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Reviewed by David Pereplyotchik

Review: Empiricism, Perceptual Knowledge, Normativity, and Realism: Essays on Wilfrid Sellars, edited by Willem A. deVries

David Pereplyotchik

1. Introduction

The work of Wilfrid Sellars is enjoying something of a revival these days. The newly formed Wilfrid Sellars Society is going strong, and dozens of conferences devoted to Sellars have been held in the past few years. Three recent books lay out Sellars' main lines of thought (deVries 2005; O'Shea 2007; Rosenberg 2007), another offers a critical take (Brandom 2014), and many others draw heavily on Sellars in making contributions to our understanding of sensory consciousness (Rosenthal 2005), perception (Coates 2007; McDowell 1996), philosophy of language (Brandom 1994, 2008; Price 2011), philosophy of mind (Churchland 1979; Dennett 1987; Millikan 1984), epistemology (Williams 1996, 1999), metaphysics (Seibt 1990) and the history of philosophy (Brandom 2002; O'Shea 2014). Given the depth of Sellars' achievements in all of these areas, and the relative lack of attention paid to his work in some mainstream philosophical currents, this revivalist movement is surely a welcome phenomenon. But the Sellarsian *oeuvre* is home to many doctrines, many of which present, either in themselves or in their relations, serious interpretive challenges. Was Sellars a full-blooded realist about normativity, or did his naturalism force him to adopt a more reductionist view? What, in the end, is the best statement of his position on the pivotal divide between the manifest and scientific images, and what consequences does it have for our understanding of perception and knowledge? Is Sellars' account of the latter two phenomena intended to be a wholesale rejection of empiricism, or only a revision of it?

The papers collected in Empiricism, Perceptual Knowledge, Normativity, and Realism aim to provide answers to these and related questions. The collection brings together papers by wellknown, reputable authorities on Sellars' work. Versions of most of the papers were delivered at a 2006 conference at the Institute of Philosophy in the School of Advanced Studies at the University of London, held in celebration of the 50th anniversary of the lectures that would later become Sellars' most influential work, Empiricism and the Philosophy of Mind (EPM). The editor of the collection, Willem deVries, a foremost Sellars scholar, does an admirable job navigating the reader through Sellars' many published works by supplying a useful, comprehensive list of title abbreviations, and maintaining a high standard with regard to citation practices. For instance, all references to EPM throughout the collection include page numbers for each of the three published versions.

DeVries' introduction to the collection begins by noting some of Sellars' achievements and briefly tracing some of the history of EPM and Sellars' other works. It goes on to provide summaries of the papers, helpfully situating them with respect to one another and revealing a number of important thematic connections. The introduction provides a useful catalogue of the epistemological, metaphysical, and methodological problems that Sellars scholarship can shed light on today. The thematic continuities it brings out are a testament to deVries' judicious editorial choices.

The richness of this collection presents a familiar challenge to the reviewer. A thorough analysis of all of the papers proves impossible within any reasonable limits of space, while a more superficial tour would fail to do justice to the depth and merit of each contribution. In what follows, I offer a detailed analysis of six of the ten papers. I begin by discussing John McDowell's and Robert Brandom's competing visions of Sellars' relation to empiricism. I then outline Paul Coates' account of perception, which is modeled on Sellars' Critical Realism, and present some challenges to it. Finally, I examine a theme that runs through the papers by Jim O'Shea, Jay Rosenberg, and Johanna Seibt—viz., Sellars' attempt to achieve a "stereoscopic" vision, in which the relation between the manifest and the scientific images comes clearly into focus. Though I will offer a number of critical remarks, I should say at the outset that the papers are of very high quality; one learns a great deal in studying these pages, both about Sellars' views and about how they can be clarified, extended, and applied to central philosophical issues.

2. McDowell and Brandom on Sellars' Relation to Empiricism

In the opening paper of the volume, "Why is Sellars' Essay Called '*Empiricism* and the Philosophy of Mind'?," John Mc-Dowell argues—contra his colleague, Robert Brandom—that Sellars' intent in EPM was not to dismantle empiricism and endorse a kind of rationalism, but, rather, to effect a revision of traditional empiricism that yields a doctrine more coherent, consistent, and rigorous than the older version. At a finer level of grain, McDowell urges a rejection of Brandom's interpretation of three core features of Sellars' project in EPM: (i) his account of 'looks' statements, (ii) his characterization of the way in which observation reports depend on background knowledge, and (iii) his treatment of psychological nominalism.

McDowell's first major point concerns the question—also taken up by deVries and Coates's entry later in this volume—of whether Sellars analyzes 'looks' talk as merely the withholding of a claim, as Brandom thinks, or, rather, as a genuine *report* of the intentional content of one's experience. He argues convincingly, by reference to smoking-gun passages in EPM §§15–16,

that the latter is the more accurate reading. Along the way, he draws attention to the stark difference between Brandom's notion of a reliable discriminative response disposition (RDRD) and Sellars' notion of the sensory element of perceptual experience. This again spells serious trouble for Brandom's "two-ply" interpretation of Sellars' theory of perception.

McDowell goes on to develop the view that Sellars' project in EPM is not a semantic one, as Brandom has it, but an epistemic one.

To say that a claim depends for its authority ... on the subject's reliability (in a way that requires her to be aware of her reliability) is not to say that it depends ... on her inclination to make it via the "reliability inference". ... Sellars' second hurdle is not to cite the "reliability inference" as part of the inferentially articulated structure in which forms of words must stand if they are to have conceptual content at all. Sellars' thesis is that *observational authority* depends on the subject's own reliability in the second dimension, and this dependence requires that the subject be aware of her own reliability. He invokes the "reliability inference" only as a gloss on the idea of reliability (22, italics in the original).

Although he is plainly right that there is a distinction between the semantic issue and the epistemic issue, it is not clear why Sellars couldn't be making *both* claims in EPM. The upshot of his reliability considerations may be *both* a theory of epistemic authority, as McDowell has it, *and* an application-*cum*confirmation of Sellars' semantic functionalism, as Brandom holds. This would make sense of why Sellars takes observation reports to be *noninferentially* elicited—a point that McDowell seeks to rescue from Brandom's criticism—but in a way that vindicates Brandom's highlighting of the role that Sellars' semantic doctrines play in EPM. Adopting this ecumenical reading would also save McDowell from having to do the very thing (fn. 7, p. 26) that he chides Brandom for doing throughout the essay, namely, suggesting that Sellars' statement of his own view is infelicitous, in order to bolster a controversial interpretation of it.

McDowell turns his attention next to the topic of psychological nominalism. Contra Brandom, he argues that Sellars' brand of that doctrine bears close affinities to the classical versions that we find in Berkeley and Hume. The major difference is that, whereas the classical empiricists applied the doctrine only to determinable repeatables (e.g., red), Sellars' version extends it to the determinate ones as well (e.g., crimson). McDowell's conclusion here strikes me as both correct and illuminating. A compelling reading of EPM comes from seeing it "as aiming to recall empiricism to its better wisdom, in an argument that hinges on its nominalistic proclivities" (30).

In direct contrast with McDowell, Robert Brandom's contribution to this volume, "Pragmatism, Inferentialism, and Modality in Sellars' Arguments against Empiricism," seeks to show that "Sellars' thought lies primarily in the battery of original considerations and arguments he brings to bear against all weightier forms of empiricism" (34). He begins by presenting what he takes to be Sellars' "most general and most powerful argument" (39) against empiricism. On the interpretation he develops, Sellars' target, implicit in EPM but explicit in other works (1957; 1963a), is the strand of empiricism that seeks to elaborate the semantic properties of various target vocabularies-descriptive, primary-quality, theoretical, normative, and modal-from the resources of a privileged base vocabulary, typically phenomenal or observational. Brandom sees Sellars' main objection to this project as resting on the claim that "the proposed empiricist base vocabulary is not pragmatically autonomous: that observational vocabulary is not a vocabulary one could use though one used no other. Non-inferential reports of the results of observation do not form an autonomous stratum of language" (37). The argument for this rests, in turn, on Sellars' view that "one must be able to make claims inferentially in order to count as making any non-inferentially" (38)-a

direct consequence of his functional-role semantics.

Brandom goes on to note that "Sellars does not limit himself to [this line of attack] in arguing against the substantially more committive forms of empiricism that insist on phenomenalist base vocabularies" (39). One such argument, Brandom says, appears in the sections on 'looks' talk, in EPM. The central idea there is that such talk cannot be an autonomous discursive practice, because it is nothing more than a way of evincing the withholding of a perceptual claim that one is, under similar sensory conditions, disposed to make. Above, I endorsed McDowell's argument to the effect that 'looks' claims do not merely evince overridden dispositions to issue a report, but are genuine *reports* in their own right, expressing claims about the intentional contents of one's experiences. This fits well with de-Vries and Coates's arguments against Brandom on this issue, later in the collection. The alternative interpretations offered by McDowell, deVries, and Coates can equally well underwrite the anti-phenomenalist arguments to which Brandom is drawing our attention.

In the second half of his paper, Brandom provides an admirably clear exposition of Sellars' more specific arguments against phenomenalism and instrumentalism. The point is now a familiar one, owing to its repeated invocation, by Chomsky, Fodor, Churchland, and others, against an instance of instrumentalism—viz., analytical behaviorism.¹ In that local case, the objection is that there is no way of formulating subjunctive conditionals in a purely behavioral vocabulary that have the same truth conditions as claims that employ a propositional-attitude term. The behaviorist analysis either gets the truth conditions wrong or covertly sneaks in one or more of the mentalistic concepts that it sought to analyze without remainder. Brandom's discussion reminds us that Sellars' initial statement of this crucial point was quite general, i.e., applicable to *any* form of empiricist reductionism. Thus, the subjunctive conditionals that were supposed to jointly constitute analyses of a theoretical term such as 'electron', or a theoretical sentence such as 'The electron has changed location', will inevitably make use of other theoretical terms—'proton', 'current', 'volt ohmmeter', etc.—in their antecedents. Similarly, the subjunctive conditionals that the phenomenalist appeals to in analyzing a material-object term, such as 'apple', or a materialobject sentence, such as 'There is an apple on the table in the kitchen', will generate the wrong truth conditions if they fail to include reference to other material objects—the kitchen, the table, etc.—in their antecedents.

Following up on this issue, Brandom points out that Sellars saw these reductionist efforts as standing in stark conflict with the traditional empiricist scruples concerning the modal notion of necessity.

[The] adequacy of the [empiricist] reconstruction also turns out to require appeal to counterfactually robust inferences in the base vocabulary. Insofar as that is so, the constructive semantic projects of the phenomenalist, instrumentalist, and secondary-quality forms of empiricism are at odds with the local semantic skepticism about what is expressed by alethic modal vocabulary that has always been a characteristic cardinal critical consequence of empiricist approaches to semantics, as epitomized for its traditional phase by Hume and for its logicist phase by Quine ... (46)

Brandom lays out Sellars' view, according to which empiricist scruples about modal notions not only hinder the constructive proposals that empiricists have aimed to develop, but are also unfounded. He identifies a key premise in Sellars' argument, what he calls "the Kant-Sellars thesis", according to which the use of ordinary *descriptive* vocabulary presupposes inferential abilities that can be leveraged to permit the legitimate introduction of *modal* vocabulary. If this thesis is true, Brandom argues, then we cannot find ourselves in the position that Hume seems to envisage, of being able to offer empirical descriptions of the world but finding modal notions mysterious in principle.

In articulating the Kant-Sellars thesis, Brandom draws on two themes that recur in Sellars' work-his functionalist treatment of intentionality and his distinction between saying and conveying. Sellars' semantic functionalism, combined with a handful of auxiliary hypotheses, has the following conseguence: In order to have the kind of intentional content characteristic of objective empirical descriptions, an item in an agent's linguistic or cognitive repertoire must be involved in a range of material inferences. The agent must, that is, have the practical ability to infer that item from some of her collateral commitments, and not from others. An agent capable of making empirical claims thus has an *implicit* understanding of which claims would remain true in counterfactual circumstances. From her current commitment to the effect that the match is dry, she infers that it will light when struck, but had her commitments included one to the effect that there is no oxygen in the room, the same inference would not be drawn. This practical ability, Brandom claims, is all an agent needs to have in order to be in a position to learn how to deploy subjunctive conditionals like 'If there were no oxygen in the room, then the match wouldn't light'. For, though such claims do not describe a pattern of inference, in the sense of saying that one can, will, or must infer the consequent from the antecedent, they do convey one's practical commitment the goodness of that inference, in the sense that they allow one to express that commitment verbally-to make explicit in speech what was previously implicit in practice.

Brandom's rendering of Sellars' rather underspecified distinction between saying and conveying is both clear and helpful. It is of a piece with his strikingly original and impressive exploration, in *Between Saying and Doing* (Brandom 2008), of the systematic relations between meaning and use. Moreover, his application of this distinction in sharpening Sellars' nascent expressivism about modal vocabulary is a notable achievement. But it remains unclear how these lessons can be used in answering Quine's challenge to the intelligibility of quantified modal logic. That challenge, directed against ascriptions of *de re* necessity, is rooted in the observation that quantification into opaque contexts is unintelligible in a language that has concrete singular terms, and requires a commitment to Aristotelian essentialism even in a language whose only singular terms are the variables of quantification (Quine 1953b,c). It is not obvious how the practical inferential abilities that Brandom sees as sufficient for the introduction of modal locutions could put one in a position to understand such quantificational practices. It's one thing to be able to rate some subjunctive conditionals true and others false, and quite another to understand that objects have some of their properties accidentally and others essentially, independently of how those objects are specified.

3. Coates on Sellars' Critical Realist Account of Perception

Paul Coates' contribution to this collection, "Perception, Imagination, and Demonstrative Reference: A Sellarsian Account," offers a rich account of perception, modeled on the Critical Realism that Sellars developed in piecemeal fashion throughout his career. Coates distills the main tenets of the view, supplements them with a refined version of Sellars' neo-Kantian claims about the role of the imagination, and resolves several outstanding challenges facing the resulting position. I find much to agree with in Coates's articulation of Critical Realism. But, whether taken as an interpretation of Sellars' position or as a positive hypothesis about the nature of perception, his account seems to me to face a difficulty. His commitments about our awareness of the so-called "phenomenal qualities" of our sensory states are not entirely consistent, and some of what he says is open to direct challenge on general Sellarsian grounds.

Coates begins by enumerating the four conditions that the

Critical Realist takes to be individually necessary and jointly sufficient for a creature to perceive an object: (i) the object must exist; (ii) the perceiver must be in a sensory state-a nonconceptual state, with "phenomenal qualities"; (iii) the perceiver must apply classificatory concepts in forming a propositionally contentful perceptual judgment; and (iv) there must be an appropriate, survival-conductive causal chain connecting the object and the internal states of the perceiver. When these conditions are met, the perceiver is directly aware of the object in her environment, despite the fact that her perceptual judgment is causally mediated by a sensory state. "In standard veridical cases of perception, the subject is directly aware, at the conceptual level, of the physical object he or she perceives; that is, the subject forms a noninferential perceptual thought, or 'taking', referring to an external object" (65). Thus far, the account is familiar from Sellars' work. But Coates goes on to add a troubling stipulation: "Nevertheless, the subject is at the same time immediately aware, nonconceptually, of inner phenomenal (or sensory) states that mediate the perception of the external object" (65). Coates takes this to be an additional condition on perception, and he invokes it several more times throughout the essay.

[W]e can employ concepts referring directly to physical objects that transcend inner experience; such concept use is then guided by *a nonconceptual awareness of the phenomenal states*. Secondly, when we adopt an introspective mode of attention, we are (causally) prompted to exercise concepts referring directly to the inner phenomenal states themselves. (67–8, italics added) ... The awareness of phenomenal qualities of some kind is certainly an essential ingredient in normal perception. (86)

But this condition was no part of Sellars' view. Indeed, Sellars did not think that there was any such thing as "immediate nonconceptual awareness". For him, all *awareness* is, strictlyspeaking a linguistic or conceptual affair. Nor does this condition follow from the other four listed above. It might be thought to follow from (ii), but it is a familiar Sellarsian point that to have a sensory state is not automatically to be *aware of* that state, or of any of its properties-conceptually or otherwise. Coates appears to reject this. In the following passage, for instance, he equates being (nonconceptually) aware of a phenomenal state with simply being *in* that state: "At the nonconceptual level, I am aware of a visual phenomenal state caused by the apple. This consists, at a basic level, of a sensing state, that is, of visual sensations of an expanse of red" (70). This is the very point that Sellars was at pains to reject in EPM, when he insisted that our Rylean ancestors, the pre-Jonesians, had full-blown perceptual states despite their not having a theory of sensory states or of phenomenal properties, and hence no awareness of such things. Moreover, even when the post-Jonesians do become aware of their sensory states, their awareness is neither nonconceptual nor immediate. It is conceptual through and through, and mediated by explicit applications of Jones' theory. On Sellars' account, we are aware of our sensory states, initially, via an inferential process, which draws on an explanatory theory that posits such states as intermediaries between the world and our conceptually contentful perceptual judgments. Later, the inferences that constitute the applications of this theory become automatic, and the judgments to the effect that one is in a particular sensory state eventually become noninferential.

In replying to his Direct Realist opponents, Coates relies on the claim that perception requires immediate and nonconceptual awareness of sensory states.

[F]or normal human beings, the phenomenal aspect of inner experience is psychologically necessary for prompting the conceptual states that refer directly to external physical objects. *The subject is aware that immediate experience of some kind is necessary for perceptual reference*, but the necessity is causal. The subject's inner experience prompts and guides the subject's perceptual taking. This taking contains individual concepts targeted directly, without inference, upon the perceived object. (86, italics added)

The italicized phrase in this passage is intended to illustrate how a Critical Realist can capture the phenomenon of immediacy that Direct Realists appeal to in bolstering their view. Normal perceivers are indeed, Coates thinks, aware that some form of immediacy is involved in making perceptual reference, but that need not entail that physical objects-apples, dogs, and the like—are themselves grasped *immediately* in perception. There is mediation, though only of a benign causal sort. But, if Sellars is right that awareness of sensations, or of their phenomenal properties, need not be involved in cases of genuine perception-as, for instance, with the pre-Jonesian Ryleans, and perhaps babies and nonhuman animals-then Coates' explanation fails. The subject need not be aware of any immediate experience in making perceptual reference; all that is required is that the perceiver be *in* sensory states that causally covary with the environment. This point will recur when we turn our attention to Coates' account of the role that imagination plays in perception.

Coates goes on to outline the major commitments of the Critical Realist account of perception. The first is what he calls "the Kantian thesis", according to which perception consists of two components, sensory and conceptual. (The label "Reid's thesis" would, I think, have been equally apt.) The second is the "inner state thesis", which has it that perceptions are internal states of a perceiver, distinct from the external objects in her environment. The third is the "directness thesis", which holds that the objects referred to in perception are external objects, not the inner states themselves. In spelling out this latter thesis, Coates adds a caveat that gives rise to potential problems: "While my perceptual taking is ... psychologically direct, it nevertheless has presuppositions that, if prompted, I could articulate. These relate to my own capacity as a competent perceiver, and to other contextual matters (e.g. my background belief that the lighting is normal)" (67). This claim, taken as a necessary condition on perception, precludes straightforward ascriptions of perceptual abilities to nonlinguistic animals. This is not only out of sync with our actual practices in describing and explaining the behaviors of dogs, cats, and the like; it also doesn't jibe well with the dominant views in cognitive ethology. Of course, neither common sense nor contemporary science is beyond reproach. But one would like to hear more about the commitments that require us to enforce this revisionist picture. Perhaps, when the dust settles, those commitments force nothing more than a recognition that human perception is, in some respects, different from the nevertheless genuinely *perceptual* abilities of nonlinguistic animals. This ecumenical view promises to capture what is right about Sellarsian approaches to perception, while leaving core commitments of common sense and cognitive ethology unscathed.

In the remainder of the paper, Coates sets about the task of answering two foundational questions facing the Critical Realist. (1) How does the sensory element of perception combine with the conceptual element to form a unity? (2) How can it be that we sometimes refer to the external world and other times to our sensations and perceptions? Coates is right that these questions set important adequacy conditions on the success of Critical Realism as an account of perception. His answers to both are illuminating.

In addressing question (1), Coates draws on Sellars' remarks about the role that the productive imagination plays in perception. Sellars' neo-Kantian suggestion is this: Upon physically encountering an object, a perceiver undergoes a sensation, which in turn causes the application of concepts. The concepts initiate an operation of the imagination, which generates a "sense-image-model"—a subjective, perspectival sensory episode that, Sellars claims, is an integral part of the overall perceptual experience. A sequence of such sense-image-models makes for a psychological "schema" of the object, a stored recipe for generating the transformations of sensory states that an object can engender under various viewing conditions. The imagination draws on such schemas in producing experiential expectations and predictions. Sellars intends this as a important part of the account of how sensations and concepts are unified, and of how we can perceive a three-dimensional world. As Coates puts it,

[Sellars] wants to do justice to the phenomenological fact that we seem to experience more than surfaces—we experience objects as solid, extended into space, having depth and hidden parts, and so on. The apple I see is somehow in my consciousness as a whole, three dimensional object, a volume of edible white fruit, enclosed in its red-coloured skin. (70)

Coates objects to Sellars' account, on what appear to be firstperson phenomenological grounds.² We might, he concedes, have an image of the inside of the apple, but we don't have an image of a dog's insides when we perceive it as being full of flesh. This is plausible enough, as first-person introspective judgments go, and Coates provides an interesting explanation of the difference. Whereas the actions one is disposed to take toward the apple frequently reveal its interior, this is typically not so for actions taken toward dogs. (Perhaps a study of the phenomenology of veterinarians would lend support here.) Coates advances the idea that our practical dispositions toward objects feed back into our perceptual systems via the imagination, prompting the activation of the sense-image-models that pertain to the very actions that we are disposed to perform. The revision that Coates suggests to Sellars' account is thus twofold: the "images" must be implicit, in the sense of being dispositional, and they must be tied up with the actions that we are disposed to perform.

According to the revised account I am suggesting, the imagination plays a role in this way: in noticing that what I see is a dog, I am prepared for certain kinds of typical *transformations* to the phenomenal elements of my visual experience. I have *implicit expectations* about the probable future changes in the nonconceptual phenomenal aspect of my experience. Of particular importance are the expectations I have of the probable experiential consequences of my own actions. (74, italics in the original)

This, I think, is a genuine improvement on Sellars' view, in two respects. First, it accounts for the relevant aspect of experience in more parsimonious terms than Sellars does, positing dispositions where Sellars posited occurrent states. Second, it is a useful application of the idea that perception and action are more tightly coupled than some traditional views suggest. Nevertheless, a closer look at Coates' dispositional notion of sense-image-models reveals a difficulty, related to the one raised above, concerning the need to posit awareness of our sensory states over and above positing the states themselves. In keeping with his earlier remarks on the immediate, nonconceptual awareness of sensations, Coates suggests that sense-imagemodels generate expectations about the future course of *experience*, rather than of the objects in our environment.

[W]hen I classify something I am experiencing as a dog, I have implicit expectations about how *my future experience* will vary, in a way that is consistent with seeing a dog. ... [I]n noticing that what I see is a dog, I am prepared for certain kinds of typical transformations *to the phenomenal elements of my visual experience*. I have implicit expectations about the probable future changes in the non-conceptual phenomenal aspect of my experience. ... These anticipations ... all involve dispositions on my part relating to typical patterns *of phenomenal experience* associated with the relevant kind that I observe. (74–5, italics added)

But why expectations about *experience*? Why not expectations about the dog itself? Indeed, why would classification of dogs, or of any other kind, require any metarepresentational gymnastics at all? Note that this is no mere oversight on Coates' part, for he is clearly alive to the distinction, as the following passage illustrates. [W]hen I introspect my experiences, and consider them as subjective states, and distinct from the external objects which cause them, I have implicit expectations relating to potential changes in my experiences. I am able to act upon my experiences in ways that are very different from the ways that I act upon physical objects. For example, I can directly change my visual experience of a dog by closing my eyes, or by altering my focus so that I see the dog double. Such a change in my experience is of course very different from the change I cause to the dog when, for example, I take hold of its lead and it jumps up in an excited manner, expecting to be taken for a walk. (81)

While this account may be applicable to perceivers who are already apprised of the existence of sensations and phenomenal properties—students of Jones, like ourselves—awareness of such things ought not be promoted to the status of a necessary condition on perception. Doing so commits one to the idea that, at least with regard to recognitional concepts, a perceiver cannot make 'is'-claims on the basis of sensory input until she has expectations about various 'looks'-facts. Though Sellars would have certainly rejected this idea, Coates appears to endorse it when he writes: "I can apply recognitional concepts such as DOG and APPLE directly, *because* I know how objects of the corresponding kinds *look* under different conditions" (74, italics added). The Sellars of EPM argues for exactly the opposite order of explanation, as Coates and deVries point out in their co-authored contribution later in this volume.³

Summing up the discussion thus far, we see that Coates' answer to the first major challenge for Critical Realism—i.e., to account for the unity of the sensory and the conceptual—is compelling in many respects, but incorporates problematic commitments. In particular, it requires that a perceiver be immediately and nonconceptually aware of the phenomenal properties of her sensory states, and that she generate expectations about their future transformations. I have argued that these requirements conflict with several core tenets of Sellars' view of

perception. I turn now to Coates' answer to the second major challenge for Critical Realism—viz., articulating an account of the fact that our awareness is sometimes keyed to objects in the world and at other times to our own inner states.

As a first step toward meeting this challenge, Coates discusses the fascinating example of "minimal access surgery", wherein doctors operate on the internal organs of a patient by looking at images on a video monitor, which come from a small camera placed inside the patient's body. After suitable handson training, doctors are able to make direct reference to internal organs, solely on the basis of what they see on the monitor. This example of "displaced perception" brings out three important points. First, perceptual reference requires a reliable causal link. Second, although the images on the monitor are only causal intermediaries, they can themselves become objects of attention and conceptualization. Third, such images have, in addition to their etiology, various "intrinsic" properties, e.g., color and shape. Coates then uses these three points in drawing an analogy between the images on the screen and the sensations that give rise to perceptual judgment. The analogy is not, of course, perfect, but Coates does an admirable job of carefully isolating just those elements that are necessary for his purposes. Sensations, he notes, are reliably causally linked to the world, and, despite being only causal intermediaries in perception, they can themselves become the objects of attention and conceptualization, whereupon we become aware of their "intrinsic" properties. This account strikes me as entirely correct, provided that we leave open the possibility that the non-etiological properties of sensations are not, strictly speaking, "intrinsic", but are, rather, determined by their place in an internal system of similarities and differences (Sellars 1963a; Clark 1993; Rosenthal 2005). Notoriously, Sellars insists that such functional properties are not to be identified with the intrinsic qualitative or phenomenal properties of sensations. But Rosenthal (forthcoming)

provides compelling grounds for rejecting this view.

The analogy between sensations and the images on the monitor prompts an objection to Critical Realism, which alleges that the view can't explain demonstrative reference to public objects. The objection, launched by the Direct Realist, has it that such reference would require the public object to be available *directly in phenomenal experience*. But if the phenomenal qualities of experience are properties of a *private* inner state, then the reference to public objects would have to be *indirect* after all. This objection assumes, what both Sellars and Coates are at pains to reject, that the *causal* mediation of perception by sensory states constitutes an *epistemic* mediation, because whatever *causes* the perceptual judgment is what the judgment must then be *about*. Coates offers a version of this rebuttal, arguing persuasively that the Direct Realist's notion of acquaintance, or immediate presence in experience, is a version of the Myth of the Given.

4. O'Shea, Rosenberg, and Seibt on The Clash of the Images

Arguably the most formidable obstacle to offering a unified and coherent account of Sellars' thought is his distinction between the scientific and the manifest images of the world. This distinction provides a rubric for unifying the interrelated problems of reconciling minds with bodies, norms with facts, reasons with causes, sensations with brain processes, persons with nature, common sense with science, and appearance with reality. Let us examine how these problems arise in the context of his project of achieving a synoptic vision, in which both the scientific and the manifest images are given their due.

One way of casting the project is this: To achieve a synoptic vision, we must come to see how persons can be, on the one hand, natural objects—made up of the same basic entities or processes as everything else in the world—but, on the other hand, also the subjects of sensory experience and rational thought. These latter descriptions of persons point to the two aspects of the traditional mind-body problem: the so-called "hard problem" of sensory consciousness and the problem of locating intentionality in the causal order. In Sellars' philosophy, these two problems arise in distinctive ways. The problem of sensory consciousness is rooted in what he sees as a mismatch between the "ultimate homogeneity" of sensory qualities and the particularity of the objects and processes that the scientific image postulates in explaining them. Intentionality is a different story. For Sellars, the rationality of persons and the intentional properties of their states are ultimately a matter of how conceptual norms are instituted in social groups. So the problem of intentionality shows up as a special case of the more general problem of reconciling facts and norms-the "is" of science and the "ought" of common sense.

In his contribution to this collection, "On the Structure of Sellars's Naturalism with a Normative Turn," Jim O'Shea brings the fact-norm dimension of this problem into focus by pointing to a tension between two of Sellars' core commitments. On the one hand, several well-known passages demonstrate Sellars' commitment to the ontological priority of the natural, i.e., the ultimate reducibility of everything to the basic entities that enter into causal relations within Space and Time—fundamental denizens of the scientific image. But, as illustrated in various other passages, Sellars *also* holds that the norms that characterize human conceptual activity—the norms that structure the logical space of reasons—are *irreducible* to anything in the aforementioned causal network. Thus, the items of the manifest image appear, in Sellars' view, to be both reducible and not reducible to those of the scientific image.

Jay Rosenberg's discussion, in "On Sellars's Two Images of the World," sets up the problem in a slightly different way. Rosenberg focuses less on issues to do with norms and more on the ontological issue concerning the *entities* posited by the manifest and scientific images. In particular, he draws attention to the fact that one of the primary categories within the manifest image, that of *self-conscious persons*, appears to be absent from the scientific image, which recognizes only bodies made up of cells, molecules, atoms, and so on. Of course, insofar as Sellars' account of both self-consciousness and personhood is cast in terms of norms, the two sets of issues will be intertwined. But Rosenberg sees the ontological issue about persons as primary, because "norms exist only immanently in the activities of persons" (286).

The papers by Jim O'Shea, Jay Rosenberg, and Johanna Seibt can all be seen as addressing the issues that arise for the Sellarsian project of bringing the two images together into a "stereoscopic" vision. Each offers a distinctive approach to this task, emphasizing one of three strategies that can be gleaned from Sellars' work. The first strategy, exemplified by O'Shea's discussion, involves drawing a distinction between two kinds of reducibility-causal and conceptual. This opens up room for a view on which the normative is *causally* reducible to the natural, without thereby being conceptually reducible to it. A second strategy, on display in Rosenberg's paper, is to show how the scientific image can rationally replace the manifest image. Rosenberg sees the entity concepts of the scientific image as successors of those that constitute the manifest image. The third strategy, pursued by Johanna Seibt in her paper, "Functions Between Reasons and Causes: On Picturing," is to *unify* the natural and the normative by placing them on a spectrum. On this approach, some entities and processes have no normative status, while others exhibit a "low-grade" normativity, in that they have teleological functions that are rooted in the objective goal of self-maintenance. Positing a hierarchy of such "low-grade" normative statuses makes it possible, in turn, to see how the "high-grade" normativity exhibited by persons and their activities could have arisen in a natural world.

Although these strategies initially appear to be in competition, they are, I think, more profitably viewed as complementary. For one thing, Sellars' rejection of what O'Shea calls the "conceptual reduction" of norms to facts is compatible with Rosenberg's claim that Sellars sees the posits of the scientific image as replacements, in our conceptual scheme, of the posits of the manifest image. O'Shea would agree that the scientific image can yield a complete description of persons and an accurate explanation of their activities, cast in resolutely naturalistic terms. Moreover, Rosenberg does not seek to define normative concepts in naturalistic terms and is not committed to the dispensability of the normative concepts from the manifest image-paradigmatically 'ought'. And both Rosenberg and O'Shea could agree with aspects of Seibt's account, on which this naturalistic story requires reference to a hierarchy of "lowgrade" norms exhibited by various natural systems. In what follows, I expand on these points and then conclude by raising some challenges to the teleological commitments involved in specifying the "low-grade normativity" of what Sellars calls "picturing".

O'Shea begins by setting up the problem of reconciling the reductionist and antireductionist tendencies in Sellars' thought. Before offering his own solution, he rejects what he calls "separatist" and "eliminativist" reactions to this problem. Both of these see conceptual norms as fundamentally inexplicable in naturalistic terms, but they draw different conclusions from this. The separatist concludes that science is incomplete and must be *supplemented* with a non-natural ontology, while the eliminativist treats the conceptual framework of norms and persons as simply false and in need of *replacement* by a more hardnosed scientific worldview. O'Shea argues that both are mistaken, in that their shared premise violates the Sellarsian project of achieving a stereoscopic vision. His positive suggestion for

achieving that goal is to draw the aforementioned distinction between causal and conceptual reducibility.

As O'Shea shows, this distinction arises in the course of Sellars' discussion of the is/ought dichotomy in ethics, in his 1953 paper, "A Semantical Solution of the Mind-Body Problem". Sellars there contrasts his own position with two others-the intuitionist and the naturalist. The intuitionist, in seeking to demonstrate that normative concepts are not definable in nonnormative terms, feels the need to argue that there must be real normative properties in the world and a nonnatural faculty of moral intuition by means of which we come to grasp them. By contrast, the ethical naturalist maintains that moral cognition and practical reasoning can be described and explained entirely in naturalistic terms, but feels the need to show that normative concepts must, after all, be definable in nonnormative terms. Sellars' own position combines the naturalist account of moral cognition with the intuitionist's semantic thesis. Although normative concepts cannot be defined in nonnormative terms, and hence cannot be dispensed with-even in the ideal-a complete and fully accurate explanation of how such concepts came into being is indeed contained in a purely *natural* history of moral agents. Thus, norms are causally reducible to natural facts, but normative concepts are not logically or conceptually reducible to naturalistic ones. The former sort of "reduction" is explanatory, whereas the latter is semantic.

O'Shea goes on to illustrate how this distinction manifests itself in Sellars' discussions of concept acquisition and semantic discourse (Sellars 1954, 1962b). One central idea here is Sellars' account of 'ought' statements as expressing individual- and group-level intentions, and thus being acquired in the course of learning to follow up an 'ought-to-do' claim (e.g., "I ought to run") with an action of the kind that the claim specifies (e.g., running). Although the story of how an individual acquires such concepts can be told entirely in naturalistic terms, the concepts thus acquired are irreducible to purely descriptive concepts, which lack the requisite connections to action, and thus have no motivational force. This allows Sellars to champion the principle that "espousal of [normative] principles is reflected in uniformities of performance" (Sellars 1962b, 216), *without* reading 'reflected' in a way that commits him to the *definability* of 'ought' claims in terms of 'is' claims, let alone to the dispensability of the former.

Let's turn now to Rosenberg's discussion, which is structured by two guiding questions. The first has to do with what, precisely, engenders the conflict between the Manifest and the scientific images. He concludes that "a theoretical posit represents a challenge to a conceptual framework ... when it purports to tell us from what elements the framework's basic entities are constituted, that is, when it is ostensibly a story about 'more basic' entities out of which those entities are composed" (287). Sellars' aforementioned worries about the "ultimate homogeneity" of sensory qualities provide the impetus for thinking that neuroscience offers not a refinement of our commonsense framework, but a *replacement* of it by something "more basic."⁴ Having articulated what he sees as the crux of the conflict, Rosenberg addresses a second question, about what sort of epistemic warrant the scientific image must enjoy in order that it present a credible challenge to our commonsense view of ourselves and our place in the world.

To answer this, Rosenberg draws on Sellars' account of the function of theoretical reasoning, including both commonsense belief revision and the postulational methods of the natural sciences. On this account, an explanatory anomaly in an earlier conceptual framework leads to a search for a successor, which, when found, reinterprets the posits of the earlier framework as mere *appearances*. The new framework is taken to describe the reality that *explains* those appearances. With this in mind, Rosenberg argues that the manifest image "contains the seeds of

its own destruction," in two distinct ways. First, it distinguishes between appearance and reality, and endows the method of theoretical postulation with the epistemic authority to underwrite ontologically significant conclusions. Second, it encounters an explanatory anomaly of its own. In seeing a fundamental discontinuity between persons and the rest of the natural world, it renders the relationships between them utterly mysterious. Only by moving to a scientific description of the world can this discontinuity come to be seen as mere appearance. Rosenberg cites the following passage from Sellars in support of the latter claim.

It is in the scientific image of man-in-the-world that we begin to see the main outlines of the way in which man came to have an image of himself-in-the-world. For we begin to see this [as] a matter of evolutionary development as a group phenomenon, a process which is illustrated at a simpler level by the evolutionary development which explains the correspondence between the dancing of a worker bee and the location, relative to the sun, of the flower from which he comes. (Sellars 1962a, 54)

It is important to note that Rosenberg does not see the scientific image as simply denying the existence of persons, without further comment. Rather, persons are *reconceived* in the scientific image as things whose *apparent* existence and nature can be fully explained by a deeper and more accurate conceptual framework.

Sellars's striking contention, we now see, is that only a scientific world-picture which indeed exercises its prerogative to supersede the descriptive ontologies of everyday life can finally supply resources for explanatorily accommodating the very existence of the manifest image, i.e., for properly locating the normative conceptual order within the causal order of (a categorially homogeneous) nature. (294–5)

This accords with O'Shea's conclusion that "[w]hat there ultimately really is, for Sellars, is, so to speak, what the ontology of the envisioned ideal scientific image finally says that there is. So in this sense persons, like everything else in nature, are ultimately complex patterns and sequences of micro-physical events" (207). Note, though, that O'Shea assumes here a fairly high degree of continuity between the concept of a person and the concepts that replace it in the final scientific story. This is why he does not claim that there are no persons, but only that persons *are* (empirically discovered to be) patterns of microphysical objects, events, or processes. This is of a piece with his rejection of what he calls "eliminativism". What remains to be determined is whether Rosenberg's position fits that label. After all, Rosenberg does see the displacement of the concept of a person in the final scientific story as a denial of the existence of persons. Is this not eliminativism?

I think the case can be made that it is not. Briefly put, the argument is this. What is required for elimination, in O'Shea's sense, is not only explanatory reduction, which Rosenberg grants, but definitional reduction-i.e., some form of semantic or conceptual equivalence. For, only the latter can secure the dispensability of a set of concepts. I see no evidence of semantic reductionist ambitions in Rosenberg's paper. And if he likewise accepts Sellars' account of the expressive and motivational functionhence, the meaning or semantic content-of 'ought' statements, then he would be as committed to denying a conceptual reduction of norms to facts as O'Shea is. Rosenberg would then be free to recognize any degree of continuity between the commonsense concept of a person and the ultimate replacement of that concept in "the final science". Even a low degree of continuity would not amount to eliminativism, for there is no serious possibility of displacing the practical use of 'ought' claims. If nothing else, the facts of reproduction require that such claims be available for use. Scientists, no matter how sophisticated, will always need to procreate. As long as this constraint remains in place-and how could it ever not?-uses of 'ought'

will be indispensable.

Turn now to Seibt's account of Sellars' synoptic vision. Sellars' aforementioned references to evolutionary theory and to the communication system of the bees feature prominently in her interpretation, as key ingredients in an explication of Sellars' difficult notion of "picturing". Seibt emphasizes the need to view human conceptual and linguistic activity as a development out of the more primitive activities that we find in animals, bees, bacteria, and other self-maintaining natural systems. Such natural representational systems-or, more accurately, orientational systems-are common in the biological world and stem from even simpler natural phenomena that exhibit a degree of self-maintenance. Seibt sees these as necessary precursors, both phylogenetically and ontogenetically, to our own more sophisticated engagement with our environment. Moreover, the "natural-(pre)linguistic objects" that constitute these systems have the semantic functions of referring to things and characterizing them. This is, in Seibt's view, the key to understanding how they can play a role in what Sellars calls "picturing."

Seibt's goal in advancing this familiar gradualist doctrine is not only to reconcile the scientific and manifest images—facts and norms—but also to shed light on the way in which Sellars addresses a worry about what we might think of as the *objective purport* of our linguistic and conceptual representations. More specifically, she seeks to articulate the grounds for Sellars' claim that when we change our concepts, "we do not change that to which we are responding" (Sellars 1981, I, §87). This connects with one of the main themes in deVries' paper, "Getting Beyond Idealisms". There, deVries argues that an appeal to the notion of picturing is the only thing that might rescue Sellars from commitment to a rationalist form of idealism, *à la* Kant or Hegel.

On Seibt's interpretation, Sellars divides the problem of intentionality into two components—one pertaining to what I earlier called the "objective purport" of linguistic representation, and the other having to do with the notions of meaning and content. The latter has dominated the attention of philosophers in what she calls the "social-pragmatist movement", who have, in her view, focused far too exclusively on the normative domain, thus "leaving the darker causal issues to the purview of neuroscientists or behaviorists" (249). Seibt contends that a more thorough development of Sellars' notion of picturing can fill this gap and thus provide a more satisfying account of the relation between norms and facts than we find in the simple slogan that "espousal of [normative] principles is reflected in uniformities of performance" (Sellars 1962b, 216).

In articulating Sellars' notion of picturing, Seibt offers an account of the nature of the "natural-(pre)linguistic" objects (NPLOs) that constitute what I will call "representationalorientational" (R-O) systems. Drawing on Sellars' discussion of Jumblese, as well as the important clarifications he offers in "Mental Events", she distinguishes between (i) the mandatory se*mantic* requirement that NPLOs denote and characterize things in the world, and (ii) the optional syntactic requirement that they implement these semantic tasks by means of names and predicates. She moreover points out that R-O systems need only behave as if they were sensitive to the logical relations between their representational states. The inference-like transitions between such states need be nothing more than brute associations. Explicit awareness of logical relations is a phylogenetic and ontogenetic latecomer-a crucial step in achieving what Brandom (1994, 2008) calls "semantic self-consciousness".

Seibt emphasizes that NPLOs constitute R-O systems in virtue of *isomorphisms* that obtain between those systems and various aspects of the natural world. She sees these isomorphisms as underwriting an analogy between the NPLOs and the *observation* statements of a discursive practice: "a natural-linguistic object is a member of any collection of material items

that we can take to be functional analogues of the observation statements of some natural language" (253). But it is not at all clear why the analogy should relate NPLOs only to *observational* reports. Why not also to nonobservational thoughts and volitions? Surely, an internal navigational system will need not only to construct a map, but to make quasi-inferential transitions between the items in the map and to draw action-guiding consequences. Indeed, despite her repeated insistence on the analogy to observation statements, Seibt goes on to acknowledge that "in order for a collection of material items to count as an embodiment of an orientation system, these items must exhibit uniformities corresponding to the tripartite rule set of a natural language, governing language entry, intra-linguistic transitions, and language departure moves" (255).

While this condition on R-O systems is a welcome amendment, it makes the notion of an isomorphism between such systems and the world more difficult to grasp. A map may well be isomorphic to its territory, each point and line corresponding to a location or spatial relation, or to observation statements concerning such things. But a system that has, in addition, states that do not correspond to observation statements, but also to "intra-linguistic transitions, and language departure moves," is not isomorphic to the world in any obvious sense. Perhaps what Seibt intends is that some aspect of that system—some subset of its states, perhaps-is isomorphic to the world. But even this suggestion is open to the well-known difficulties that bedevil resemblance-based theories of content. The most serious, to my mind, is that it is trivial to construct indefinitely many isomorphisms between any two systems of any reasonable complexity. The real question concerns why some of these are *privileged*. And it is here that Seibt appeals to teleology.⁵

Arguably Seibt's most important claim is that R-O systems have a kind of "low-grade" normativity—an objective teleological nature, rooted in their role in self-maintenance. It is only by invoking this claim that her account could hope to bridge the gap between purely natural processes (e.g., erosion) and the full-blown explicitly norm-governed activities of human discourse and reasoning. By positing a gradual transition from the latter to the former, both become intelligible as poles on a dense spectrum. Here again, though, traditional worries arise, this time pertaining to the status of teleological ascriptions. For, the main adequacy condition that Seibt places on a account of teleology is that it locate *objective* norms in nature. Seibt views Millikan (1984), for instance, as providing an account of teleological ascriptions that are merely "as if" (271: fn. 25), and she seeks to do better. "[It will] not do to explain in evolutionary terms the existence of one-to-one correlations between sets of natural objects such that one of these can be interpreted as language. It will not do to argue that there are biological systems exhibiting behavior (such as the dance of the bees) to which we can apply the normative vocabulary that characterizes linguistic episodes" (271, italics in the original).

To meet this stringent explanatory demand, Seibt draws on ideas developed by theorists in the "interactivist" camp particularly Christensen and Bickhard (2002), whose account of natural functions centers around the phenomenon of selfmaintenance in systems that are far from thermodynamic equilibrium.

A [far-from-equilibrium] system is autonomous (self-maintenant) if it interactively generates the conditions required for its existence ... contributions to autonomy are the basic instances of serving a function ... the asymmetry functional/dysfunctional is derived in this model from the fundamental physical asymmetry between far-from-equilibrium and equilibrium systems. (Christensen and Bickhard 2002, 19)

Seibt takes the most primitive example of this to be a candle, whose components interact with the environment and one another for a period of time in maintaining continuous burning. Turning her attention to more complex systems, she writes:

But unlike regulatory cycles with positive or negative feedback in arbitrary natural processes, self-maintaining far-from-equilibrium systems cannot be described exhaustively in a purely causal idiom. While the increase or decrease of an existing process can be described as the causal effect of another, a richer dependence relation is necessary to describe a process configuration where all component processes depend in their very existence on each other. Thus the functionality of the components of selfmaintaining systems is not a matter of ascription—the existence of a self-maintaining system is a functional norm put directly into nature. (277)

But while it is true that appeal to richer dependence relations is necessary to describe a bacterium, say, than a candle, the richness is only a matter of degree, not of kind. There is simply no reason to believe that a bacterium "cannot be described exhaustively in a purely causal idiom." The description would, of course, be more *complex* than that of a candle, but it is far from clear how the additional complexity is supposed to generate objective functional *norms*—low-level or otherwise.

A wide variety of teleological norms are compatible with the causal, dispositional, and nomic characterizations of complex systems. Self-maintenance is just one of these. It is more "intuitive" than, say, self-destruction; ascribing the latter goal would require us to see systems that exhibit a high degree of self-maintenance as failing rather badly most of the time. This consequence appears awkward, but it must be tolerated if we are to hold on to the principle that the reality of a norm is compatible with *any* degree of failure to satisfy it. Giving up this principle requires stating and motivating a nonarbitrary lower-bound of failure, beyond which an ascription of a norm is simply false. Pending such an account, the interactivist solution on which Seibt relies is in danger of simply *assuming* that the bacterium has an objective goal of self-maintenance, thus giving us at best the *appearance* of teleology—just another "as if" description—a consequence that Seibt explicitly sought to avoid. For those who harbor deep suspicions about the objectivity of teleological description, this may well be a relief. But a theorist seeking to bridge the gap between facts and norms will worry that the account seems to be stuck, in the end, entirely within the realm of facts, offering only an appearance of norms.

5. Conclusion

I have focused on six essays, out of a collection of ten. In doing so, I hope to have conveyed a sense of the depth and richness of the discussions contained therein. As they collectively illustrate, Sellars' thought bears on wide range of topics that are at the core of philosophical research today. For this reason, the collection under review will be of interest not only to Sellars scholars, but also to philosophers working in epistemology, philosophy of mind, and the theory of perception. The papers by Michael Williams and Willem deVries, which I did not have space to address in this review, offer illuminating remarks on these topics, and repay close attention. Overall, *Empiricism*, *Perceptual Knowledge, Normativity, and Realism* is immensely rich and rewarding. It serves as a testament to the depth and value of Sellars' contribution to the field and of the fruitful work that it continues to inspire.

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Notes

¹This view is usually attributed to Skinner and Ryle, but I have doubts about both attributions. Ryle's position is more subtle than the traditional interpretation (e.g. Fodor 1975) allows, and Skinner's position seems to me too scattered to warrant such a definite claim.

²I do not mean to suggest that Coates' restricts himself to reflections on his *own* phenomenology. Throughout the essay he mentions psychological research, including studies reported in Luria (1968) that suggest that some people don't have as much mental imagery as others. This empirical input is welcome, as are Coates' later references to blindsight, sensory substitution, and the pathbreaking work of the vision scientists, Milner and Goodale. This is especially important in the context of a discussion of Sellars' work—an area of philosophy where, bizarrely, scientific research hardly ever figures in a substantive way. But Coates does not say whether the studies that Luria discusses, which are by now quite dated, rely exclusively on first-person report, nor whether they have been corroborated by more recent work on mental imagery—e.g., Pylyshyn (2002) or Kosslyn et al. (2006).

³"[O]ne of the goals Sellars has in mind in Parts III and IV of EPM is to argue that being red is conceptually prior to looking red, that is, that it is possible to have a conception of something's being red without having the conception of something's looking red, but not vice versa" (135).

⁴Rosenberg dismisses as "utterly impotent" the "brusque attempts simply to dismiss the philosophical significance of such Sellarsian considerations by relegating phenomenological continuities to the domain of 'mere appearance'." (288) I refer the reader once more to Rosenthal (forthcoming) for an illuminating resolution of these puzzles.

⁵For a book-length development of this strategy, see Cummins (1996).

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