Sellars’s Argument for an Ontology of Absolute Processes
David Landy

Scholars have rejected Wilfrid Sellars’s argument for an ontology of absolute processes on the grounds that it relies on a dubious and dogmatic appeal to the homogeneity of color. Borrowing from Rosenthal’s recent defense, but ultimate rejection of homogeneity, I defend this claim on Sellarsian/Kantian transcendental grounds, and reconstruct the remainder of his argument. I argue that Sellars has good reason to suppose that homogeneity is a necessary condition of any possible experience, including indirect experience of theoretical-explanatory posits, and therefore good reason to hold that Reductive Materialism, as he conceives it, is an untenable account of color. The remainder of his argument aims to answer the question of what the metaphysical relation is between the state of an experiencing subject that we take color to be and the colorless microphysical particles that we take to constitute that subject. After rejecting Substance Dualism, Epiphenomenalism, and Wholistic or Emergent Materialism as explanatorily inadequate, Sellars proposes that both color-states and micro-physical particles should be understood as manifestations of an underlying ontology on absolute processes.
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1. Sellars’s argument for an ontology of absolute processes

It is easy enough to read, understand, and appreciate a great deal of Sellars’s philosophical system without ever encountering his thesis that an adequate representation of the ontology of the world will be one that represents it as consisting of absolute processes. In a philosopher infamous for his obscurity and impenetrability, this thesis manages to stand out as especially arcane. Nonetheless, once one begins to delve the depths of Sellars’s defense of it, one realizes that there it has been all along, peeking out from behind the curtain in almost every major aspect of Sellars’s work, from his attack on the Myth of the Given in “Empiricism and the Philosophy of Mind” to his critique of Kant in Science and Metaphysics, to his defense of scientific realism throughout his career. There are a great many reasons why this surprisingly ubiquitous aspect of Sellars’s philosophy has not received more attention, but one of them is surely that insofar as scholars have sought to understand Sellars’s arguments in support of this thesis, it has been particularly difficult to find an interpretation of those arguments that makes them at all plausible, mostly owing to Sellars’s appeal to the ultimate homogeneity of color. I.e., Sellars’s dual claims that the original manifest-image concept of color is the concept of something homogeneous—that it is the concept of something every part of which is colored—and that all subsequent reconceptions of color must also share this feature. What I will argue here is that that is because such scholars have overlooked or misconstrued argumentative resources that Sellars has available to him to defend these claims.\(^1\) Specifically, I will argue that Sellars’s narrative-turn-argument proceeds as follows.

We begin by seeing colors as being literal constituents of the world, as substances. The world consists of color-stuffs. When we notice that colors appear to be subjective in a way that precludes this understanding, we (or mythical Jones) transform our concept of color accordingly: from the concept of an objective substance to the concept of a state of the experiencing subject. As the scientific image of persons in the world spreads, though, we come to see subjects themselves as consisting of colorless atoms in the void, and that understanding once again problematizes our concept of color. What, we must ask, is the ontological relation of a state to the substance that is in that state such that the former can genuinely be colored whereas the latter is not? Here Sellars’s narrative turns to argument. First, he argues that reductive materialism, which he understands as amounting to the claim that color simply does not exist, is untenable, at least for anyone who understands the role of color in our mental lives as he does. The “somehow existence” of color is what accounts for the difference between merely thinking some representational content, and ostensibly seeing that content.

It is at this point in his argument that Sellars must rely on his claim about the homogeneity of color. It is that claim that prevents the Reductive Materialist from deploying his or her own account the difference between merely thinking and ostensibly seeing.

\(^1\)I owe a great deal of thanks to an anonymous referee for the Journal for the History of Analytical Philosophy. Despite clear and emphatic warnings from Pedro Amaral and Robert Kraut (two students of Sellars’s at the University of Pittsburgh) among others, in previous iterations of this paper I had attempted to show that Sellars’s argument did not turn on homogeneity at all. It was the insightful and clearly-articulated objections of that referee that lead me to see that my previous interpretation had been smuggling in homogeneity all along. That realization sent me back to researching, and subsequently to developing the paper in its current form.
seeing. For Sellars’s rebuttal of Reductive Materialism to succeed, if that difference consists in the “somehow existence” of color, then there must be something about color, e.g., its homogeneity, that resists its reduction to particulate matter. Borrowing from Rosenthal’s recent paper on this topic, I will argue that Sellars does give an argument for precisely this conclusion. I will also argue that Rosenthal’s own understanding of that argument is mistaken, though, and that it proceeds along broadly Kantian transcendental grounds. As I read him, Sellars argues that homogeneity is a necessary feature of any object of possible experience, manifest or theoretical.

Picking up Sellars’s master argument where it left off, we next find him arguing that the remaining contenders for an account of the relation of color-states to experiencing subjects—Epiphenomenalism, Wholistic or Emergent Materialism, and Substance Dualism—all share what he calls the epiphenomenal form. I.e., they each cast physical substance as a causally closed system to which color-states, whatever they are, are merely appended, without the potential for causal influence. Sellars rejects the epiphenomenal form, and the views that instantiate it, as explanatorily inadequate and therefore unable to provide a tenable resolution to the tension that they are aimed at relieving. Finally, Sellars proposes his ontology of absolute processes as a capable of achieving just this end. Specifically, Sellars argues that what is needed is to cast both states and substances as themselves mere manifestations of some underlying ontological unity. Thus, he proposes one final categorial transformation for our concept of color (and our particulate-substance concepts along with it). Color-states become sensa: distinctly mental processes that interact causally with other, non-mental processes (specifically the processes that are the reality underlying the particulate substance that appears to constitute the central nervous system). With that summary now complete, I now turn to the details of Sellars’s argument and the various objections that have been raised to it.

2. The argument from homogeneity

One thing that is uncontroversial about Sellars’s argument for an ontology of absolute processes is that as he presents it in all its forms it always begins with a narrative about color. As Sellars sees it, our concept of color begins as the concept of a kind of stuff; initially ‘color’ is a substance concept; we take the world to be made of colors.

Thus I shall argue that the phenomena can be saved by supposing our basic concept pertaining to red to have the form of a mass term, the predicative concept is red having the form is an expanse of red. It is most important to note, in view of the systematic grammatical ambiguity of color words, that to make explicit the categorial status of the term ‘red’ in the phrase ‘an expanse of red’, the latter should be reformulated as ‘an expanse of red stuff’, where ‘stuff’ carries with it implications concerning the causal role of determinate portions of stuff in the physical world. (Sellars 1981a, 12)

Now, that is an odd claim, but we need not debate its merits here because what Sellars needs for his story is not the claim that color concepts begin as substance concepts, but only the much weaker claim that our original concept of color is the concept of some objective feature of the world (be it a substance, a property, etc.). That becomes clear when we see the next step of Sellars’s story.

The distinction between seeing and ostensibly seeing is called for by such facts as that one can have an experience which is intrinsically like seeing a physical object when there is no physical object there, and that one can have an experience which is intrinsically like seeing the very redness of a physical object when either no physical

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2Rosenberg (1982) contrasts Sellars’s approach to the original concept of color, which he calls ‘ontic’, with what he calls ‘noetic’ approaches. Noetic approaches take the most fundamental concept of color to be the concept of a mental state, such as looks-red, and hold that the concept of being red is constructed out of this more fundamental one. Of course, much of Sellars’s “Empiricism and the Philosophy of Mind” (Sellars 1956) is occupied with refuting such noetic views, and I will not go into the details of those arguments here.
object is there to be seen, or the redness which one sees is not the very redness of a physical object. (Sellars 1981a, 18)

Whatever our original concept of color, there comes a point when we realize that color is more mind dependent than that original concept allows. So, we change our concept of what color is. That change has two important components, as Sellars understands it. Firstly, we stop representing color as something “out there,” as an objective feature of the world that we experience, and begin to represent it as something “in here,” as a subjective feature of our experience of that world. Secondly, in order to facilitate this first change, we also alter the categorical form of the concept of color. We go from representing color as a substance or a property to representing it as a state of the experiencing subject.

But what is the status of the redness which one sees when it is not the very redness of a physical object? Phenomenologically speaking, the normal status of expanses and volumes of color is to be constituents of physical objects. What are we to say of expanses and volumes of color stuff which are not constituents of physical objects? Here we must bear in mind what I have had to say about the Myth of the Given. Thus, we must not suppose that if the true theory of the status of expanses and volumes of color stuff is one according to which they have categorial status C, then they present themselves phenomenologically as having this status. (Sellars 1981a, 19)

Notice that these dual changes are precisely the changes that are instigated by Sellars’s famous mythical genius Jones in Section XVI of “Empiricism and the Philosophy of Mind” (1956). While it might seem that the story of our concept of color can end with this recategorization, that recategorization itself actually precipitates the central crisis of Sellars’s narrative. That is because as what Sellars famously calls the scientific image marches on, “we are now confronted with the idea that persons have actual parts—micro physical particles.” (Sellars 1981c, 77–78) That is, while it was all well and good to move color from an objective property of the physical world to a subjective property of persons when we were simultaneously thinking of persons as, for example, non-physical substances, once we seek to explain the nature of persons qua objects in the physical world, this position becomes distinctly problematic. States of the perceiver threaten to become states of colorless atoms in the void, and we suddenly find ourselves in need of an account of how color can be a state of a system of colorless atoms. In his Carus Lectures, Sellars presents what he takes to be the logical space of such accounts, and considers and rejects representatives from each of the possible kinds of such accounts. Thus, he defends his ontology of absolute processes via an argument from elimination.

Before considering those accounts and Sellars’s arguments against them, it is worth emphasizing precisely what Jones’s move is and is not. Jones’s reconceptualization of color does not involve the positing of a new theoretical entity. What Jones does is take our concept of color qua the concept of a substance or property of worldly objects and gives that very concept a new categorial form. This fact is important for two reasons. Firstly, because sense impressions (the states of the perceiving subject that Jones introduces) are not newly posited theoretical entities, their ontological status is not yet in question. Jones does not introduce a new kind of substance into our ontology (for example, a new kind of mental substance), but rather reconceptualizes the color that we originally experience as a substance (or property) as being of a different kind, as being a state. Thus, again, the ontological states of color is unquestioned at this point. It may well come into question later, but insofar as we are focusing our attention on this very first move of Jones’s, the ontological status of color remains secured. We originally take color to be an objective feature of the world. Color exists out there. When Jones recategorizes color as a state of the perceiving subject, this move

3Sellars there emphasizes that, “The entities introduced by the theory are states of the perceiving subject, not a class of particulars,” and spends some time explaining why this is important and how it is possible. See especially §61.
alone is not sufficient for undermining that ontological status. Color still exists. It is just that we have changed what we think of color as being. Whereas pre-Jones we think of color’s existence as a matter of there existing some substance or property in the world, post-Jones we think of color’s existence as a matter of there existing some state of the experiencing subject. The notion that color does not exist at all has not yet been introduced (and as we will see farther along, Sellars has some reason to suppose that this notion is a non-starter).

The second important feature of Jones’s recategorization of color that it will be important to note is that what Jones does is to change the categorial form that our representation of color takes. Jones’s doing that, however, presupposes that there is some content of those representations that remains unchanged. That is, there must be something that it is to be a color that remains through this transmogrification if it is to be color that is conceived first as a substance in the world and then as a state of the experiencing subject. This point is particularly important because it is Sellars’s repeated and emphatic insistence that one such feature of color is its homogeneity that has led to the objections to which we will turn in a moment. Before doing so, though, here is Sellars emphasizing the importance of there being some content of our original concept of color that serves as the basis for our subsequent analogical extension of that concept into a different form.

Its being somehow the facing surface of a physical thing is a matter of the fact that in developing a proto-theory to explain the possibility of seeming to see the very redness of a physical object, when no physical object is there to be seen—or if there is, it has no very redness—the only available determinate concept in terms of which to grasp the redness which is somehow present in the experience, is that of redness as a physical stuff, the redness of physical objects in the spatial-temporal-causal order.

The latter concept must serve as the fundamentum from which analogical thinking can form a proto-concept of red which has a new categorial structure. It does this by forming a proto theory in which items which satisfy an axiomatics of shape and color play roles which promise to account for the fact in question.

(Sellars 1981a, 21)

The important question that we will confront in a moment is: what precisely are the “axiomatics of shape and color”? I.e., what is it that Sellars takes to make color what it is, and thus what it is that must be carried over from our original concept of color through Jones’s transfiguration of that concept. Those are questions about the content of the concept color, but before we turn our attention to that, a word is order about the changing form of that (or those) concepts.

Sellars is explicit here that the form of concepts with which he is concerned is their “categorial structure,” and happily Sellars is elsewhere explicit on how he understands categorial form (most notably in his aptly titled, “Towards a Theory of the Categories.”) What Sellars argues there is that while categories have a long history—since at least Aristotle’s equally aptly named, Categories—of being understood as object-level names for distinct metaphysical kinds, we ought to follow Kant in thinking of them as instead being meta-level conceptual sortals. Some examples will help. Consider the statement,

Socrates is a substance.

On its face, that looks like a statement claiming of certain thing, Socrates, that it is of a certain metaphysical kind, a substance. As Sellars sees it, however, the underlying grammar of this statement is more perspicuously represented as,

'Socrates-s are subject terms.4

4Just as single-quotes are used to refer to the typographical symbol between them—e.g., ‘dog’ has three letters—dot-quotes as Sellars uses them serve to refer to the function played by the word between them and any other functionally equivalent (or relevantly similar) word—e.g., both ‘Socrates’ in English and ‘Sokrates’ in Greek are -Socrates-s.
That is, as Sellars sees it, to call Socrates a substance is to express at the object level, the meta-level claim that the word (or its functional equivalents) ‘Socrates’ is a subject term (as opposed to a predicate term, for example). Similarly,

Yellow is a property,

becomes

·Yellow·s are predicates.

To classify yellow as a property is the object-level way of expressing the meta-level claim that the term ‘yellow’ is a predicate term. As I mentioned earlier, Sellars finds the roots of this suggestion in Kant, and looking at what Kant does with his version of this claim can help us to understand what Sellars is up to. For example, in the First Analogy Kant argues that substance can never be created or destroyed (for reasons that need not concern us here).⁵ What that claim amounts to for Kant is that should we discover that what we had been representing as a substance can be created or destroyed, we ought to reconceive that representation as being a representation of a mere mode of some other underlying substance. Again, an example will help. Consider elephants. One might have thought that elephants are parts of the ultimate furniture of the universe. At least some of the substances that exist are elephant substances. But we badly discover that elephants can be destroyed. They die, they rot away, etc. If Kant is right that substances can never be created or destroyed, then it follows that upon discovering the destruction of elephants, we should conclude that elephants are not substances. So what are they? Well, what Kant’s recommendation amounts to is that we reconceive elephants as alterations of some underlying substance, for example, of atoms arranged elephant-wise. Another way to put that conclusion, however, as Sellars and Kant see it, is to say that we ought to change the role of ‘elephant’ in our language from a subject term to a predicate term. Instead of representing the world as consisting of elephants by using ‘elephant’ as a name for a substance, we represent it as containing atoms arranged elephant-wise by predicing ‘elephant’ (or ‘arranged-elephantine-ly’) of ‘atoms’. That change is what Sellars has in mind when he portrays Jones as reconceiving color as a state of the experiencing subject. We go from using ‘color’ as a subject term for a substance in the world to using it as a predicate term that applies to certain experiencing subjects. Instead of making judgments such as, ‘there is some red stuff over there’, we instead make judgments of the form, ‘Smith is in a red mental state’, or ‘Smith perceives redly’.

For that change of categorial form to be a change of the concept color, however, at least some substantial portion of the content of that concept must remain. In the above example, changing our concept of elephants from a substance concept to a predicate concept kept fixed the axiomatics of elephant shapes. We originally conceive of things of that shape as fundamental substances, using ‘elephant’ as a subject term. We later reconceive of things of that shape as a conglomeration of more fundamental substances, atoms, and so change the categorial form of ‘elephant’ to that of a predicate, ‘elephantine’. So, to fully understand the transformation that Jones instigates in our concept of color, we need to understand what the content-constituting axiomatics of color are.

As I indicated earlier, it is in his articulation of these axiomatics that critics take themselves to discover an illicit move in Sellars’s argument for an ontology of absolute processes. Specifically, Sellars certainly does take one of the axiomatics of the concept of color to be that colors are homogeneous: every part of something colored is also colored. And it does sometimes appear as though Sellars’s argument moves from that property of color to processes via the claim that only an ontology of absolute processes can account for “ultimate homogeneity.” Here’s a quick and dirty version of that argument.

⁵But which have concerned me elsewhere; compare Landy (2015a).
1. We originally conceive of colors as homogeneous stuffs in the world.
2. In reconceiving colors as states of perceiving subjects, we must keep the content of color concepts fixed, while changing their categorial form.
3. Thus, we must conceive states of the perceiving subject as homogeneous. (1, 2)
4. If the perceiving subject is itself composed of discrete atoms in the void, it would not be homogeneous.
5. Thus, we cannot conceive of the perceiving subject as composed of atoms in the void. (3, 4)
6. (Only) absolute processes are homogeneous.
7. We can (or must) conceive of the subject as an absolute process.

Of course, Sellars’s argument does not proceed as quickly or dirtily as this reconstruction portrays it. In fact, as Rosenberg notes, the version of the argument that Sellars makes in the Carus Lectures (Sellars 1981, b, c) does not even make mention of homogeneity at all (although as Rosenberg also notes, it is implicit there nonetheless). What is his argument, then? Well, the easiest way to answer that question is to focus on the structure of the argument that Sellars does give in the lectures. As I anticipated earlier, at its broadest, it is an argument from elimination, with various accounts competing to explain the relation of color-like states of the perceiving subject to the colorless substances (atoms in the void) that purportedly constitute that subject. Thus, in order to understand Sellars’s argument, it is crucial that we first understand the problem it is that Sellars takes that argument to be aimed at solving. That problem can be put relatively succinctly in the form the question: what is the metaphysical relation between a state and the substance in that state. The first proposal that Sellars considers for accounting for that relation is Reductive Materialism, and it is in responding to Reductive Materialism that Sellars makes his infamous appeal to homogeneity.

3. Reductive Materialism

In fact, though, as Sellars sees it, Reductive Materialism is not really an answer to his question at all, but rather a denial that the question even so much arises with respect to color. The Reductive Materialist denies that Jones’s recategorization of color is appropriate in the first place because he or she holds that there is no color, not in the world, and not in the mind. As Sellars presents it, Reductive Materialism is the following thesis.

According to it a person is a complex system of micro-physical particles, and what really goes on when a person senses a cube of pinkly consists in this system of micro-physical particles being in a complex physical state. (Sellars 1981, §79)

Whereas Jones recategorizes ‘color’ as the concept of a state of the perceiving subject, and then Sellars puzzles over what the relation of that state to the subject is, the Reductive Materialist simply denies that distinction altogether. For the Reductive Materialist being a “state” of a complex system of micro-physical particles is reducible to being a complex system of micro-physical particles. There is no metaphysical “relation” to explicate here because the relation is a straightforward identity.

The trouble with this view, as Sellars sees it, stems from the fact that if one identifies colors with complex systems of micro-physical particles, because micro-physical particles are themselves colorless, this amounts to a denial of the reality of anything corresponding to our original color concept. That is, this

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6“The ultimate homogeneity” of a quantum of color (-stuff) is precisely the paradigm of an aspect of the ‘content’ of an ur-conceptualized color quantum which must be invariantly carried over in successive theoretical transpositions of that item or entity (to speak in neutral, transcendental terms) from one categorial ‘form’ to another.” (Rosenberg 1982, 327–28)

7Or, as the Reductive Materialist, rather than Sellars, would put it, that color is reducible to some suitable arrangement of colorless particles.
does not count as a *recategorization* of the concept ‘color’, but instead is a denial that there *is* any color at all. Of course, that denial alone is not sufficient to render Reductive Materialism untenable—maybe colors just don’t exist—but it is not clear exactly what Sellars’s grounds are for resisting it, in part because what he does say in the Carus Lectures is the following.

Obviously there are volumes of pink. No inventory of what there is can meaningfully deny that fact. What is at stake is their status and function in the scheme of things. *(Sellars 1981c, 73)*

*Prima facie*, that looks a lot like Sellars begging the question against the Reductive Materialist: there does not look to be any argument in support of his claim that “no inventory of what there is can meaningfully deny” that there are volumes of pink. He appears to take for granted that Jones’s recategorization is the only viable option available and that there is some deep incoherence or meaninglessness of Reductive Materialism. All of this is supposed to be simply “obvious”. Were that the entirety of Sellars position, that would be deeply unsatisfying. ⁸ Happily, it is not.

To see what is really going on here will require that we track Sellars’s thinking back through material that is unfortunately excluded from the Carus Lectures, which omission thus makes it look as though Sellars is begging the question. To begin that process, consider first that while the thesis above concerning the untenability of Reductive Materialism is not in fact obvious, Sellars does it take to follow from a different thesis, which *is*, arguably, obvious. Namely, he takes it follow from the fact that there is a phenomenological difference between merely thinking something to be the case and ostensibly perceiving it to be the case. Let me explain.

Firstly, recall that for Sellars the representational content of any piece of thinking is constituted by the inferential role that that piece of thinking plays, by the rules that govern its use in drawing inferences. ⁹ Thus, to think, ‘the book over there is red’ is, for example, to commit oneself to not thinking that the book over there is blue, or to thinking that the object over there has pages, etc. (This is part and parcel of Sellars’s interpretation of the meaning rubric as presenting, not a word-world relation, but rather an identity between the functional roles of the terms mentioned therein.) So, for Sellars, representational content is constituted by the inferential role played by some linguistic or mental token. Perceptions have representational content, and Sellars (in)famously accepts the consequence that the representational content of a perception is constituted in the same way as other representational content: by its inferential role. So, what one thinks when one *perceives* that there is a red book over there is the very same thing that one thinks when one, for example, *infers* that there is a red book over there because Max said so.

Of course, Sellars also admits that there is an essential difference between merely thinking that there is a red book over there (because Max said so) and *seeing* that there is a red book over there. He holds, however, that this difference is not a difference in what one thinks in each case, but only in how one thinks it.

Perhaps what we should do is to recognize that the propositional act, the thinking, the internal occurrence of the sentence ‘there

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⁸Dennett, for example, has exactly this reaction to Sellars’s claim of obviousness in his contemporaneously published reaction to the Carus Lectures:

*I guess I must grit my teeth and disagree with this proclamation of the obvious. It is seldom obvious what is obvious, and this strikes me as a prime case of a dubiously obvious claim. “Obviously there are volumes of pink.” Well, in one sense, of course. I can take that particular volume of pink ice and stick it back in the refrigerator; in this obvious sense, the volume of pink goes right on existing in the dark. Here “pink” does not mean “occurrent pink.” When we restrict our attention to “occurrent pink” it is far from obvious to me (sullied as my mind is by theoretical partisanship) that there are volumes of pink.* *(Dennett 1981, 104)*

⁹As Sellars uses it, ‘thinking’ classifies a representation as conceptual; the representational content of non-conceptual representation, such as it is, is not constituted inferentially.
is a red book over there’ or ‘a book over there which is red on the facing surface’, is of a unique kind. It is a visual thinking. ... over and above its propositional character as the occurrence of a mental sentence, of a mental symbol, the thinking has an additional character by virtue of which it a seeing as contrasted with a mere thinking. It has an additional character by virtue of which it is a seeing. Well ok, as you can see, this is a move that is not incorrect, but it simply classifies the problem rather than answers it.

(Sellars 2015, 144)

Saying more about what that difference is, however, is tricky business. The first-pass answer to that question is that when we perceive (or ostensibly perceive, or even imagine) a pink ice cube, as opposed to merely thinking about a pink ice cube, the pink ice cube is “somewhere present in the thought.” It takes a theoretical-explanatory account to say what this “somehow” amounts to, but in the meantime Sellars does take even this much to imply that if we follow the reductive materialist and deny that anything anywhere in any sense is colored, that would imply losing the distinction between thinking that is perceiving and mere thinking. If what explains the difference between merely thinking and ostensibly perceiving is the “somehow” existence of color, then denying the existence of color amounts to denying the difference between merely thinking and ostensibly perceiving, and Sellars is almost certainly right that denying this latter distinction is obviously untenable.10

Of course, there is a big ‘if’ at the start of the previous sentence, and deciding whether or not to accept the antecedent of that conditional is precisely where the controversial issue of homogeneity makes its implicit appearance in Sellars’s argument. To see this, consider some alternative ways of accounting for the difference between merely thinking and ostensibly perceiving. Sellars’s way of doing so might appear to take it for granted that we do so via an appeal to the intrinsic features of ostensibly perceiving, but there have certainly been philosophers who have balked at that approach. Contemporary disjunctivists, for example, hold that the difference between modes of thinking is the relation that each bears, or fails to bear in cases of non-veridical perception, to some worldly object. Similarly, Dennett, in his contemporaneously published comments on the Carus Lectures suggests that the difference is merely etiological.11 Alternatively,

10 As Sellars frames the problem, Reductive Materialism is, “no longer a recategorization of the original entity, an unproblematic cube of pink, but a recategorization of a supposedly postulated entity, a sense impression of a cube of pink” (Sellars 1981c, 79). As I emphasized earlier, Jones does not postulate a theoretical entity to explain color perception; rather he recategorizes something that is straightforwardly observable: colors. So, in treating colors as dispensable, the Reductive Materialist either attempts to deny something obvious—that we observe a difference between mere thinking and ostensibly seeing, the somehow existence of color—or misunderstands the nature of that difference—as a merely theoretical or postulated one. As we will see in a moment, while there might be something to Sellars’s line here, it will take more work than just this to make it plausible.

11 In fact, in an interesting twist to note 8, a single page after puzzling over Sellars’s apparently dogmatic claim that one cannot deny the somehow existence of pink, Dennett himself cites the motivation for this claim as being precisely the one that I have suggested.

The undeniable appeal of introducing sensing-pinkly and its kin is that it responds to our conviction that there is a manifest difference between merely believing-to-be-pink and seeing-as-pink. The latter is sensuous in a way the former is not.

(Dennett 1981, 105)

Of course, Dennett disagrees with Sellars that this is the only, or best, way of accounting for this difference, but at least he recognizes, if one page later than he might have, that Sellars does provide reasons for holding it, and even reasons for its being obvious. For what it is worth, Dennett’s own argument against Sellars in that piece is far from clear. It consists of a series of rhetorical questions probing the when and how of our epistemological access to the somehow presence of pink. Dennett draws from these questions the conclusion that the difference between merely thinking of a pink ice cube and seeing a pink ice cube is not primarily one that is infallibly introspectively available, but is rather the object of empirical psychological theory, and thus not obvious. Again, though, I think Dennett mislocates what is supposed to be obvious here. It takes the explanatory theorizing of the genius Jones to introduce the concept of sense impressions into the conceptual repertoire of our Rylean ancestors, and to train them to use it to (fallibly) introspect. So, the occurrence of sense impressions is not intended to be either obvious or infallible. What is supposed to be obvious
even if one finds it plausible that this difference must be accounted for by features intrinsic to perception, one can certainly resist Sellars’s claims that such intrinsic features can plausibly be described as the “somehow existence” of color, or that an adequate theory that casts sensation as nothing more than colorless atoms in the void might not nonetheless include some distinctive arrangement of such atoms that would itself account for this difference.

All of which is to say that while Sellars’s first move in defending the obvious falsity of Reductive Materialism is to appeal to the obvious fact of a difference between merely thinking and ostensibly perceiving, this cannot be the only move in his argument. What Sellars needs is a further set of premises that show that this difference itself must be explained by an appeal to the “somehow existence” of color in ostensible perception. As it turns out, Sellars does make such an argument, and that argument turns on the necessity of representing manifest-image objects, and sense impressions in turn, as homogeneous. As we will see in the next section, what Sellars argues is precisely that it is because we must represent manifest-image objects and sense impressions as homogeneous, that both of the theses that constitute Reductive Materialism must be false. Not only are colors qua states of the experiencing subject not merely colorless atoms in the void, but neither are physical objects.

Establishing Sellars’s argument for that radical thesis, however, is still some ways off. For the moment, the next item on our agenda will be to examine the precise role of homogeneity in Sellars’s defense against Reductive Materialism. As noted earlier, scholars have taken Sellars to be committed to two controversial theses regarding homogeneity. The first is that our original representations of colors represent them as homogeneous; the second is that this alleged feature of our original color concepts must be preserved through all categorial transformations of those concepts. In the following section, I begin with the objections to these theses, and then turn to their defense.

4. In defense of homogeneity

Two early proponents of the aforementioned forms of objections are C. A. Hooker and James McGilvray, and their presentations of these objections will be of particular use here because they frame two of the most important aspects of such objections.12 The first is Sellars’s entitlement to the claim that colors are originally and essentially represented as homogeneous. Here is Hooker.

When I turn my mind in upon my own conceptual scheme—to parody Hume’s analytical methodology—I do not find here any such concepts of simple, homogeneous properties. What I do find instead is a yawning gap bespeaking ignorance as to the true natures of these properties. To put the point critically: how does or could ostensive acquaintance of secondary qualities help to decide such an issue? We see for example, colour expanses, coloured objects, colour volumes, colour synthesis and analysis and so on. Does this help to determine whether we see other properties

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12 Johanna Seibt, an authority on all things Sellars and process related, takes these two forms of objections to be decisive, and so presents her own version of Sellars’s argument that does away with his claims about homogeneity (Seibt 2015, 208).
disguised as colours at a collective level? I think not. To the contrary, the latter group of experiences all point to the complexity of colours. It seems rather common in everyday life to leap from

I do not explicitly experience X as ϕ.

to

I experience X as not-ϕ.

Perhaps this explains how many people (Sellars qua common man, included?) have arrived at the idea that secondary qualities are simple and homogeneous. For it is true that we do not explicitly experience them as reducible complex collective properties. But the transition from thence to the conclusion that they are not complex collective properties is notoriously unjustified. (Hooker /one/taboldstyle/nine/taboldstyle/seven/taboldstyle/seven/taboldstyle/three/taboldstyle/four/taboldstyle/one/taboldstyle)

Hooker is willing to concede to Sellars that we do not experience color as reducible and complex, but rightly points out that this alone is insufficient to establish that we do experience them as homogeneous and simple. Of course, Sellars does not infer the homogeneity and simplicity of color in this way—he is explicit that the homogeneity and simplicity of colors are axiomatic—but this invalid inference is Hooker’s best attempt at being charitable to Sellars’s argument as he understands it, and it is enough to call our attention to the apparent lack of support that Sellars offers for this seemingly non-trivial claim.

McGilvray on the other hand recognizes that Sellars takes homogeneity and simplicity to be part of the axiomatics of our concept of color, but calls into question Sellars grounds for doing so.

Is the sensum in some sense homogeneous? Sellars seems to insist that it is: ‘is homogeneous’ is treated as predicative (a notion explained in more detail later), perhaps (Sellars does not tell us) in the same way as ‘is pink’ (‘pinks’) is treated as predicative. Because ‘is homogeneous’ is treated as predicative, there must be something homogeneous, just as there must be something which is pink (in some sense). ’Pure processes’ themselves (or pure process itself?), not based upon particles or things, are the candidates.

(Mcilvray 1983, 246)

As McGilvray sees it, Sellars’s original sin in this argument is not so much his commitment to homogeneity, but rather his commitment to the ontological-cum-grammatical status of homogeneity. As he puts it, if homogeneity must be treated as a predicate, then there must be something homogeneous, and thus Sellars appears to earn himself the reality of color, and in turn, perhaps even the reality of pure processes. As McGilvray points out, however, there are alternatives to this understanding of homogeneity.

Whatever the precise status of homogeneity, it is clear that Sellars insists that in some sense there is something which ‘really is’ homogeneous. This is part of what I mean by saying that homogeneity is ‘predicative’. More than that, to say that homogeneity is predicative is to make a grammatical point: ‘homogeneous’, whatever its status-to-be, is like ‘pink’ and unlike (e.g.) a manner adverbial. The difficulty I see is that in the relevant contexts ‘homogeneous’ (with regard to homogeneity of color) is better treated as a manner adverbial, and I suspect too that we need not accept the ‘metaphysical’ aspect of predicativity, that something (processes, pure process itself) ‘is’ homogeneous. Prima facie evidence does not count for much in the heady atmosphere of metaphysics, but it serves as a starting point. Sensa might be homogeneously red, not both homogeneous and red.

(Mcilvray 1983, 249)

McGilvray’s point is that if one can understand the homogeneity of color adverbially rather than adjectivally, then one need not be committed to anything’s being homogeneous. For example, if one claims that a certain avocado is fresh, one is committed to there existing something fresh: that avocado. If, however, one claims that a certain bench is freshly painted, one is not similarly committed to there existing anything that is fresh. The upshot for McGilvray is that if one can cast homogeneity as an adverb instead of an adjective, then Sellars’s inference from the homogeneity of color to the existence of absolute processes on the grounds that only absolute processes are homogeneous, would be invalid. It would be open to a rival metaphysician-cum-grammarmian to propose an alternative such as, for example, particulate substances move homogeneously, and to hold that
the homogeneity of color owes to this homogeneous movement of colorless particles. Such a thesis would appear to preserve the ultimate homogeneity of color without committing to there being some thing that is homogeneous.\footnote{Aimed as it is at the Reductive Materialist, Sellars’s argument ought to be concerned with undermining something almost identical to this alternative. So while McGilvray offers real insight into the structure of the difficulty that Sellars faces here, what he misses is Sellars’s attempt to meet that difficulty head on!}

Returning to Hooker, we also find him raising a second objection Sellars’s argument: even were we to grant that our original concept of color is a concept of something homogeneous, it does not follow that this homogeneity must be preserved in all future manifestations of that concept.

Even granting that Sellars’s characterisation of the Manifest Image is acceptable, why would it be necessary to preserve the simplicity and homogeneity of the Manifest Image concepts? That is, why is Sellars justified in construing his Principle of Framework Adequacy so widely? Sellars main argument for his principle seems to be this: if $S'$ is to be an adequate successor conceptual framework to $S$ then $S'$ must be capable of explaining all the phenomena describable in $S$; but $S'$ will not be capable of this unless it is able to reconstruct within its resources the same logical structures as occur in $S$. Sellars does not construe explanation between successor frameworks as a deduction of $S$ from $S'$. He recognises that this will not do as a model even for applications within science (for example, from classical mechanics to relativity theory), let alone for science. Rather he construes it as a derivation in $S'$ of why $S$’s descriptions, observational and theoretical, are as accurate as they are (and, if $S'$ is a truly comprehensive scheme, of why $S$’s descriptions are as inaccurate as they are). Nonetheless this still requires reference to $S$’s conceptual structure. (Hooker 1977, 343)

Whereas Hooker’s first objection was to the notion of taking homogeneity as a feature of our original concept of color, his objection here is that even putting that point aside, it does not follow, and Sellars does not appear to offer an argument, that homogeneity is an axiomatic or essential feature of that concept. For example, it might be that while we originally conceive of color as a homogeneous substance, in reconceiving it as a state of the perceiver, we also come to think of it as heterogeneous, perhaps exactly because we do not think of perceivers as themselves being homogeneous.

More recently, David Rosenthal (2015) has added what I take to be both a robust charitable defense of both of these claims of Sellars’s—that homogeneity is an original feature of our concept of color, and that it is an essential feature of that concept—that presents some of Sellars’s own reasons in support of them, but also an argument for rejecting Sellars’s conclusion that homogeneity is incompatible with a sense impression’s actually being a non-homogeneous particulate neural state. As Rosenthal sees it, Sellars is correct to hold that homogeneity is an intrinsic and essential feature of the conscious perception of color, but a mental state’s being conscious owes to its structure, not its intrinsic features, and so it might well turn out that these states are intrinsically non-homogeneous. The details of both Rosenthal’s defense of Sellars’s claims and his argument against them are well worth delving into because I hope to show that each offers an important clue in its own way to seeing our way clear to Sellars’s actual and most tenable position. Specifically, what I hope to show is that the argument that Rosenthal offers on Sellars’s behalf is a good one, except that Rosenthal understands its scope as being narrower than it is. When we supplement Rosenthal’s argument with Sellars’s transcendental realism, it turns out that homogeneity is a necessary feature of any and all objects of possible experience, including the sense impressions that are represented by Jones’s theoretical-explanatory framework.

We can begin our investigation of Rosenthal’s defense of homogeneity by returning to that very explanatory framework itself. What genius Jones aims to explain is our conceptual responses to certain worldly stimuli.
[T]he aim is to explain the correlation of the conceptual representations in question with those features of the objects of perception which, on occasion, both make them true and are responsible for bringing them about. (Sellars 1967, §43)

The explanation that Jones gives is that there are certain states of the perceiver, sense impressions, which are the causal intermediaries between these objects and our conceptual representations. For example, there is some such sense impression that makes it the case that we respond with ‘red’ to both red objects seen in daylight and to white objects seen in red light. As Sellars understands this explanation, though, it is not enough just to say that there is some such state, but one must also say what it is about such states that allow them to play this specific role. And, of course, Jones does just this. He models sense impressions on our conceptually-prior understanding of the color of physical objects.

For even in normal cases there is the genuine question, “Why does the perceiver conceptually represent a red (blue, etc.) rectangular (circular, etc.) object in the presence of an object having these qualities?” The answer would seem to require that all the possible ways in which conceptual representations of colour and shape can resemble and differ correspond to ways in which their immediate non-conceptual occasions, which must surely be construed as states of the perceiver, can resemble and differ.

Thus, these non-conceptual states must have characteristics which, without being colours, are sufficiently analogous to colour to enable these states to play this guiding role. (Sellars 1967, §§44–45)

Sense impressions of colors are posited as exhibiting a structure that is the mental analogue of the structure that perceptible colors are represented as standing in to one another in our manifest-image representations of objects. It is by supposing that they have such a structure that this posit comes to have the explanatory force that it does. This structure is what Rosenthal calls the quality-space theory (QST).

[The type a token mental quality belongs to is determined by the similarities and differences that token bears to tokens of other mental-quality types in the relevant family. (Rosenthal 2015, 162)

So, for example, a certain state of the perceiver will be a red-sensation just in case it stands in the mental-analogue relation of being between yellow-sensations and orange-sensations. A state of the perceiver will be a triangle-sensation just in case it stands in relations to other shape-sensations that are isomorphic to the relations that triangles stand in to other shapes, etc.

Importantly, what Rosenthal takes to follow from QST is that because such states of the perceiver are strictly analogous to the properties of manifest-image objects as we represent them, certain facts that are true of how those objects are represented will necessarily also be true of sense impressions as represented by QST. Most specifically, Rosenthal finds in Sellars a powerful argument that manifest-image objects are, in some sense, necessarily represented as homogenous, and that because of how QST is constructed, sense impressions must also be so represented. Here is the second part of that argument (which will make the first part clear enough by implication).

Consider then any arbitrary mental part of that mental triangular expanse. Perhaps the mental color quality within the mental triangular expanse varies, so that the mental part will itself be a mental expanse with mental boundaries of contrasting mental colors. But perhaps the mental color quality within the mental triangular expanse is uniform; in that case what demarcates the part are imaginary mental borders of some contrasting color.

In either case, the mental area that constitutes that arbitrary part will itself have to exhibit some mental color quality; otherwise there would simply be no way to fix the mental boundaries of the mental part. The same will hold in turn for any smaller mental part of the
initial mental part. Every mental part of a mental quality of a red
triangle will have to exhibit a mental color quality.

Ultimate homogeneity occurs if every proper part of a mental ex-
panse of a mental color quality itself exhibits some mental color
quality. QST gives us an account of just what it is for a mental
color quality to have parts at all, and it is unlikely that any other
theory will do so. And QST by itself implies ultimate homogeneity
of mental quality qualities. (Rosenthal 2015, 177)

I will call this the boundary argument. It will be helpful here to
have an illustration to make the boundary argument more vivid.
So, consider the image of a triangle below (which is, of course,
of the same type as the model of the QST triangle-sensation).

For this triangle to consist of a homogeneous expanse of color, it
must be that every part of it also consists of an expanse of color.
To test whether this is so, we can select some arbitrary part of it
and examine whether it is an expanse of color. Let’s do that.

To examine a part of the triangle, we need to distinguish that
part from the rest of the triangle. Rosenthal’s point is that the
only way that we can do this is by constructing a boundary, real
or imagined, within the triangle. However, because construct-
ing that boundary requires that we contrast the selected part

with the remainder of the triangle, both the selected part and
the remainder must be colored. Since this will be true of any
arbitrarily-selected part of the triangle, it will be true of all parts
of the triangle, and thus the triangle is homogeneous. Since the
mental analogues of manifest-image colored objects stand in rel-
ations to each other that are isomorphic to the relations that their
manifest-image colored objects stand in to each other (via QST),
it must be that sense impressions are homogeneous as well.

To certain readers the above argument will sound familiar
insofar as it bears a striking resemblance to considerations that
Kant adduces in the Axioms of Intuition and Anticipations of Per-
ception in defense of his theses that, roughly, all objects of pos-
sible experience have both a quantifiable spatiotemporal form
and a qualitative content.15 As I will argue farther along, this
similarity is no mere coincidence, and in fact holds the key to
understanding properly Sellars’s own argument. Putting that
point aside for the moment, however, it is worth noting that
while Rosenthal puts this argument entirely in terms of color
and shape, Kant’s version of the argument is more general, but
equally compelling.16 Kant’s claim is that for any arbitrarily se-
lected object of experience at all, that object can only be repre-
sented as such, by delimiting its spatiotemporal boundaries, and
that doing this requires that the object be represented as having
some quality or another, be it color, sound, resistance to pressure,
etc. Sellars explicitly endorses the same generalized conclusion,
and ties it specifically to homogeneity.

As Berkeley, Kant, and Whitehead, among others, have pointed out,
physical objects cannot have primary qualities only—for structural
and mathematical properties presuppose what might be called

15 Or, as Kant (1781/1787) put it, that “All intuitions are extensive magnitudes” (A162/B202), and “In all appearances the real, which is an object of the
sensation, has intensive magnitude, i.e., a degree” (A165/B207).
16 As P. F. Strawson brings out so brilliantly in the second chapter of Individuals (1959) in which he constructs an auditory model to make the same
point.
Rosenthal is certainly right, then, that Sellars takes himself to follow Kant (and Berkeley and Whitehead) in holding that representing manifest-image objects as well as the sense impressions that are modelled on them requires representing them as having sensible qualities, and therefore as being homogeneous. More on that in a moment, though.

For now, the next task on our agenda is to see why it is that Rosenthal follows Sellars this far, but nonetheless rejects his conclusion that homogeneity is incompatible with a sense impression’s actually being a non-homogeneous particulate neural state. As Rosenthal understands Sellars’s argument, it is an enthymeme, and the premise that Sellars needs to complete the argument is not one that we ought to accept. Specifically, what Rosenthal takes Sellars argument to establish successfully is that our introspective awareness of sense impressions will always be of them as homogeneous.

We are introspectively aware of mental color qualities in respect of the qualitative similarities and differences that constitute the relevant quality space. Introspection represents mental color qualities as ultimately homogeneous because QST does.

Since, however, Rosenthal holds that our introspective awareness of a mental state as having a quality does not guarantee that that mental state really does have that quality, he concludes that some additional premise is needed to move from our mental states’ necessarily appearing to be homogeneous to their actually being homogeneous.

So mental qualities of color are ultimately homogeneous. But the ultimate homogeneity that QST delivers results in no difficulty for a scientific treatment of sense impressions, nor any difficulty for identifying those sense impressions with neural states whose properties exhibit no such ultimate homogeneity.

The difficulty Sellars saw arose only because of an added premise. Sellars held that the relative similarities and differences that determine location in a quality space fix the types of mental quality not in a relative way, but in respect of the intrinsic nature of those mental qualities.

Rosenthal sees room here for an account of sense impressions according to which sense impressions appear as they do to introspection (as homogeneous) because of their structural relations to each other, but also according to which sense impressions themselves are not as they appear, are not intrinsically homogeneous. Rosenthal’s diagnosis of Sellars’s mistake is as surprising as it is damning.
The only consideration that can explain Sellars’s conviction that Jones’s theory determines the intrinsic nature of sense impressions is his assumption that such states always occur consciously.

(Rosenthal 2015, 179)

What Rosenthal suggests is that Sellars mistakenly held that sense impressions must be as they appear because Sellars did not countenance the possibility of non-conscious mental states. Great foe of the Myth of the Given that he is, especially with respect to how our mental states appear to us, it would be shocking to discover Sellars’s lifelong project of properly accounting for the nature of sense impressions was undermined by his rejecting the possibility of a seems/is distinction with respect to those sense impressions on the grounds that they are always consciously perceived. As Rosenthal himself points out, the acceptance of these commitments is utterly disastrous for many of the other parts of Sellars’s philosophical agenda.

And things are arguably worse. If the way we are subjectively aware of qualitative states trumps any other knowledge we could have about them, the way QST taxonomizes mental qualities would be mistaken whenever it departed from the deliverances of subjective awareness. And we cannot count on subjective awareness itself if, as argued earlier, such awareness can misrepresent what mental state one is in.

(Rosenthal 2015, 180)

And things are arguably worse still! Not only would QST itself, the very core of Jones’s explanatory posit, be undermined by the supposition that introspective awareness is infallible, but so would the need for any explanatory hypotheses concerning the mind at all. If we are infallibly aware of the intrinsic nature of all of our mental states, then there can never arise the need to move beyond introspective phenomenology at all. In fact, if we are infallibly aware of the intrinsic nature of all of our mental states, then it turns out that the Myth of the Given is no myth at all. Merely by being in a state of awareness of some mental state, we are thereby aware of it has having whatever categorial status it does.

Suffice it to say, that I agree with Rosenthal that if this is the root of Sellars’s mistake, it is a doozy. As is likely obvious at this point, where I part company with Rosenthal, is in thinking that Sellars makes the mistake of holding that sense impressions must be as they appear to us at all, or that he makes that mistake because he holds that sense impressions are intrinsically conscious. The question, then, is: how does Sellars’s argument in fact proceed?

Before answering that question, it will be worthwhile to take stock of where things stand having made our way through Rosenthal’s interpretation of and objection to Sellars’s argument. In particular, Rosenthal has uncovered what I take to be an essential piece of the interpretive puzzle. Hooker and McGilvray both balked at Sellars’s claims that we necessarily represent, first, manifest-image objects, then sense impressions, as homogeneous. Both found these claims to be unsupported dogmatism. Recall Hooker: “When I turn my mind in upon my own conceptual scheme . . . I do not find here any such concepts of simple, homogeneous properties.” And McGilvray: “Is the sensum in some sense homogeneous? Sellars seems to insist that it is.” What Rosenthal reveals is that Sellars’s claim that manifest-image objects and sense impressions are necessarily represented by us as homogeneous is not a merely dogmatic insistence, but is, in fact, the conclusion of an argument: the boundary argument. We must represent manifest-image objects as homogeneous because answering the question of whether they are homogeneous requires us to represent arbitrarily-selected parts of such objects, and doing that requires that we represent those objects as being homogeneous. Since sense impressions are necessarily represented via structural analogies with our representations of manifest-image objects, they must share this structural feature. It is this final move that also guarantees that any categorial transformation of the concept of color will retain homogeneity as one of the axiomatics of its content. Thus is Hooker’s second objection also met by Rosenthal. So, at least some progress has been made on the question of whether homogeneity is anything
but Sellarsian dogmatism. We now at least have an argument in support of Sellars’s claims, if also an important further objection to that argument.

That progress, however, will be for naught unless Rosenthal’s objection can also be met. How can Sellars defend the claim that our representation of sense impressions as homogeneous corresponds to their actually being homogeneous. As I indicated earlier, I believe that the surprising answer to that question is—to put it so simply as to be utterly mysterious—transcendental idealism.

5. Sellars’s transcendental idealism

To begin to make this answer less surprising and less mysterious, consider first a quote from Rosenthal and then a quote from Kant.

Nor do the quality-space considerations that show mental color qualities to be ultimately homogeneous apply to perceptible physical colors. As with mental color qualities, the visible boundaries of proper parts of colored expanses are determined by contrasts in perceptible colors; so any visible part of such an expanse will itself be colored. But this applies only to proper parts that are visible, and visible expanses of perceptible color always have proper parts too tiny to be visible. Visible color expanses consciously appear to be ultimately homogeneous, but in reality they are not. (Rosenthal 2015, 179)

Rosenthal is willing to grant that the visible color expanses of manifest-image objects appear to be homogeneous, but notes that such objects have parts that are too small to be visible. These expanses, he holds, because they are not visible, might well be non-homogeneous. By contrast, here is Kant’s very quick and snarky reply to Eberhard concerning an objection similar to Rosenthal’s that Eberhard makes to Kant.

Thus, according to the Critique, everything in an appearance is itself still appearance, however far the understanding may resolve it into its parts and demonstrate the actuality of parts which are no longer clearly perceptible to the senses; according to Mr. Eberhard, however, they then immediately cease to be appearances and are the thing itself. (Kant 1790, 210/302)

And here is a passage from the Critique in which Kant makes just the point that he cites to Eberhard.

The postulate for cognizing the actuality of things requires perception, thus sensation of which one is conscious—not immediate perception of the object itself the existence of which is to be cognized, but still its connection with some actual perception in accordance with the analogies of experience, which exhibit all real connection in an experience in general. . . . Thus we cognize the existence of a magnetic matter penetrating all bodies from the perception of attracted iron filings, although an immediate perception of this matter is impossible for us given the constitution of our organs. For in accordance with the laws of sensibility and the context of our perceptions we could also happen upon the immediate empirical intuition of it in an experience if our senses, the crudeness of which does not affect the form of possible experience in general, were finer. Thus wherever perception and whatever is appended to it in accordance with empirical laws reaches, there too reaches our cognition of the existence of things. (Kant 1781/1787, A225–26/B272–73)

Kant’s point in these two passages is that what he has attempted to present in the Critique are the necessary conditions for representing all objects of possible experience. Insofar as the project has been a success, then (to translate Kant’s argument into Sellars’s favored idioms) those conditions are conditions not merely of the representation of manifest-image objects, but also, because theoretical representations are analogical extensions of the representation of such objects, to representations of scientific-image objects as well. Even though we can have no “direct observation” of magnetic matter, the representation of magnetic matter is nonetheless subject to the same conditions as is that on which

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19This answer is surprising, in part, because Sellars himself argues for a version of transcendental realism! More on that in a moment.
we model it. The theoretical representation of magnetic matter does indicate certain aspects of how that matter would appear to an experiencing subject who had sensory organs suitable for experiencing it. And that mode of appearing would, because the necessary conditions that Kant takes himself to discover make no appeal to the contingent constitution of our sensory organs, be subject to those conditions. Or, as Kant puts it in bludgeoning Eberhard, an object’s being smaller does not make it noumenal.

How does this help Sellars? Well, Rosenthal’s objection to Sellars appears to have a form similar to Eberhard’s objection to Kant. Just as Eberhard objects to Kant that objects too small for us to experience might not be subject to the Categories, so Rosenthal objects to Sellars that objects too small for us to see might not be homogeneous. Kant’s response to Eberhard is that because the Categories are the necessary condition for the representation of any object of possible experience, these include objects of theoretical representation. Similarly, if the argument from boundary conditions that Rosenthal himself finds in Sellars can be generalized in the way that I indicated earlier (and indicated that Kant and Sellars themselves, in fact, generalize it), homogeneity will turn out to be a necessary condition on the representation of any object of possible experience, manifest or theoretical. “So what?” one imagines Rosenthal protesting. “We might necessarily represent objects as being homogeneous, but they might nonetheless be non-homogeneous.” To make sense of that objection, however, it must be possible to understand what Rosenthal means when he would protest that objects might be non-homogeneous. If, however, representing an object as homogeneous is a necessary condition of representing an object at all, then understanding Rosenthal becomes impossible.20

But wait! As I mentioned earlier, Sellars is a transcendental realist, not a transcendental idealist, so this line of argumentation would appear to be unavailable to him. One way of framing this line of resistance to Rosenthal would be cast him as mistakenly attempting to apply what are merely our forms of representation (the concept of homogeneity and its complement non-homogeneity) to noumenal objects, or things in themselves. Sellars cannot object to that, though, because he himself advocates for precisely the same thing. So, this defense is a non-starter.

This objection, however, itself misunderstands the form that Sellars’s transcendental realism takes.21 For Sellars, and for Sellars’s Kant, the concept of a noumenal object, and the corresponding thesis of transcendental realism, is essentially contrastive. The concept of a phenomenon is the concept of an object as it is represented using our forms of representation. The concept of a noumenon is the concept of an object as it is represented using a form of representation other than our own. Both Kant and Sellars reject the notion that we can make any sense of the notion of an object apart from all forms of representation whatsoever. For them, an object just is an object of representation. Thus, the issue of transcendental idealism versus transcendental realism, the issue of whether we can cognize noumena, for Kant and Sellars, boils down to the issue of whether we can represent objects using a form of representation other than our own. Sellars argues that we can. That argument is the one with which the entirety of this paper is concerned.22 The form of representation other than our own that Sellars holds we can, and ought to, employ is precisely his ontology of absolute processes. As we will see in the following sections, the conceptual and grammatical structure of representation to conceive of anything actually being non-homogeneous.

20And following Kant, this is not because there is anything contradictory in Rosenthal’s proposal—just as there is nothing contradictory in thinking of, e.g., noumenal causation—but rather because that proposal is incompatible with the necessary conditions of our representative powers. The concept of something non-homogeneous is not incoherent, but it is beyond our power of

21What follows is a version of an argument that I make in Kant’s Inferentialism (Landy 2015b), in the Postscript on Transcendental Idealism.

22A brief confession: in Kant’s Inferentialism (Landy 2015b) I went in search of an argument from Sellars to support his transcendental realism, but came up empty handed. The current paper is meant to correct that oversight.
process thought and talk is an alternative to the Categories and judgmental form of substance and accident.

Back to homogeneity. If the above is right, then Sellars’s transcendental realism consists of his abandonment of an ontology of substance and accident in favor an ontology of absolute processes. What is clear, however, is that Sellars holds—for exactly the reasons that Rosenthal cites—that homogeneity will be a necessary condition for either of those forms of representation. In fact, it is precisely because of the boundary argument that Rosenthal presents (in its more general form) that Sellars holds that we must adopt this new categorial form of thinking. What follows, however, is that if the most general version of the boundary argument is correct, then there is no alternative way to represent objects. And if the conception of noumena that I have portrayed Kant and Sellars as both adopting is correct (another big if!) then talk of objects apart from any form of representing them is untenable. So, if homogeneity is a necessary feature of any possible form representation of objects, then the contrast that Rosenthal seeks to draw between our conception of manifest-image objects and sense impressions and the way each of those is “in itself” disappears. The very notion of a sense impression’s intrinsic

23 An insightful anonymous referee raises the question of whether Sellars does, in fact, hold that all objects of representation, including those of theoretical representation, must be homogeneous, and points out that Sellars repeatedly insists that objects of theoretical representation need not have all or any of the properties that manifest objects do. (The referee cited Sellars (1963), §100, but see also Sellars’s objection to Hesse in Sellars (1977), in especially §24, which is even more explicit, I think.) The key point to see, though, is that in these cases what Sellars is advocating for is our ability to construct theoretical representations of qualities on the basis of their similarity, but not identity, to manifest qualities. Homogeneity, however, is not an object-level quality, but a structural feature of qualities themselves, and if my argument thus far has been sound, then it is a necessary feature of all qualities. That is, while we can represent novel qualities via theoretical representation, and even novel categories such as “process”, there are nonetheless limits to our capacity for novelty, even for Sellars, and I am arguing that homogeneity is one of those.

24 Or, more accurately, the distinction between the way things appear and qualities is itself already subject to the necessary conditions of our forms of representation, and so if homogeneity is one of those conditions, then sense impressions must be homogeneous.

Sellars’s mistake, if he made one, was not in assuming that sense impressions were intrinsically conscious or that we are infallible with respect to our mental states. As we noted, those would be egregious mistakes for Sellars of all people to make indeed. Rather, we can understand Sellars’s claim that sense impressions must be homogeneous as proceeding in two stages. The first consists of the generalized version of Rosenthal’s boundary argument. In order to represent the arbitrarily-selected parts of any object of representation, we must represent that object as having some sensible quality. Since, however, those parts are arbitrarily-selected, we must represent all of the parts of the object as having some sensible quality. Thus, we must represent objects as being homogeneous with respect to some sensible quality. The second stage of the argument consists of a defense of the claim that if representing an object as having some property is a necessary condition of representing objects at all, then that property is an intrinsic property of all objects. Those two theses combined, would earn Sellars his conclusion that sense impressions are necessarily homogeneous.

25 Or as Kant (1781/1787, A277/B233) might rather rudely put it, “If the complaints that ‘we have no insight whatsoever into the intrinsic nature of things’ are supposed to mean that we cannot grasp by pure understanding what the things which appear to us may be in themselves, they are completely unreasonable and stupid. They want us to be able to be acquainted with things without senses, consequently they would have it that we have a faculty of cognition entirely distinct from the human.”

26 Objection: if it is a necessary condition of representing objects that we represent them as homogeneous, then could we not skip over all the wrangling over sense impressions and reject out of hand the scientific-image representation of the world as consisting of particulate matter? Answer: while conceiving of the physical world as consisting of absolute processes might help avoid having to deal with the epiphenomenal form detailed in the next section,
Dialectically speaking, then, the generalized version of Rosenthal’s boundary argument relieves the pressure on Sellars’s homogeneity theses. At the same time, that pressure is distinctly relocated to his and Kant’s claims about the nature of transcendental philosophy. Now, some might see that dialectical shift as so much the worse for Sellars insofar as the latter claims appear significantly less plausible than the homogeneity theses! That discussion, however, is best left for another occasion. The point here is merely that Sellars’s homogeneity theses are neither unsupported dogmatism (as Hooker and McGilvray understand them) nor the result of a glaring error that undermines much of his own philosophical system (as Rosenthal understands them). Rather, they are the conclusions of a piece of transcendental philosophy that reflects the necessary conditions of our human form of representation, which transcendental philosophy can be reasonably challenged and defended in its own right. With at least that much dialectic progress now made, we can return to the Carus Lectures to pick up the argumentative thread where we previously left it behind: with the rejection of Reductive Materialism.

6. Epiphenomenal form

Having thus dismissed Reductive Materialism, Sellars turns his attention to what he sees as the three other possible forms of position for accounting for the relation between the “states” of the perceiver, which involve the somehow existence of color, and the perceiver itself. All three of these possible positions—Substantial Dualism, Emergent or Wholistic Materialism, and Epiphenomenalism—embody what Sellars will call the epiphenomenal form, and the easiest way to present Sellars’s framing of these three positions will be to in terms of that form. So, here is Sellars doing just that for the first of these two accounts.

\[
\psi_i \quad \psi_i \quad \psi_i \\
\uparrow \quad \uparrow \quad \uparrow \\
\Rightarrow \psi_i \Rightarrow \psi_i \Rightarrow \psi_i
\]

For the substantial dualist, the ‘\(\psi\)’s would represent states of the CNS [central nervous system], the ‘\(\psi\)’s would represent states of the sensorium. For the wholistic materialist, the ‘\(\psi\)’s would represent physical-2 states of the CNS; the ‘\(\psi\)’s proper sensible states (physical, but not physical-2) of the CNS. The diagram is the same; only the ontology is different. (Sellars 1981c, 84)²⁷

Recall that all three of these accounts are aimed at explaining what the relation is between a “state” of an experience subject and that subject itself in the face of the fact that the experiencing subject consists of nothing other than a complex of colorless micro-physical particles whereas the state constitutes the somehow existence of color. I.e., the goal of these accounts is to articulate what states and perceivers are such that color can exist as a state of a colorless perceiver. Substance Dualism answers that challenge by casting the color state as being, not a state of the physical complex of the perceiver at all, but as a state of a non-physical substance (Sellars 1981c, 78). Emergent or Wholistic Materialism rejects the postulation of a non-physical substance, and instead casts color-states as “emergent” states, correlated with but not reducible to, the complex physical system that it continues to take the perceiver to be (Sellars 1981c, 80–81). Epiphenomenalism, as Sellars presents it, is distinct from both of these positions insofar as it proposes yet another recategorization of our concept of color, this time from that of a state of

²⁷More on what Sellars means by ‘physical-2’ below.
the perceiving subject to the concept of a non-physical particular in its own right (Sellars 1981c, 80–81).

As Sellars understands them, each of these accounts can be pictured by the diagram above insofar as they agree in taking the complex physical states of the perceiving subject (the $\phi$s) to be governed by natural laws that are articulable entirely independently of the color-states (the $\psi$s), however we conceive of them, that correlate with them.

The idea is that the occurrence of a $\phi$-state is adequately explained by the occurrence of another, preceding $\phi$-state, no reference to the associated $\psi$-object being necessary. Thus the only nomologicals to which (in principle) appeal need be made are laws formulated in terms of $\phi$-states. . . . from the standpoint of explanation, the basic role is being played by the $\phi$-states. For, (a) the $\phi$-state laws are autonomous, i.e., stand on their own feet; (b) the $\psi$-object sequences are themselves explained in terms of $\phi$-state laws and $\phi$–$\psi$ laws of supervenience. (Sellars 1981c, 83)

To explain the behavior of the subject qua complex physical system, one need appeal to only physical laws. The color-states of the perceiver are then correlated with certain physical states, but stand over and above them, neither causing any subsequent changes in the physical states, nor themselves explainable in terms of those states. Substance Dualism posits an entirely distinct non-physical substance that runs its course alongside the physical world, but never interacts with it. Color-states are states of that substance. Epiphenomenalism casts colors states as a system of non-physical particulars, thus eliminating the need for an account of the metaphysics of “states”, but likewise casts the behavior these particulars as mysteriously correlating with the behavior of physical particulars, although never interacting with them. Finally, Emergent or Wholistic Materialism denies that there are any substances or particulars that exist other than physical ones, and so casts color-states as correlated with, but irreducible to physical states. The cost there is leaving the metaphysical relation of states to the substances of which they are states similarly mysterious. Natural laws govern the behavior of the physical particles; color-states correlate to complex arrangements of these particles, but nothing more can be said regarding in what this correlation consists or why it occurs.

Of course, it is precisely such mysterious correlations that Sellars takes to be the downfall of each of these accounts. The very purpose of these accounts was supposed to be to explain the relation between color-states and the perceiving subject. In all three cases, this relation is reified, but not explained at all. As Sellars sees it, this is no accident. The root of the problem here is the category dualism that Jones first initiates. The metaphysical schism between states and substances makes it in-principle impossible to formulate a causally-closed and explanatorily-complete account of our experience of the world. What is necessary to achieve that end (of both science and philosophy) is a return to a categorically monistic account of color experience. Thus does Sellars propose an ontology of absolute processes.

To evaluate that proposal, we can begin with a word about what it means to adopt an ontology of absolute processes. We earlier noted that Sellars conceives of what look to be object-level names of distinct metaphysical kinds (e.g., substance, property) as actually functioning as meta-level conceptual sortals (singular terms, predicates). The same is true of absolute processes.

Broad introduces the concept of what he calls ‘absolute processes’—which might also be called subjectless (or objectless) events. These are processes, the occurrence of which is, in the first instance, expressed by sentences like ‘it is raining,’ ‘it is thundering,’ ‘it is lightning’, i.e., which either do not have logical subjects or which have dummy logical subject Idots which do not have the form $SVs$, e.g., Socrates runs nor can plausible paraphrases which have genuine logical subjects be found. (Sellars 1981b, 48)

An absolute process is the object-level reflection of a meta-level conceptual sortal that includes in its scope those object-level sen-
tences that either have no subject, or have only a dummy subject. ‘It is raining’ is the paradigm example. Thus, just as a world that is pictured (in the Sellarsian way) by subject-predicate sentences is thereby pictured as consisting of distinct objects (named by subject terms) standing in nomological relations to one another (corresponding to the inferential relations licensed by predicate terms; see Sellars 1948), so the world that is pictured by sentences with no logical subjects is thereby pictured as a world without objects, as consisting of only the temporal unfolding of absolute processes.

Supposing that makes some sense, the next thing to notice about Sellars’s proposal is that if all that the move to a process ontology achieved was to cast color-states as processes, that alone would just get us back to the epiphenomenalist form.

\[
\begin{align*}
\text{Sensorium processes} & : \psi_i \psi_i \psi_i \\
\text{Material bodies} & \rightarrow \phi_i \rightarrow \phi_i \rightarrow \phi_i
\end{align*}
\]

That picture would still demand an explanation of how sensorium processes relate to material body processes, and while the prospects for such an explanation might look a little less dim, the work of providing that explanation would still be a good way off, and not much real ground will have been gained over the accounts just considered. The real benefit of adopting an ontology of absolute processes as Sellars sees it stems from the capacity of that ontology to conceive of both physical and sensory states as being logical constructions of, or mere limitations on, pure processes.

Important terminological note before continuing: Sellars distinguishes between physical\(_1\) and physical\(_2\) states (and objects, processes, etc.). Roughly, a physical\(_1\) state is any state that is part of the causal structure of the world, whereas a physical\(_2\) state is a physical\(_1\) state and is also the kind of state that could exist independently of the existence of sensory states. So, all of the states in which a rock or tree can be are (presumably) both physical\(_1\) and physical\(_2\). Perceiving subjects, on the other hand, can be in both physical\(_2\) as well as merely physical\(_1\) states. I.e., perceiving subjects can be in states that are part of the causal structure of the world (physical\(_1\)) but are not “merely” material (physical\(_2\)).

With that idiom duly noted, here is Sellars presenting the aforementioned explanatory advantage that accrues to his ontology of absolute processes.

If the particles of microphysics are patterns of actual and counterfactual \(\phi_2\)-ings, then the categorial (indeed, transcendental) dualism which gives aid and comfort to epiphenomenalism simply vanishes.

And once this picture has gone, they would be in a position to realize that the idea that basic ‘psycho-physical’ laws have an epiphenomenalist form is a speculative scientific hypotheses which largely rests on metaphyscial considerations of the kinds we have been exploring. (Sellars 1981c, 86)

Here we see important aspects of Sellars’s Kant-style scientific realism at play. What he envisions for an ontology of absolute processes is explaining the appearance of a distinction between micro-physical particles and their color-states via an appeal to the underlying reality of absolute processes. What is crucial here is that, as Sellars sees it, the epiphenomenalist form has proven itself untenable. His survey of the kinds of answers that are possible to the question posed by that form—what is the relation of a substance to its states?—has revealed that no such answers can succeed. Thus, the epiphenomenalist form itself must be rejected. It cannot be rejected simpliciter, though, because of the
obvious reality of the somehow existence of color (or more generally the somehow existence of some homogeneous qualitative feature of experience) that we saw Sellars defend in the previous sections. What needs to happen, therefore, is that the epiphenomenalist form must be explained as being the manifestation of some underlying real ontology. There must be some way that the world really is such that it manifests itself as appearing to consist of substances and their states.

Of course, this is where absolute processes come in. Both micro-physical particles and color-states will be cast as the (merely apparent) manifestation of some underlying feature of absolute processes. For example, just as one can understand a mathematical point as a vanishingly small limit on a more ontologically fundamental line, one can understand a particle as an analogous limit on more ontologically fundamental process. Additionally, if one similarly conceives of a state as a limit on some process as well, then the need to account for the relation between substances and their states vanishes, because both will be cast as features of a single ontological kind: the process.

Furthermore, as Sellars understands this explanation, because they are of a single ontological kind, there is nothing prohibiting understanding the processes that manifest as particles and the processes that manifest as states as interacting causally or as forming parts of a single whole.29

Nor does it require that neuro-physiological objects which have \( \varphi_2 \)-ings as constituents, have only \( \varphi_2 \)-ings as constituents. \( \sigma \)-ings could in a legitimate sense be constituents of neuro physiological objects. That is to say, whereas the objects of contemporary neuro-physiological theory are taken to consist of neurons, which consist of molecules, which consist of quarks, . . . —all physical objects—

an ideal successor theory formulated in terms of absolute processes (both \( \varphi_2 \)-ings and \( \sigma \)-ings) might so constitute certain of its ‘objects’ (e.g., neurons in the visual cortex) that they had \( \sigma \)-ings as ingredients, differing in this respect from purely physical structures.

With this we have arrived at Sellars’s prospectus for a final answer to the question of what the place of color in the scheme of things is. Both micro-physical particles and color-states are actually manifestations of absolute processes. Perceiving subjects consist of processes that manifest as both particles and color-states. When we originally conceived of colors as part of the substance of the world, we were mislocating a part of ourselves. We got this much right in casting color as a state of the perceiving subject, but as the scientific image of ourselves revealed, “state” ended up being a mere placeholder category awaiting further explication. That placeholder lead to the various forms of epiphenomenalism, none of which could make genuine sense of the relation between a state and a substance. Thus, that form must be mere appearance, and so we needed a picture of the underlying reality that could explain it. Colors, like everything else, are absolute processes. Unlike many other things, though, they are absolute processes that, while part of the causal structure of the world, are not “mere matter”. They are essentially mental phenomena: sensa, as Sellars calls them.30

That is a long and winding path with plenty of places along the way for one to pause for hesitation and contemplation, or to step off entirely. My hope is not to have convinced anyone of Sellars’s final position, but only to make a little bit clearer the support that he marshals in support of it. The boundary argument shows that homogeneity is a necessary feature of any object

29It is worth noting that Sellars takes the adoption of an ontology of absolute processes to carry with it a new understanding of causality. As he puts it, it requires abandoning the paradigm of “impact causation” (presumably because there will no longer be particles to impact one another, but rather merely processes unfolding in law-governed ways).

30Here we must keep a careful eye on the distinction that Sellars draws between the mind-body problem and the sensorium-body problem. In that context, ‘mind’ refers to specifically conceptual thinking, as opposed to the mere sensings that are the non-conceptual, phenomenological constituents of thoughts that are also ostensible percievings.
of possible experience. Sellars’s transcendental realism implies that attempts to draw a contrast between homogeneity objects and non-homogenous ones will therefore be impossible. Thus, homogeneity is necessarily both an original feature of our representations of manifest-image objects and a feature that must be preserved through any categorial transformation of those representations. Since Reductive Materialism attempts to represent the world as particulate, and therefore non-homogeneous, it is an untenable account of color. The extant alternatives to Reductive Materialism, however, ultimately fare no better. Once we reconstruct of color from being an objective feature of objects to a state of the experiencing subject, we will inevitably be forced to answer the question of what the relation is between such states and the substances that have them. For all the ways that we might try to finesse this tension, as Sellars sees it, the only plausible answer to this question will require a final categorial transformation: from this dualism of ontological kinds to an ontological monism of homogeneous absolute processes. Sensa are distinctly mental absolute processes that exist alongside and causally interact with other, physical processes that manifest themselves as the more familiar particles of micro-physics. As Sellars sees it, the prejudice against such entirely mental phenomena is the result of some combination of failure to understand the fundamental problems of the epiphenomenalist form, failure to acknowledge the undeniable reality of color, and simple bias in favor of a purely physical mechanistic understanding of the world.

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