character of the state. Phenomenal consciousness, then, involves two crucial components, both of which are reflected in the standard, Nagelian phrase “what it is like for the subject”: subjectivity, indicated by the prepositional phrase “for the subject,” and phenomenal character, indicated by the nominal phrase “what it is like.”

Any theory of consciousness must say something about both of these elements, but some theories concentrate more on one than on the other. So, for instance, higher-order theories, such as Rosenthal’s “higher-order thought” (Rosenthal 1997) or Lycan’s “higher-order perception” (Lycan 1996), primarily address subjectivity. On their view, conscious mental states are those we are conscious of, and this in turn means that we mentally represent these states with higher-order states. Nonetheless, both Rosenthal and Lycan have something to say about what qualitative character is, though it isn’t determined by their theory of subjectivity.

* I want to thank my colleagues in the Department of Philosophy at the University of Massachusetts Amherst for their comments and suggestions when an earlier version of this chapter was presented to our brown bag series on March 6, 2020.

1 By linking these two components to the two phrases as I have, I definitely do not intend to base my claim about their existence on the semantics of the phrases. If anything, it’s just the other way around. Experience itself provides us the evidence of the existence of subjectivity and phenomenal character, and therefore the standard way of capturing the phenomenon of conscious experience reflects this. The point is, no grammatical analysis of the phrase “what it is like for the subject” that eschews reference to these two components is sufficient, to my mind, to undermine our reasons for thinking they exist.
On the other hand, first-order representationalist theories are primarily theories of phenomenal character. According to the standard, externalist version of representationalism, championed by Byrne (2001), Dretske (1995), Harman (1990), and Tye (1995), the phenomenal character of an experience is identical to (or constituted by) the representational content of the relevant mental state. For example, the color phenomenal character of my visual experience of a ripe tomato is given by the feature of the tomato – a surface spectral reflectance, to a first approximation – that is represented by my perceptual system. But, of course, not every representation of that surface spectral reflectance is a conscious experience of it, so other conditions must be added to ensure that the representational state in question constitutes a genuine perceptual experience.

For some time now a debate has raged concerning the nature of conscious thought, or, more generally, conscious cognition. When I consciously deliberate, judge, or just entertain thoughts, is there something it is like to experience these mental states? Some philosophers claim that conscious thoughts have a phenomenal character just like conscious sensory experiences, while others deny this. I have already weighed in once on this controversy (Levine 2011), but I want to plunge in again and try to bring a different perspective to bear on the debate.

Let’s call the doctrine that there is a special, proprietary phenomenology for cognitive states “CP.” CP has been formulated in various ways by its adherents, but I will use this version by David Pitt. Here is how he puts it:

In this section, I shall argue that what it is like consciously to think a particular thought is (1) different from what it is like to be in any other sort of conscious mental state (i.e., proprietary) and (2) different from what it is like consciously to think any other thought (i.e., distinctive). That is, any conscious token of a thought-type T has a unique phenomenology different from that of any other sort of conscious mental state, and different from that of any other conscious thought. (Pitt 2004, p. 4)

As far as I can tell there are two principal arguments for CP. The first is Pitt’s argument to the effect that without appeal to CP there is no good account of how we possess the kind of first-person knowledge of our thoughts – in particular, their contents – that we clearly do. I addressed that argument in Levine (2011), objecting that it only worked if we built the doctrine of CP itself into the conception of the kind of first-person knowledge that we have of our thoughts, so the argument is question-begging.

The second form of argument is often called, after Susanna Siegel (2006), the “phenomenal contrast” argument. The idea is to isolate two mental
states that apparently differ only in their cognitive contents – leaving all sensory content the same – and noting that there is a difference in phenomenal character. Given the presumed identity of sensory content between the two states, the phenomenal difference can only be accounted for by appealing to the difference in cognitive contents, and so therefore CP must hold.

A typical exchange in the context of this argument goes like this:

**Pro-CP:** When I consciously entertain a thought I would express with “It’s sunny finally, so I should take advantage and go out for a walk,” there is clearly something it is like for me to think this thought and form this intention.

**Anti-CP:** Yes, of course there is, but what it is like is completely exhausted by the associated sensory phenomenology, in particular, the auditory imagery associated with one’s “inner speech.”

**Pro-CP:** To isolate the peculiarly cognitive contribution to the phenomenal character, imagine two cases: Case 1 involves someone hearing a sound stream in a foreign language she doesn’t understand, while Case 2 involves hearing the very same sound stream but understanding it. It seems clear that Case 2 involves more in what it’s like than the mere awareness of the various sounds, and that something more is a matter of the content that is grasped when understanding takes place.

**Anti-CP:** Actually, despite the identity of the sound streams in Cases 1 and 2, there is still a sensory difference between the two. First, due to the contribution of one’s language processing, the very character of the sound will be different in the experience of the two listeners despite their identical stimuli. An understander will hear pauses and prosodic features that a nonunderstander won’t hear. Also, when one understands what’s heard there will likely be associated visual and other sensory imagery related to the content that won’t occur with the nonunderstander.

At this point the debate largely reduces to a clash of intuitions; some find this elusive cognitive phenomenal character, and others only find what’s restricted to what Tye and Wright (2011), following Lormand (1996), call the “Quartet” of phenomenological states: perceptual experiences, bodily sensations, visual, auditory, and other sensory imagery, and linguistic imagery (“inner speech”). In what follows I will refer to the members of the Quartet as “sensory features.”

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1 Tye and Wright add emotional phenomenology to the mix of recognized types of phenomenal character, making it a “quintet.” I will ignore emotional states in what follows.
One extremely puzzling feature of the debate over CP is that there is a clash of intuitions at all. Consider the history of the debate about conscious experience as it developed over the last half of the twentieth century. From Smart’s (1959) concern about a “yellowy-orange after-image” through my own (Levine 2001) discussion of the reddish character of visual experiences of my red diskette case (remember those?), the qualia debate focused on sensory-perceptual features like color, sound, and bodily sensation. Not coincidentally, these features are just the ones that exercised early modern philosophers when speaking of “secondary qualities.” Their task was to banish such qualities from the material world, relegating them to the interior of conscious experience. Once corralled within the mind, it was then up to materialist philosophers of mind to find a way to reduce them to the remaining nonqualitative features that had been left to the material world.

As I said, for a long time that’s where the debate stayed. Everyone knew what anti-materielist philosophers were talking about when they referred to qualia – even eliminativists knew what was intended and could identify them in their own experience. Their claim that qualia don’t really exist was understood to be very counterintuitive – even to themselves – and was based on the idea that we somehow suffered from a kind of cognitive illusion in believing in them. But they understood the illusion and had no doubt of its presence in experience.

Contrast that situation with the debate over CP. The debate begins with a basic clash of intuitions: CP advocates claim to experience it clear as day, while CP opponents claim not to find such features in their experience. Of course, the debate develops further, with various thought experiments trotted out by both sides, as described above, along with replies that try to show that the examples don’t have the force they were thought to. But what’s still puzzling to me is that first, initial clash of intuitions. Why is this an issue with CP but not with the traditional problem of qualia?

One common response on the part of CP advocates is to say that the phenomenology of thought is quite subtle, so those who fail to find it in their own experience are just not looking hard enough. I think there is probably something to this, but it just raises the question of why cognitive states should contribute in this subtle manner to phenomenal character

1 Indeed, on the T-shirt that commemorates the NEH Summer Institute on Consciousness held at University of California – Santa Cruz in 2002, there is a list of (allegedly) humorous slogans used by various philosophers. One of them, attributed to CP advocates, is “Look harder!”
in contrast with sensory states. It would be nice to have a deeper explanation, one that engages with a theory of what phenomenal character, and conscious experience more generally, really is.

That is what I want to do in this chapter. From my perspective, too much of the debate over CP has been conducted with the idea that one puts forward one’s position and arguments in a way that stays as neutral as possible among the various theories of consciousness that have been proposed over the decades – in particular, neutral between materialist and anti-materialist, or reductionist and nonreductionist, theories. I can see the advantage of not engaging these large issues when focusing on this one doctrine, but to my mind this attitude has only muddied the waters and led philosophers to talk past each other.

Therefore, I want to begin my discussion by looking at a couple of representative materialist/reductionist theories of conscious experience – representationalism and higher-order theory, mentioned above – and one nonreductionist theory that I am very sympathetic to. I will argue that the way the CP debate plays out on the reductionist theories is very different from the way it plays out on the nonreductionist one. In particular, I will argue that, when one looks closely at what conscious experience really amounts to on the most popular reductionist theories, it turns out there is not much to really argue about. On the other hand, on the nonreductionist theory, the question of CP strikes at the core of what conscious experience is. Furthermore, on this theory, it also makes sense why there should be such discontinuity between the intuitive consensus over sensory qualia and the clash of intuitions regarding cognitive phenomenal character.

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By a “reductive theory” of consciousness I don’t just mean one that includes a commitment to physicalism. As I see it, there are theories that might justifiably consider themselves physicalist without being reductive in my sense. So, for instance, a commitment to supervenience of the mental on the physical might be sufficient to count as physicalist, but a commitment to supervenience alone doesn’t constitute a reductive theory of the mental.

Rather, what I mean by a reductive theory is captured by Jerry Fodor’s (1987) famous quip about intentionality: If intentionality is real, he argued, then it must be “really something else.” Any theory that provides an account of conditions that are constitutive of conscious experience in terms that do not advert to consciousness itself is reductive in my sense. Hence the traditional identity theory, traditional functionalism,