

Consciousness in Action: Clarifications

Response to Kinsbourne and Kobes

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Philosophy of neuroscience may seem an odd thing to do. What can a philosopher add to what neuroscience itself has to say, other than at some very abstract level, far removed from empirical details and the interests of scientists? At some point you take a deep breath, acknowledge the methodological questions, and just go ahead, spurred on by the sheer philosophical interest and excitement abroad in the neurosciences today. So it is very gratifying to a philosopher of neuroscience for such a distinguished neuropsychologist as Marcel Kinsbourne to find added value in the result.

As Kinsbourne indicates, the cognitive neurosciences are these days going through a period of intense and interdisciplinary theoretical development, which extends to philosophy. Scientists are themselves noting and addressing the philosophical issues their work raises and making philosophical arguments, which they are often eager to discuss with empirically informed philosophers. And more and more philosophers are finding that it is philosophically well worth the trouble to read up the science, and that the philosophical issues about the mind that scientific practice itself throws up are as engaging as traditional philosophical preoccupations and formulations. In this fruitful foment, empirical and conceptual issues are densely--indeed, inextricably--interwoven.

Kinsbourne's prequel to my view of perception and action highlights various themes and cautions with which I am much in sympathy, such as the ways in which language may be continuous with other sensorimotor functions, and the importance that imitation now appears to have in structuring human abilities. In particular, his illuminating discussion shows that care is needed in formulating the conditions--phylogenetic, ontogenetic, functional--under which enactive coding emerges. In ridding ourselves of old preconceptions, we should avoid going uncritically to the opposite extreme.

Bernard Kobes' thoughtful and insightful review focuses on issues about the unity of consciousness and about externalism. My brief responses here do not do full justice to Kobes' rich and challenging discussion, but I hope they help to make my position clearer and to lessen the distance between our views.

I will begin with issues about externalism. Kobes describes the book as mounting a sustained attack on the use of Twin Earth thought experiments in debates over externalism. This is not what I took myself to be doing! Rather, I took myself to

be proposing a different way of attacking the same traditional view of the mind that content externalists attack. My views are actually very close to the bi-level externalism Kobes favors. I don't reject Twin Earth thought experiments outright, and am largely in sympathy with content externalism. But I want also to consider a more radical form of externalism, vehicle externalism, which can be made invisible by the usual presuppositions of Twin Earth arguments. I may have been guilty of polemical overcompensation at one or two points, but my argument is not tied to any such episodes. Here's a clearer version of its overall structure.

The dialectic I set up (in essay 8) begins with what I call a traditional view of the mind, nondualistically construed. This is characterized by assumptions of (1) internalism and (2) the general possibility of duplication of internal physical states in different environments. Together, these assumptions generate the possibility of radical illusion that underwrites traditional scepticism. It's essential to recognize that this is the starting point of the relevant dialectic and that the duplication assumption is attributed in the first instance to this traditional view.

The next move is to point out that there are two ways of rejecting the traditional view: you can reject its internalism, in the way that content externalists do, or you can reject its duplication assumption. The first is often attended to, the second rarely. In attacking internalism using Twin Earth arguments, content externalists invoke specific instances of duplication. In any given Twin Earth case, it is common ground between content internalists and content externalists that the Twins are duplicates with respect to internal physical states. This is what gives substance to their disagreement about content, since it is trivial that content can vary with external states if internal physical states vary also. Kobes is quite right to insist that content externalists don't need to assume that duplication is always possible, and I should have made this clear. But this point is quite compatible with my argument. The critical point is that content externalists do not explicitly reject the general duplication assumption, not that they need it (see p. 295-7). It is present as a default assumption or presupposition, given the dialectical starting point in the traditional view, and it tends to be ignored by content externalists. This presupposition may implicitly protect specific Twin Earth duplication scenarios from critical scrutiny in specific cases (such as Davies' ellipse/circle case, which motivated my El Greco arguments). What content externalists and content internalists share is the assumption that duplication is possible in relation to specific Twin Earth cases. I am urging that the duplication assumption should be critically scrutinized in specific cases, and a version of externalism be formulated that makes a point of doing so: that pursues this second way of rejecting the traditional view of the mind. This leads me to consider vehicle externalism.

Notice that while the content externalist only needs duplication to be possible here and there, for purposes of setting up specific Twin Earth inversion scenarios, it does not follow that the materialist descendant of the sceptic can do without the general duplication assumption. From the perspective of the traditional view,

it would not do merely to say: "We can be sure that beliefs about F and G are largely correct, since duplication isn't possible for the inversions that would make them false; but we're still not sure about beliefs about J and K, for which duplication is possible. " That would not underwrite the possibility of radical illusion in the traditional view.

My attack on the duplication assumption of the traditional view takes the form of showing why in some cases, such as my El Greco cases, the specific instance of duplication that would be needed to set up a Twin Earth example may not make sense in principle. But my main purpose was not to attack content externalism per se, other than for neglecting the more radical line of assault on the traditional view and the possibility of vehicle externalism. I think that Kobes is right that the latter can be complementary with content externalism. To put the point in terms of my dialectic, it is worth developing both lines of attack on the traditional view. At several places I should have made a clear distinction between the general duplication assumption of the traditional view and the specific instances of duplication assumed in Twin Earth arguments by both content internalists and content externalists (e.g. at p. 296). Doing so would have strengthened rather than undermined my argument, and avoided misunderstanding of its overall structure and force in relation to externalism.

The bottom line here is: I aimed to suggest that there may be a range of cases for which duplication is not possible in principle (see discussion of the El Greco cases and the comments on pp. 326, 329, etc.) If these arguments succeed, does that do any damage to the traditional view of the mind and its possible-illusion-mongering? I think it surely does. Kobes agrees it would be interesting to show that duplication cannot be achieved for some categories of content, and that the possibility of vehicle externalism is worth pursuing. (I make a speculative attempt to connect the failure of duplication with the idea of vehicle externalism, at the end of essay 8).

On a somewhat technical point: I argued that in my El Greco worlds the needed computations of output-input adjustments would be central in character. I took this point to cut against the possibility of duplicating central processes in these cases, and to show how attempts to achieve duplication can be self-defeating. Kobes also agrees that in these cases the needed computations of output-input adjustments would resemble central processes in character. However, he denies that they would be centered on the agent in question as a matter of "functional topology".

Kobes' position here is not clear to me. In my view, location of the physical adjustment mechanism is not critical, so long as it is within the general ambit of the relevant dynamic singularity and is functionally central in character. It is the whole dynamic singularity rather than the particular adjustment mechanism that needs to be centered on the relevant agent. Processing can be functionally central though distributed, and dynamic singularities don't have sharp boundaries. As I put it, the idea that vehicles might go external takes the idea of distributed

processing to its logical extreme (p. 20). Output-input adjustments that are central in character could be relocated outward, so that there was an eccentrically big loop in the system, while the whole dynamic singularity was still centered on the organism.

Kobes urges that there is a different and clearer route to rejecting duplication in El Greco worlds. As differences between the El Greco world and the actual world ramify, full-fledged virtual reality gear for the Twin will be needed in order to achieve duplication of central states. This will create an illusion that increasingly diverges from reality in the El Greco world.

However, within my dialectic framework this cannot count as a reason for rejecting duplication. The traditional view precisely uses the duplication assumption along with internalism to generate the possibility of radical illusion. Pointing to this consequence of duplication in a particular case thus cannot provide independent leverage against the traditional view.

I now turn to issues about the unity of consciousness. In various essays I am concerned with how to account for the unity of consciousness, which is often taken as primitive in relation to other topics of interest. I consider how normative coherence, among other things, might feature in such an account. Kobes suggests that I don't consider the possibility that the direction of explanation should be reversed, so that beliefs becoming co-conscious, for example, is antecedent in the order of explanation to their normative integration. It is not quite right that I do not consider the direction of explanation Kobes favors: I imply that it takes for granted the very unity on which I am trying to shed light (p. 119; the wording differs from Kobes' but the essential point is implied). To pursue it would thus be to change the subject. Of course, it is a further question whether the unity of conscious is normatively constrained.

On that further point: I claim that there can be no experience with the internally incoherent content: I am seeing just one light and it is wholly red and I am seeing just one light and it is wholly green (p. 118). Consciousness is partitioned in ways that avoid such incoherence (for example, in split brain cases). It seems plausible that this is an example in which consciousness is normatively constrained. Kobes gives a different example to challenge this claim, of a pen held up in the line of sight while focusing past it, such that the pen is 'seen double' but felt single, so long as an out-of-focus gaze is maintained.

Kobes' case is different from the red/green case in several ways: it is one of intermodal incoherence, which is, moreover, subject to my active control: I see double only so long as I look past the pen, and at any time I can look at it and resolve the conflict. It's not clear to me why Kobes thinks his example challenges my claim about the red/green case. Perhaps he attributes to me a broader and more general claim than I intend. However, I could not have intended a claim that rules out intermodal incoherence entirely, since I recognize and discuss many examples of intermodal incoherence, such as cases in which visual and

proprioceptive experience are put into conflict by wearing distorting goggles. And I consider various issues about how and why such incoherence tends to be unstable and to be eliminated through perceptual adaptation, such as issues about whether proprioception adapts to vision or vice versa, and about the role of intentional action in resolving conflicts. Cases of binocular rivalry would be closer to the static, unimodal red/green case than Kobes' case or other intermodal cases. But in rivalry cases there is again no incoherence, even temporary and unstable: visual experience alternates between the inconsistent contents, or one suppresses the other.

Why does the coherence constraint figure differently in different cases? I don't venture an answer to this question in the book. But I suspect it is no accident that intermodal incoherence tends to be unstable, especially when the subject is active, and that this tendency in itself reveals something essential about the unity of consciousness. This suggestion is quite compatible with the fact that intermodal incoherence takes time to resolve. However, the coherence constraint appears to be stronger and more immediate within unimodal, static cases. Perhaps the possibilities of incoherence, even if marginal and unstable, are part of what distinguishes the different modalities of experience.

Kobes also quotes Ian Hacking on multiple personality alters who are said to be 'co-conscious': they argue with each other, snarl, or console. Kobes claims that conscious states across such alters are co-conscious in the sense I am concerned with, despite being normatively incoherent. I am not persuaded of this; these are two different senses of 'co-conscious'. These alters seem to inhabit two different streams of consciousness even though they are co-present, in the sense that two persons are co-present who are in eye contact or jointly attending to something, having a conversation.

In some respects, Kobes goes too far towards attributing a positive "theory" of unity to me. The arguments in the various essays about unity are work in the mines, in the course of which I try out various hypotheses about personal-level and subpersonal-level conditions for the unity of consciousness. I say that normative coherence of conscious contents "may" be necessary for unity but is not at any rate sufficient (p. 120). I am sympathetic to the broadly Davidsonian view that there is some class of common cases for which coherence is a defeasible constitutive constraint on unity. However, I don't try to offer a general specification of the class or the defeating conditions; there may be other constitutive factors at work that determine when the coherence constraint applies. Moreover, Kobes seems to overlook the serious reservations I express about the constitutive role of norms in unity, such as that it is "intuitively implausible to suppose that normative relations provide a constitutive basis for intermittent fluctuation in the structure of consciousness, as opposed to mere evidence of it" (pp. 127-8, etc.). Such worries prompt me to explore two further lines of thought, concerning subpersonal conditions for the unity of consciousness, and the relation of action to the unity of consciousness (p. 128ff).

Overall, my arguments are exploratory and provide, as I say, groundwork for an account of unity rather than a full-dress account (p. 218).

I am grateful to Kobes for prompting clarification on these points.