

## BOOK REVIEWS

**Consciousness, Color, and Content**, by Michael Tye. The MIT Press: Cambridge, Mass., 2000, 198 pp.

As Michael Tye himself admits in the preface, *Consciousness, Color, and Content* covers much of the same ground as his previous book, *Ten Problems of Consciousness* (The MIT Press: Cambridge, Mass., 1995). In particular, he resumes his description and defense of representationalism, a theory of consciousness according to which phenomenal content is identified with intentional content of a certain sort. On Tye's view, there are three requirements that must be satisfied in order for intentional content to be classified as phenomenal content. (i) The content must be *nonconceptual*. The need for this requirement stems from the relative limitations of our conceptual repertoire in comparison with our phenomenal repertoire. When choosing paint for your walls, you might be presented with samples in 30 different shades of off-white, and though you might have concepts for some of these distinct shades—ecru and beige, perhaps—your phenomenal discriminations when experiencing these shades will far outrun the concepts you have. The same point holds for other visual features such as shape—I can experience the shape of a cloud even if I have no corresponding concept for that shape—and for perceptible features in other sensory modalities. (ii) The content must be *abstract*, representing general (and not particular) features of objects. This requirement allows Tye to account for the phenomenal content of hallucinations and other visual illusions in which no actual objects are represented. (iii) The content must be appropriately *poised* for entry into belief- and desire-forming systems: "The key idea is that experiences and feelings, *qua* bearers of phenomenal character, play a certain distinctive functional role. They arise at the interface of the nonconceptual and conceptual domains, and they stand ready and available to make a direct impact on beliefs and/or desires" (p. 62). Given these three requirements, Tye summarizes his representationalism with the acronym 'PANIC,' identifying phenomenal content with poised, abstract, nonconceptual intentional content.

Despite minor revisions, the PANIC theory of *Consciousness, Color, and Content* remains essentially unchanged from its earlier presentation. What has changed, however, is the manner in which it is motivated. Tye 1995 was organized around the titular ten problems related to phenomenal conscious-

ness, with the PANIC theory offered in response. But while the book ultimately proposed solutions to all ten of the problems, not all of these proposals related directly to the PANIC theory. The theory thus ended up taking a backseat to the problems in a way that at times obscured the motivations for it. Happily, several aspects of *Consciousness, Color, and Content* help to rectify this deficiency.

The opening part of the book, bringing together two previously published articles (the first in *Protosociologie* and the second in *Mind*), focuses on two well-known challenges to physicalism: the knowledge argument and the explanatory gap. Although these challenges were addressed in Tye 1995 (as “the problem of perspectival subjectivity” and “the problem of mechanism”), the treatment here is both more focused and more effective. According to Tye, each of these apparent threats to physicalism can be dispelled if we attend more closely to the nature of phenomenal concepts.

Frank Jackson’s knowledge argument against physicalism proceeds by way of the Mary case. Mary, who is locked in a black-and-white room, has never experienced any color sensations. While in the room, she studies the science of color by way of black-and-white books and television lectures and learns all the physical facts about color and color vision. Nonetheless, when she finally exits the room and sees a ripe tomato, experiencing the color red for the first time, it seems undeniable that she learns something new about that color. From this, it is generally concluded that the physical facts about color must be incomplete and thus that physicalism is false. Physicalists have employed various strategies in response to the knowledge argument, but perhaps none is as prominent as the Ability Hypothesis, developed independently by both David Lewis and Laurence Nemirow. According to this hypothesis, although Mary does gain knowledge when she has the experience of red for the first time, she does not gain *factual* knowledge. Her newfound knowledge consists in knowledge-*how* rather than knowledge-*that*, with the know-how analyzed in terms of imaginative, recognitional, and memory abilities. Tye, however, rejects this hypothesis. Since Mary (like any of us) cannot discriminate the redness of the tomato she has just seen from any number of slightly different shades of redness, Tye claims that she cannot accurately remember or imagine it, nor will she be able to accurately recognize it when she sees it again. Thus, the Ability Hypothesis must be false; Mary lacks the relevant abilities even though, as she stares at the tomato, she certainly has knowledge of what that determinate shade of red is like.

This is not to deny that Mary gains various abilities when she sees a tomato for the first time; Tye grants, for example, that she gains the basic ability to cognize her experience while she is undergoing it. Nonetheless, he denies that her knowledge of what red is like consists in any such abilities. Rather, he suggests that her knowledge consists in her acquisition of a new

concept of red—in particular, a *phenomenal* concept. Her acquisition of this new concept, however, need not threaten physicalism. Since there exist conceptual differences even between concepts that are analytically equivalent, such differences “need not be mirrored in worldly differences” (p. 17). Tye’s proposal thus resembles that of other physicalists who have attempted to argue that, while Mary gains knowledge when she sees a tomato for the first time, and while that knowledge is factual, the knowledge does not consist of any *new* fact. Rather, Mary simply comes to reapprehend an old fact under a different guise. In this case, the different guise comes from Mary’s newly acquired phenomenal concept.

Tye’s discussion of the knowledge argument nicely feeds into his discussion of the explanatory gap where he again invokes phenomenal concepts in defense of physicalism. He suggests that we mistakenly believe that physicalism leaves us without an adequate explanation for phenomenal consciousness because of our insufficient appreciation of the *a priori* irreducibility of phenomenal concepts. Once we understand the special nature of the irreducibility of phenomenal concepts—importantly disanalogous from both indexical concepts and natural kind concepts—we can come to realize that the alleged explanatory gap is merely a cognitive illusion. Notice, however, that since this suggestion hinges on a claim of irreducibility, the reductive physicalist may well be wary of adopting it. Granted, the irreducibility is at the level of concepts—as Tye puts it, at the level of sense and not of reference, but we might plausibly demand further explanation of why we would develop these sorts of irreducible concepts given the purported truth of reductionism.

Importantly, nothing in Tye’s theory of phenomenal concepts presupposes the truth of the PANIC theory. In fact, his discussion in these first two chapters—his response to the knowledge argument and his answer to the charge that physicalism involves an explanatory gap—does not even presuppose representationalism. Thus, it is useful that he brackets off these matters in the opening part of the book, rather than addressing them in the context of the presentation of the PANIC theory as he did in Tye 1995.

Having explained how he thinks we can dismiss these two traditional threats to physicalism, Tye turns in the second part of the book to an explanation and defense of his particular brand of physicalism: representationalism. He begins with a discussion of the “transparency intuition.” As famously noted by G.E. Moore, our experience seems to us to be diaphanous. Upon staring at a ripe tomato, for example, were you to reflect introspectively on your experience, you would be able to focus on the redness of your experience only by focusing on the redness of the tomato. Although the transparency intuition serves as a principal motivation for the representationalist view, Tye worries that it has not been sufficiently understood (p. 45). He thus devotes considerable care to outlining how the representationalist makes use of it. Readers will no doubt appreciate this step-by-step presentation, a

marked improvement over his previous treatment of transparency as a problem with which a theory of phenomenal consciousness must grapple. Given that the non-representationalist will often reject the claim that there is any feature of experiential transparency for which we must account, the presentation in Tye 1995 had struck me as unnecessarily contentious.

Following his summary of representationalism and its motivations, Tye devotes several chapters to countering some alleged problems for representationalism. Two of these chapters respond to numerous examples that seem to threaten the claim that perceptual experiences with identical representational contents must have identical phenomenal contents, with the first devoted to real-life examples (e.g., blurry images, phosphenes, and double vision) and the second devoted to hypothetical ones (e.g., the inverted spectrum). In the third of these chapters, Tye confronts the Swampman and Inverted Earth scenarios, two common thought experiments that together present the representationalist with a dilemma. Inverted Earth, originally proposed by Ned Block, purports to present a case where there is a change in the representational content of an experience without a corresponding change in phenomenal content. On Inverted Earth, every object has the complementary color to that which its counterpart has on earth. For example, the sky is yellow, grass is red, bananas are blue, and ripe tomatoes are green. Thus, when an Inverted Earthling looks at the sky, her perceptual state represents the sky as yellow. However, since the language on Inverted Earth is also inverted with respect to the language on Earth, Inverted Earthlings refer to the sky as blue and grass as green, just as we do. Now suppose that an Earthling is kidnapped, color-inverting lenses are inserted in her eyes, and she is transported to Inverted Earth. Importantly, all of this occurs without her knowledge. Because of the inverting lenses, we can plausibly suppose that her experiences on Inverted Earth would not seem different to her from those on Earth. Over time, however, once she becomes sufficiently embedded in the linguistic and physical community of Inverted Earth, the representational contents of her perceptual states will adapt, so that such states will represent the sky as yellow and the grass as red. Given this case where states with differing representational contents are phenomenally identical, representationalism (or at least externalist representationalism) must be false.

One plausible line of response for the representationalist involves the invocation of a teleological account of tracking: "If what an experience normally tracks is what nature designed it to track ... then shifting environments from Earth to Inverted Earth will make no difference to normal tracking and hence no difference to the representational contents of your experiences." (p. 119) But this response, however well it deals with the case of Inverted Earth, seems to require the representationalist to deny phenomenal consciousness to Swampman, a molecule-for-molecule replica of a sentient being formed by cosmic accident when a bolt of lightning hits a log in a swamp. If phenomenal content is identified with a certain sort of teleo-representational content, then since Swampman's inner states do not play any teleological role (having been formed accidentally, he has no designed

states whatsoever), the representationalist who adopts this notion of tracking would be forced to deny that Swampman has any experiences. Tye thus advances a causal covariation of representational content that cleverly allows him to deal with both thought experiments. On this account, what it means for a sensory state *S* of a creature *c* to represent *P* is as follows: "If optimal conditions were to obtain, *S* would be tokened in *c* if and only if *P* were the case; moreover in these circumstances, *S* would be tokened in *c* because *P* is the case." (p. 136) Since Swampman's states can clearly satisfy this condition, Tye is not forced to deny phenomenal experiences to it. With respect to the Inverted Earth scenario, Tye argues that, given the insertion of inverting lenses in the earthling prior to her transport, conditions are not optimal. Nonetheless, no matter how many years have gone by, and how well the earthling has adapted to the Inverted Earth community, it will still be (counterfactually) true of her that if conditions had been optimal, her sensory state when looking at the sky would have been causally correlated with blue things. Thus, Tye can claim that her experience, even after her adaptation into the Inverted Earth community, represents blue and not yellow. As should be clear, the plausibility of this response depends on the plausibility of the causal covariation account of representation. Questions may be raised about whether causal covariation—even given the restrictions that Tye goes on to place on it—will be strong enough to account adequately for representation.

The final part of the book takes up two topics related to representationalism. After a chapter in which Tye defends an objectivist view of color, he turns in the last chapter of the book to the question of where on the phylogenetic scale phenomenal consciousness ceases. Given his representationalist theory, this amounts to the question of which creatures are capable of states with PANIC. After surveying scientific evidence for indication of behavior more sophisticated than mere stimulus-response, Tye claims that paramecia and caterpillars do not have states with PANIC while fish and honeybees do. More interesting than his assessment of this behavioral evidence, however, is his distinction between merely having phenomenally conscious states and being aware of such phenomenally conscious states. Since he does not believe that creatures such as honey bees and fish can introspect their phenomenally conscious states, Tye suggests that although they can feel pain, they cannot *suffer*. Suffering, he claims, requires taking notice of one's state. His brief remarks in this chapter, however, do not seem to me to do justice to the complexity of this issue. Moreover, some of the discussion may offer vindication for fellow representationalists who offer higher-order thought theories.

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