

***Sellars on Perception, Science, and Realism: A Critical Response***  
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**Abstract**

In this article, I explain the manner in which Sellars' version of realism is undermined by his Kantian commitments and his normative functionalism. After providing an account of the perceptual and scientific models that support his realism, I argue for the following: Sellars' perceptual/cognitive models do not permit *sufficient* perceptual and conceptual access to warrant a version of realism predicated upon our ability to know mind-independent existence. In other words, Sellars' Kantian commitments, his norm-driven view of concepts, and his norm-guided view of reason place severe limits on one's *access* to mind-independent reality. Consequently, when one strictly holds Sellars to these limits, he cannot *show* (or significantly support) the manner in which knowledge of mind-independent existence is possible.

**1.1 Introduction**

In what manner does Sellars believe perceptual knowledge is possible in light of his normative functionalist views? For instance, *if* 1) the meaning of words can be partly or fully reduced to the function they play in a language, 2) norms mediate and/or determine these functions, and 3) the manner in which perception unfolds is shaped by these norms (all of which are important aspects of normative functionalism), *then* in what sense does Sellars believe we can have objective empirical knowledge? This is an important question to ask, as it reveals the manner in which Sellars believes science, as a discipline founded upon empirical observation, can lead to knowledge of mind-independent existence.

In order to answer the above questions, we need to understand Sellars' account of perception. One of his most complete accounts of perception, as it concerns his peculiar brand of realism, can be found in *Science and Metaphysics: Variations on Kantian Themes*.<sup>1</sup> Given the norm-driven account of Sellars' views on meaning and the foreknowledge that Sellars is a realist, one might expect (and believe he needs) a view of perception that un-problematically supports realism. Instead, Sellars surprisingly makes numerous Kantian commitments that are central to his perceptual model — commitments which are historically interpreted as counter to realism. For example, take the following five Kantian commitments that Sellars adheres to in *Science and Metaphysics* (and throughout all of his later career): 1) neither sensibility (in itself) nor conceptuality (in itself) are capable of providing knowledge of the thing-in-itself, 2) without a pre-existing conceptual framework, no knowledge of empirical content is possible, 3) we are *not* directly aware of sensations, 4) in order to recognize empirical content, as facts or states of affairs, a judgment is required, and 5) in order to relate concepts to sensory content,

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<sup>1</sup> I will now refer to *Science and Metaphysics: Variations on Kantian Themes* as '*Science and Metaphysic*'.

via a judgment, the mind must first synthesize sensory content into coherent units of time and space.<sup>2</sup>

The above views are surprising for a realist to embrace, because they play a central role in Kant's claim that the thing-in-itself (an entity's true existence independent of how a person's mind may contingently experience, believe, or feel about it) is unknowable. Despite Sellars' Kantian commitments, he believes that "the gulf between appearances and things-in-themselves, though a genuine one, can in principle be bridged" (50). In what follows, I will first explain the manner in which Sellars believes this is possible. I then argue that his perceptual views do not support or allow the type of realist conclusion he draws from them.

## 1.2. Analogy and Science

If mental representations of objects are not identical to objects (i.e., they are ontologically distinct), in what manner is it possible for mental representations to accurately represent objects? According to Sellars, part of the answer lies in the analogous ways scientific representations resemble objects and occurrences.

Sellars describes science as helping us to achieve analogous representations of existence in the following terms:

The thesis I wish to defend, but not ascribe to Kant, though it is very much a 'phenomenalism' in the Kantian (rather than Berkeleyian) sense, is that although the world we conceptually represent in experience exists, only in actual and obtainable representings of it, we can say, from a transcendental point of view, not only that existence-in-itself accounts for this obtainability by virtue of having a certain analogy with the world we represent but also that in principle *we*, rather than God alone, can provide the cash. For, as I see it, the use of analogy in theoretical science, unlike theology, generates new determinate concepts. It does not merely indirectly specify certain unknown attributes by an 'analogy of proportion'. One might put this by saying that the conceptual structures of theoretical science give us new ways of schematizing categories. (49)

Sellars claims that part of our capacity to analogously represent existence stems from science's ability to reshape and reorganize (i.e., schematize) the concepts we apply to phenomena. This can occur in two ways. The first way refers to the concepts themselves. For example, the sun appears 'small,' but science informs us that it is 'large'. Science can also provide us with new schemas that are better suited (than our non-scientific schemas) to represent existence. Take for instance atoms, molecules, and the manner in which they are believed to constitute objects. These related concepts do a better job of depicting and

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<sup>2</sup> I use Sellars' technical term 'sensory content' to denote the following: content that sensations contribute to perception, while denying that we are aware of sensations or 'raw feels' in a preconceptual field of awareness.

explaining the material world than the more primitive concepts of earth, water, fire, and air.

The second way concerns Sellars' technical application of the term 'analogy'. Consider the relationship a stick figure bears to a particular man. Any truth that one can glean from a stick figure representing a man lies in our ability to understand the differences, i.e., the 'proportional relation,' between the representation and the actual person. Sellars believes that science can help us to establish the proportional differences between our representations and reality by developing new and better schematizations. (Though as noted above, he believes that science can exceed the achievement of 'analogy of proportion'.) The understanding of the proportional difference between an existing object and a representation involves the type of thinking required of analogies.<sup>3</sup>

### 1.3. Kant and "Picturing"

Before one can understand the unusual role Sellars attributes to the senses and science in obtaining knowledge of external existence, one must first understand the kind of representation he argues is capable of accurately representing mind-independent existence. In order to understand his views concerning this kind of representation, one must first address his view on 'Instrumentalism'.<sup>4</sup>

Instrumentalism grew out of logical positivism (i.e., the belief that all existents are material objects persisting in determinable points in times and space). Instrumentalists are concerned with the problem of transcribing one's observation of objects, which exist in discrete spatiotemporal localities, into theories, models, and analogies. They argue that theories, models, and analogies are *general*. As such, they cannot pertain to or accurately account for the individual and discrete nature of material objects and occurrences.

Instrumentalists claim that the observation of discrete objects has 'privileged epistemic status,' because objects can be observed and general theories cannot. As Hume points out, one cannot observe all instances of a particular kind. One may, for example, observe

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<sup>3</sup> The above technical jargon indicates something quite common in our daily routines. Imagine for a moment a child who already has a basic command of a limited vocabulary and its appropriate use. His parents might introduce a picture of a ball, which resembles a circle, and utter the word 'ball'. The child may at first think of and represent balls in its environment as circles. Yet, as the child develops a more accurate means to refer, think, and represent balls in his environment, he may develop or learn the more sophisticated concept called 'sphere'. In short, he realizes the analogous relation of a circle to that of a ball is inadequate. This in turn prompts him to seek a more accurate concept/representation of balls. Science presumably functions in a similar fashion, by ever seeking more adequate ways to represent and predict the empirical world. However, compared with our everyday addendums to our insufficient views, scientific methods yield incredibly more sophisticated results.

<sup>4</sup> "The instrumentalist, from our point of view, is one who holds that theoretical statements of *all* kinds, including singular statements, are *essentially* instruments for generating statements *in the observational framework*. Thus, if he went along with our distinctions, he would hold that (ampliative) theoretical statements are simply more sophisticated instruments, which along with molecular, quantified, and law-like statements in the observation framework, are means of constructing *observational framework* pictures of objects and events. Picturing, to put it bluntly, would be the inalienable prerogative of the perceptual level of our current conceptual structure" (*Science and Metaphysic* 144).

many individual dogs, but no one person can observe all instances of dogs. Similarly, claims concerning the *general concept* 'dog' are not something to which one can empirically point. Therefore, instrumentalists argue that general claims are incapable of being true or false, because they do not reference something that exists or has existed. Conversely, observations concerning particular objects (e.g. specific dogs) can be referenced, and hence, they are capable of being true or false.

Sellars borrows from this tradition by asserting that real objects are discrete material entities. As a consequence, he is also concerned that any concept, theory, or model will be general and thus not account for the discrete and individual aspects of material objects. In response to this concern, Sellars takes a quasi-instrumentalist stance: consistencies obtained in observation along with the *general theories* of science, which can inferentially 'amplify' what is observable, can permit one to 'picture' the *specifics* of mind-independent existence. This 'picture' is capable of conforming to the "inalienable prerogative of the perceptual level," because it represents specific states of affairs that can be empirically verified (144). As we shall see, Sellars claims that 'picturing,' under the appropriate conditions, can accurately represent existence.

In order to come to terms with the above claim, we need to uncover the specific manner in which Sellars believes picturing can permit *analogous* insights into mind-independent existence. It is important to recognize that Sellars' term 'picturing' does not mean imagining a perspectival image. For instance, actively imagining objects from a particular perspective would be similar to perception itself. Sellars denies that perception (in itself) yields knowledge of the thing-in-itself, because he agrees with Kant and science (though they disagree as to why this is the case) that the world is not as it appears. What then are we to make of his vague use of the term 'picturing'?

In *Science and Metaphysics*, Sellars fails to spell out what he means by 'picturing'. However, its connotation is charged with the following implication: when we 'picture' what something is like, we can use relevant sensory content and apply such content in a manner that is compatible with scientific theories. If this is the case, 'picturing' stems neither from sensory nor conceptual content alone, but some fusion of both.

Since Sellars does not offer an explicit account of what he means by 'picturing' in *Science and Metaphysics*, we need to look elsewhere for a further explanation of it. The most relevant account of the mental processes involved in the act of picturing can be found in his article "Kant's Transcendental Idealism."

The title "Kant's Transcendental Idealism" is misleading, because transcendental idealism is not the focus of Sellars' article. Instead, this article centers on a specific interpretation of Kant, which argues that he employs a concept now called 'perceptual takings'. As we shall see, 'perceptual takings' play a key role in Sellars' conception of 'picturing'.

Sellars interprets Kant as writing on perceptual takings in the following manner:

It will be useful to connect Kant's concept of the 'intuition of a manifold' with that strand of contemporary perception theory which operates with the fairly traditional concept of intentionality. A familiar notion is that of perceptual takings. Perceptual takings are, so to speak, takings which are evoked in our minds by our environment or, in the limiting cases, by abnormal states of our nervous system. [...] We should think of perceptual takings as providing *subjects* for propositional thought, rather than already having full-fledged propositional form. (original emphasis, 6)

According to Sellars, Kant's account of the *a priori* structure or logic (i.e., 'transcendental logic'), which enables an 'intuition of a manifold' to pick out a subject, can be interpreted as "*rules for generating perceptual takings*" (11).<sup>5</sup> By 'rules,' Sellars means that which is required for counting a mental act as belonging to a particular kind of activity. In this context, one can follow the *rules for generating perceptual takings* without *knowing* or *choosing* to do so, i.e., it is a preconscious event.<sup>6</sup>

Kant credits the mind with being entirely responsible for its own ability to produce perceptual subjects (i.e., objects of awareness). Additionally, the mind alone is responsible for the appearance and recognition of perceptual objects: "Only the spontaneity of our thought requires that this manifold first be gone through, taken up, and combined in a certain way in order for a cognition to be made out of it" (A 77). For Kant, 'spontaneity' is closely associated with human freedom, in that the way we respond to the manifold has no cause outside of the human mind itself. (This claim does not deny that we are influenced by external entities, but only that the manner in which we respond to them is due to the manner in which we spontaneously and/or freely judge and reason.) This view plays a crucial role in Kant's denial that we can know mind-independent existence. For example, he argues that a representation is a creation of the human mind with no external cause being responsible for its specific mode of presentation. Hence, he

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<sup>5</sup> A 'manifold' refers to the plurality of sensory content and/or the plurality of their synthesis/organization under the forms of space and time.

<sup>6</sup> In acknowledging Kant as having discovered the 'rules' for 'perceptual takings,' Sellars has the following kind of passage in mind:

The first thing that must be given to us *a priori* for the condition of all objects is the *manifold* of pure intuition [of space and time]; the **synthesis** of this manifold by the means of the imagination is the second thing, but it still does not yield cognition. The concepts that give this pure synthesis **unity**, and that consist solely in the representation of this necessary synthetic unity, are the third thing necessary for cognition of an object that comes before us, and they depend on the understanding. (A 79)

The manner in which the mind unconsciously coordinates the "*rules for generating perceptual takings*" is three fold (*Science and Metaphysics* 11). 1) Before any cognition of an object can occur, there are sensory intuitions that are conditioned by the forms of space and time. 2) All the various sensory intuitions must then be synthesized by the imagination: "the synthesis alone is that which properly collects the elements for cognition and unifies them into a certain content" (A 78). 3) The synthesis of sensory intuitions (i.e., appearances) can then be subsumed under a concept which produces the *recognizable* subject in the act of perception (e.g., a tree, a dog, a cube, etc.).

claims that the mind is wholly responsible for the manner in which representations are presented to the observing subject.<sup>7</sup>

While Sellars agrees with Kant that the manner in which the mind responds to the manifold has no external cause, he (unlike Kant) claims that empirical content can contribute to the achievement of knowledge (as it concerns mind-independent existence).

Kant maintains that "the manifold of appearances is always successively generated in the mind" (A 190). What makes perceptual takings a special kind of representation is that they represent *one* subject, despite the fact that we are always experiencing a succession of appearances:

[T]he apprehension of the manifold in the appearance of the house that stands before me is successive [e.g. I can observe it from the front, the back, the side, and from numerous interior views]. Now the question is whether the manifold of this house itself is also successive, which certainly no one will concede (A 190).

While one may have many particular perspectival (i.e., from a particular point of view) experiences of a given house, the house itself (as the human subject *conceives* it), is not perspectival (i.e., it does not exist as a particular point of view as seen in a photograph). The *non*-perspectival representation of the house is an instance of what Sellars calls a 'perceptual taking'.

Perceptual takings are of particular importance to Sellars for the following reason: *if* there is some way we can grasp mind-independent objects, and *if* mind-independent objects possess discrete spatial boundaries, our *knowledge* of them would have to overcome the particular perspectives (or vantage points) from which all empirical experiences occur. In brief, mind-independent entities are not the facing side of the object we are looking at. Similarly, they are not foreshortened as perceptions and drawings render them.<sup>8</sup> Presumably, mind-independent objects have many sides. Given these ontological commitments, any particular perspective cannot accurately 'represent' a mind-independent object. This is the case, because *vantage-points* are produced by the observing subject and should therefore not be confused with the mind-independent object.

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<sup>7</sup> This claim is often mistaken with solipsism, i.e., as individuals we are shut off from existence, including other minds. Kant does not claim that the mind fails to possess a relation to external existence. Instead, he argues that the human mind is solely responsible for the manner in which it generates representations. As such, we cannot know the true nature of this relationship, as humans are locked into their *human* perspective. However, according to Kant, empirical experiences, aesthetic experiences, and moral views, are not subjective at the level of individuals. He argues humans share the same transcendental structure, which ensures shared human experiences.

<sup>8</sup> The same would be true for all the senses. What appears hot or rough, loud or quiet, sweet or sour, etc., depends on our orientation. Sextus Empiricus and Berkeley are famous for noting such occurrences. Additionally, Sellars appears to take the following traditional view: specific tastes, sounds, or experiences of hot and cold are not the objects themselves, but effects objects have on one's sensory equipment.

Sellars suggests that perceptual takings make it possible to 'picture' mind-independent existence, because they permit us to possess a non-perspectival representation. Given Sellars' views on physical existence and 'Instrumentalism' i.e., the view that nothing general can be true or false, only a specific (as opposed to general) non-perspectival representation is capable of 'picturing' mind-independent reality as it truly exists.

#### **1.4. Sellars' View of Sensation and Its Role in Inner Sense: His Rejection of Kant's Claim that Time and Space are Ideal.**

According to Sellars, understanding the role of sensation in perception is of the "greatest importance to philosophy of the mind" and science (17).<sup>9</sup> He takes this stance, because he believes that empirical knowledge and scientific knowledge are "based on, though not constituted by, the impact of independent reality" (9). Even though we fail to directly receive factual information or awareness of universals from sensation (e.g., Sellars' rejection of the myth of the given), the above excerpt indicates his belief that empirical and scientific representations are significantly connected and responsive to mind-independent existence.

Sellars' "Appendix: Inner Sense" seeks to revise Kant's role of sensation in the act of 'association'. Though Sellars does not reference this Kantian term, we shall see that Sellars nonetheless addresses the same topic.

Kant defines 'association' as the capacity to correlate appearing empirical content into practical and meaningful relationships:

It is, however, clear that even this apprehension of the manifold alone would bring forth no image and no connection of the impressions were there not a subjective ground for calling back a perception, from which the mind has passed on to another [...] [I]f representations reproduced one another without distinction, just as they fell together, there would in turn be no determinate connection but merely unruly heaps of them, and no cognition at all would arise, their reproduction must have a rule in accordance with which a representation enters into combination in the imagination with one representation rather than with any others. This subjective and **empirical** ground of reproduction in accordance with rules is called the **association** of representations. (original emphasis, A 121)

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<sup>9</sup> "But is it genuinely necessary to interpose non-conceptual representations *as states of consciousness* between the 'physical' impact of the sensory stimulus and the conceptual representations (guarded or daring) which find verbal expression, actually or potentially, in perceptual statements? Can we not interpret the receptivity involved in terms of 'purely physical' states and attribute to these the role of guiding conceptualizations? Why should we suppose that receptivity culminates in a state which is neither 'purely physical' *nor* conceptual? Yet to do just this, I shall argue, is of the greatest importance for the philosophy of the mind and, in particular, for an understanding of how the framework of physical science is to be integrated with the framework of common sense" (*Science and Metaphysic* 16-17).

For Kant, the rules of association are purely derived from the mind, and as such, there is no assurance that our method of unconsciously and consciously associating appearing content is faithful to mind-independent existence. As we shall see, Sellars claims sensation guides (what Kant calls) 'the *rules* of association' in a manner that permits knowledge of mind-independent existence. This claim forms the backbone of his realism.

Assume the following: at times T1, T2, and T3, three numerically distinct perceptual processes occurred. How can numerically distinct perceptual processes become meaningfully 'associated' to one another? Additionally, how does the 'unity of apperception' (there is always an I/observing subject undergoing an experience) function in regards to the continuity of successive perceptual takings? These two questions concern how the 'rules of association' operate.

Sellars' response to the above questions invokes a distinction between sensory content, representations of sensory content, concepts, and memories. For example: 1) a *conceptual* representation can follow one's present experience of sensory content, 2) a *conceptual* representation can follow a representation of *sensory* content, 3) a *memory* of a sensory content can follow *sensory content*, 4) a *conceptual representation* can follow another *conceptual representation*, and 5) a *memory* of one kind of sensory occurrence may follow a *memory* of another type, etc., (230).<sup>10</sup> In this fashion, one could create a large list of possible combinations of mental occurrences and their temporal associations or placement relative to one another. The point of these distinctions is to show that our inner experience forms temporal relations between sensory occurrences, conceptual representation, sensory representation, memories, and any combination thereof.

Sellars claims that successive perceptual processes create a manifold of representations, which can involve any number of the above distinctions. He believes that representational manifolds can be re-represented and incorporated into succeeding perceptual processes. For instance:

There seems, at least, to be no absurdity in the idea that features of sensory representations by virtue of which they guide the understanding in its conceptual representation of temporal relations between perceived events is not *directly* the temporal relations of the impressions but rather counterpart relations within a *co-existent* structure of sensory representations. (231)

According to Sellars, concept formation is 'guided' by current sensory content and by representations of *previous* appearing content (i.e., a '*co-existent* structure of sensory representations').

Sellars' '*co-existent* structure of sensory representations' can be expressed as follows:

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<sup>10</sup> Sellars only provides four examples, but his intent is to show that any combination of mental processes, including sensory receptivity, can affect one's stream of consciousness.

Sensory Manifold at T1 permits a sensory representation → conceptual representation at T3 is *informed* by sensory representation from time T2

I outline a barebones model for the sake of clarity. Sellars' model is more complex, as it entails multiple layers of sensory and conceptual representations and memories of representations, all affecting and influencing one's current awareness of empirical states. The opposite of the above model would presumably be possible as well: a conceptual representation of a *previous* sensory occurrence can modify *current* sensory representations.

This occurrence may also be retroactive, i.e., one's current sensory representation and/or conceptual representation could lead to revisions of one's memories of previous representations. Psychologists sometimes refer to this phenomenon as 'memory corruption' when it is responsible for false or misleading memories. Obviously, these layering processes can become quite complex and highly interconnected. The relevant feature of this Sellarsian model is not its complexity, but rather what Kant calls 'association,' which can have retroactive and proactive influences on our sensory and conceptual representations.<sup>11</sup>

According to Sellars, the above model of perception permits a stronger correlation with mind-independent existence than Kant realized. This claim stems from Sellars' assertions concerning sensory intuition. First, Sellars asserts that sensations are caused by the impact of physical existence on one's sensory equipment. Kant's account of the passivity of senses *implies* this Sellarsian account; yet, Kant is careful to remain non-committed to the metaphysical assumptions imbedded within it. Secondly, since the occurrence of sensations requires such impact, and since our perceptions are subsequent responses to such stimuli, the successive progression of sensory contents indicates a temporal *ordering* imposed by external existence. As a result of the above two views, Sellars claims that there is a *temporal* correspondence between sensory content and the mind-independent world. This position outlines why Sellars believes Kant is wrong to argue that time is purely a mental construct.

Sellars believes his account of temporal sequences can also demonstrate that perceived spatial relations are significantly related to external space. He makes a case for this claim with the following example:

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<sup>11</sup> On a lesser note, this occurrence can lead to our *experience* of the temporal displacement:

[One] might then go on to argue that the concept of such a counterpart reconstructs that puzzling feature of experience which is called the specious present, which, as traditionally conveyed, is an incoherent combination of literal simultaneity and literal successiveness. (*Science and Metaphysics* 232).

There is an ambiguity in the experience between what is being sensed at a particular moment and prior representations, which are related to presently observed content. This 'co-existent structure of sensory representations' may account for the simultaneous experience of the present and succession.

Consider, for example, the perception of the raising of a hand. Obviously we must distinguish, to begin with, the perception of a sequence from a *mere sequence of perception*. (232)

In this passage, Sellars distinguishes between the succession that occurs in *mind-independent existence* and the *mental* succession found in perceptual experience. He believes that this distinction accounts for our experience of spatial relations as being produced from the mind actively linking successive empirical content. For instance, at time T1, the clock's hand is at 1 o'clock. At time T2, the clock's hand is at 2 o'clock, and so on. Sellars claims that the disparity between the hand at 1 o'clock and the succeeding appearance of it at 2 o'clock accounts for not only motion but spatial relations as well. In other words, he claims that as our eyes rove over successive visual environments, the resulting successive sensory content allows for the formation of spatial relations.

The above claims imply the following kind of argument against Kant's assertion that our experiences of time and space cannot accurately portray outer existence:

- 1) The succession of perceived content is *caused* by the succession of physical impacts upon one's sensory equipment.
- 2) The perception of succession is thus causally linked to mind-independent occurrences of succession. (The same would presumably be true for the experience of simultaneity.)
- 3) Temporal recognition is a response to *non-conceptual* occurrences of sensory modification, which is caused by mind-independent entities successively impacting our sensory equipment.
- 4) Spatial recognitions are also made possible by the successive occurrences of sensory content, which are caused by mind-independent entities successively impacting our sensory equipment.
- 5) *Perceived* motion and spatial relations, which are *conceptual*, are based on non-conceptual features that can only be caused by (barring abnormal neurological conditions) the successive impact of physical entities on one's sensory equipment.
- 6) The realizations of temporal and spatial relations are all made possible by successive physical impacts on one's sensory equipment.
- C) Thus our experience of time and space are linked to external existence, which proves that time and space are not purely mental constructs.

The form of this argument begs the question as to the correlation between the phenomena of succession and its indication of mind-independent space. For instance, Sellars assumes that the succession of sensory impacts, which the mind transforms into representations of space, is similar to the space of mind-independent reality. Yet, he has not shown this to be the case; he has only offered an account of our experience of space. He simply assumes our experience of space is similar to mind-independent space. While one can be critical of this move, let us first address the last segment of his epistemic argument.

Sellars believes his account of perception and science permit the following:

Kant's account implies indeed that certain counterparts of our intuitive representation, namely God's intellectual intuition, are literally true; but these literal truths can only be indirectly and abstractly represented by finite minds, and there is an impassible gulf between our *Erkenntnisse* and Divine Truth. If, however as I shall propose [...] we replace the static concept of Divine Truth with Peircean conception of truth as the 'ideal outcome of scientific inquiry', the gulf between appearances and things-in-themselves, though a genuine one, can in principle be bridged. (50).

In the above passage, Sellars refers to two distinct philosophical traditions. Each needs to be discussed in order to determine Sellars' claim. First, the scholastic conception of 'Divine Truth' stems from the theological commitment that God is not an embodied being. Since God is not embodied, He cannot have senses. As a consequence, God does not perceive the world from any vantage-point. Christian theologians assert that God directly intuits existence and that there is no difference between his intellectual understanding and that of reality. Sellars claims that, when our capacity to picture is guided by sensory receptivity and aided by science, one can obtain accurate knowledge of mind-independent existence. The implication is that such knowledge (like God's) is non-perspectival.

Second, Sellars' reference to "Peircean conception of truth as the 'ideal outcome of scientific inquiry'" is a guarded stance concerning science. This claim does not presume that science is currently equipped with the ability to accurately represent mind-independent existence. Instead, Peirce *infers* that, with each new advancement in science, science gets closer to answering the questions we want to know:

... [T]hough in no possible state of knowledge can any number be great enough to express the relation between the amount of what rests unknown to the amount of the known, yet it is unphilosophical to suppose that, with regard to any given question (which has any clear meaning), investigation would not bring forth a solution of it, if it were carried far enough ("How to Make our Ideas Clear" 39).

### 1.5. Can Sellars Overcome Hegel's Dialectic?

Sellars believes his above arguments disprove Hegel's dialectical view (in the *Phenomenology of Spirit*) that it is impossible to obtain mind-independent knowledge:

Indeed, it is only if Kant distinguishes the radically non-conceptual character of sense from the conceptual character of the synthesis of apprehension in intuition [...] and, accordingly, *receptivity* of sense from the *guides* of intuition that he can avoid the dialectic which leads from Hegel's *Phenomenology* to nineteenth-century idealism. (16)

In other words, the Kantian tradition can overcome Hegel's claim that only human consciousness and its varied contents are knowable when the Kantian tradition properly comes to understand the role of receptivity.

Can Sellars' epistemic model overcome Hegel's dialectic and show that mind-independent knowledge is possible? I argue that Sellars' attempt to do so fails on several fronts.

Not all realists agree with Sellars' ontology. For instance, later Russell argues for an 'event ontology,' i.e., objects are comprised of microscopic entities that are in constant motion. In fact, event ontologists rarely include 'objects' in the strict sense of the term in their ontologies. If this view is correct (as modern physics argues), can the mind picture a particular 'object' as the specific and localized event it is and transcend purely general accounts of what it is like? In short, can picturing accurately express the billions of unique microscopic spatial and temporal occurrences that comprise perceived objects? The level of complexity of many of these modern ontologies makes this task seem impossible. Hence, even competing realists' models call into doubt Sellars' claim as to our ability to 'picture' and thus know mind-independent existence.

Nor should we assume, as Sellars does, that one scientific model will one day replace all of its competitors as the final outcome of science (as Peirce suggests). The resolution of practical problems or the predictions one wishes to make concerning phenomenon may require several different models/theories (e.g., predicting weather). Moreover, as we learn to make ever increasingly nuanced observations of a particular kind of phenomenon, new models/theories may be required to answer previously undreamt questions. This facet of science brings into doubt its capacity to construct a model of physical existence that will supplant all others for all time. Accordingly, even if picturing could be analogous to existence, we would never be assured that our current scientific models are sufficient to properly guide our picturing, because our current scientific models may at some future date be replaced by radically different models.

Given the limitations of our access to existence (i.e., it is restricted to appearing phenomena) and social influences (as asserted by the normative functionalist) on scientific research, it is unlikely that one could recognize when one happens upon the best possible model/theory. Nor is it clear how the human intellect is capable of making such a distinction, because the success of a scientific model is limited to how well it solves a specific set of well-defined questions. The speculative claim that X is the *best possible* model is not demonstrable in science, because all that one can validate via science is that X is the best *available* (i.e., at a future date a better one may come along) model/theory for resolving a specific set of practical problems or predicting certain kinds of appearing phenomena.

Sellars' strategy for establishing how knowledge of mind-independent objects is possible employs the well-worn belief that there is a link between phenomena and the entities that cause them. I would like to now dredge up a classical argument against knowledge claims derived from causal inferences and then see if Sellars' perceptual model can overcome it.

In response to traditional causal accounts, Stace succinctly captures a shared Humean-Kantian thesis:

The only reason we have for believing in the law of causation is that we *observe* certain regularities or sequences. We observe that, in certain conditions, *A* is always followed by *B*. We call *A* a cause, *B* the effect. And the sequence *A-B* becomes a causal law. It follows that all *observed* causal sequences are between sensed objects in the familiar world of perception, and that all known causal laws apply solely to the world of sense and not to anything beyond or behind it. And this in turn means that we have not got, and never could have, one jot of evidence for believing that the law of causation can be applied *outside* the realm of perception, or that the realm can have any causes (such as the supposed physical objects) which are not themselves perceived. ("Science and the Phenomenal World: A Defense of Phenomenalism" 97)

Sellars' epistemic model needs some way to overcome this skeptical juggernaut, i.e., in order for his view to be true, the above view must be false (in some sense).

Even *if* we grant that there is a causal chain that links phenomena to mind-independent entities, the problem still remains: how do we infer from such a chain what existence is like independent of how the mind pictures it? According to Sellars, science and our sensory intuitions can permit us to slowly (given sufficient scientific research) refine a 'picture' of the thing-in-itself. Yet, how do we know such picturing is accurate? Shall we observe if it is? Here is the rub, as Stace properly points out: science can only indicate what will *appear* to the observing subject, based upon predictive models and theories. If this is the case, then inferred picturing is merely an *assumption* as to what mind-independent existence is like. This is what Hume, Kant, and Stace mean when they argue that, from the *appearances* of cause and effect, we cannot demonstrate truths concerning unobservable existence.

How can there exist a knowable analogy between the mind and mind-independent content, when there is no discernible standard by which one can measure the difference between the two? For instance, Sellars is the first to admit that an empirical appearance of a cube, the concept of a cube, and the mind-independent object that elicits these responses are ontologically distinct. As a result, how can one understand the analogy between mental images, concepts, and the non-mental thing-in-itself, if we do not already know what the thing-in-itself is like?

An analogy is only meaningful when one understands some similarities between the two objects of comparison stated in the analogy. Picturing is the first part of the analogy, and the thing-in-itself is that to which one's picturing is being compared. Without already knowing what the thing-in-itself is like, the analogy fails to convey meaning. Hence, to know that one's picturing is analogous to the thing-in-itself, one must already know in

what manner one's mental constructs are analogous to the thing-in-itself. This leaves us with a result that opposes Sellars epistemic model:

- P1. Sellars' method for knowing the thing-in-itself is 'picturing'.
  - P2. The relationship between picturing and the thing-in-itself is claimed to be analogous.
  - P3. The *analogous* relationship between picturing and the thing-in-itself is claimed to permit knowledge of the thing-in-itself.
  - P4. Analogies are only meaningful if one already knows something about the two entities being compared.
  - P5. Hence, one can only know the thing-in-itself via picturing when one already knows something about the thing-in-itself.
  - P6. Knowing the thing-in-itself thus requires some means other than picturing as a starting point for analogous comparisons.
  - P7. Sellars offers no means other than picturing for knowing the thing-in-itself.
- C. Sellars does not have a workable epistemic model that permits knowledge of the thing-in-itself.

There is no way to understand the analogous relation of picturing to the thing-in-itself unless we already know something about what the thing-in-itself is like. Yet, Sellars claims he can show that picturing guided by science is *sufficient* to obtain knowledge of the thing-in-itself. However, as argued above, science cannot demonstrate (at least as expressed by Sellars) what lies behind the appearing world. Sellars' epistemic model therefore fails.

A Sellarsian may respond to the previous criticism with the following kind of presumed counterexample. Jones calls the U.S. from New Guinea. He states he is eating vegetable X. His U.S. friend asks what vegetable X is like. Jones responds that it is like a potato. If Jones is a reliable observer, many would argue that Jones' friend gained limited knowledge concerning vegetable X.

The problem with comparing the above kind of example to Sellars' epistemic model can be stated as follows: one cannot glean knowledge of the thing-in-itself via the first object of comparison (in an analogy). For instance, from the designation 'vegetable,' one can analytically unpack many facts about X: it is a food item, a plant, and an entity that conforms to the temporal and spatial limitations of empirical objects that fall under such headings, etc. According to Sellars, the thing-in-itself is not something we already know. It is something we must infer from scientific and observational content. We thus return to a fundamental problem. If we do not already know what the thing-in-itself is like, we cannot assume that our familiar empirical concepts and images are applicable. Nor will we know what aspects of the familiar we should project onto the thing-in-itself.

At this point in my argument, the proponents of Sellars will likely want to emphasize the following Sellarsian claim: science and the limiting factors of sensation allow us to infer what the thing-in-itself is like. Yet, in what manner can science and sensation permit one

to picture the thing-in-itself? Sellars attempts to argue for the following response to this question. One, picturing can possess an 'analogous' relation to existence. Two, from this analogous relation, one can develop a 'proportional relation' to the thing-in-itself. Three, an ideal case of picturing, guided by science, results in an accurate/perfected representation of the thing-in-itself.

In an attempt to make the above epistemic model work, Sellars argues that spatial relations formed from successive impacts permit us to picture according to the "inalienable prerogative of the perceptual level" the true existence of an object when guided by scientific discovery (144). He merely assumes that the manner in which the mind maps or pictures spatial relations is analogous to mind-independent existence. For instance, even if the succession of empirical experience has a corollary to mind-independent reality impacting our senses, the resulting experience of time or space need not accurately resemble mind-independent existence. Likewise, perceptions need not bear a discernible analogy to existence itself. While it is true that our experience of the world needs to produce functional representations to account for their predictive and practical efficacy, such successes need not be predicated upon metaphysical accuracy. Hence, the 'inalienable prerogative of the perceptual level' is assumed rather than demonstrated, or even worse, the subtle philosophical conception of metaphysical accuracy is conflated with a bricklayer's need for practical efficacy.

Even if one grants Sellars the claim that there is a causal chain linking the act of perception and the thing-in-itself, this concession does nothing to establish one's capacity to 'picture' as he conceives of it. This is the case, because appearances and 'picturing' are the sole property of minds. It is therefore unclear as to what, if any, *resembling* features they may share. In other words, analogies and resembling(s) are mental occurrences. Hence, it is not clear if mind-independent objects appear, resemble, or are analogous to anything, much less the contingent ways the human mind conceives reality.

As seen in Sellars' normative functionalism, norms play a role in just about every aspect of human experience and understanding. If this is the case, normative functionalism adds additional layers of separation from mind-independent content. Likewise, once one accepts (as Sellars does) that the mind synthesizes sensory inputs according to its *own* rules (even if its constructs are limited by sensory input), one loses all assurances that the empirical format of one's experience is an accurate representation of mind-independent existence. Similarly, if the mind rather than existence is responsible for how the mind constructs phenomena and concepts, then any theory concerning the manner in which one can accurately depict existence is ultimately unverifiable. Put another way, if we are responsible for the manner in which all phenomena appear, we are then restricted to a human perspective, i.e., we cannot get outside of our human perspective in order to verify that mankind is equipped to accurately portray outer existence.<sup>12</sup> Thus, the 'inalienable

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<sup>12</sup> Please note my Kantian assertion is that the human mind is responsible for the manner in which empirical phenomena are presented. For example, the mind is like a computer programmer who determines the format for how images will appear on the screen (in this case, the mind's eye). I am not, however, asserting that the mind also initiates the occurrence of empirical appearances.

prerogative of the perceptual level' loses its sense of being an 'inalienable prerogative', i.e., a reliable inlet to mind-independent content.

If Sellars' epistemic model is to produce an intellectual and pictorial image that is similar to God's intellectual intuition of the thing-in-itself, his model must be accurate. As such, the concept of metaphysical accuracy is of particular importance to Sellars' epistemic model.

I have been advocating the following claim: Sellars' theory wrongly assumes that the predictive efficacies of scientific models and theories provide content that can be inferentially used to discern what mind-independent entities are like. Take, for instance, statistical models. They are seen as useful for making predictions based on probabilities, but few would claim that statistical models resemble mind-independent reality. Likewise, successful scientific models that are practical or permit predictable outcomes do not *require* metaphysical accuracy. Since scientific successes do not require metaphysical accuracy, one is not entitled to presume that science is a reliable tool to disclose mind-independent existence (independent of how humans perceive/conceive it). Sellars does not provide adequate support for science playing such a role.

Why should our picturing resemble mind-independent reality? Sellars' response largely hinges upon the limiting factor of causal relations responsible for sensory excitation. Limiting factors of causal chains via sensation *may* account for our practical means of navigating the perceived world, but such a link does not provide the kind of information that can support the veracity of a metaphysical model. This occurs, because limiting factors establish only what can be observed and what is functionally achievable. Such information fails to inform the subject as to what lies behind appearances.

In conclusion, Sellars slides between the following three commitments:

- 1) Peirce is correct to imply that as science proceeds it will get closer to *the* truth, which transcends mere 'empirical truth' (i.e., what can be confirmed by observation).
- 2) The more that scientific models can predict empirical outcomes, the more likely one can extract from them metaphysical truths concerning mind-independent entities.
- 3) 'Picturing' that is informed by empirical experience and the best available science can be 'analogous' to the thing-in-itself.

The problem with 1 and 2 is that there is no way to determine how much further science needs to go until it arrives at the truth or if one's metaphysical inferences born from scientific models are like the thing-in-itself. The scientific realist claims that his metaphysical models are true (or close to being true) at the cost of begging the question as to what constitutes an accurate metaphysical account. This occurs, because the only way one can tell 1) how close science is to the truth, 2) if one's metaphysical inferences are correct, or 3) if one's picturing is correct, is to already know the answer. We are thus left with a similar result as found in section 1.3, i.e., in order to obtain preliminary

knowledge of the thing-in-itself, one must employ some means other than science or picturing. Yet, Sellars has no additional options to fall back on.

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