

# Wilfrid Sellars on Truth

## Between Immanence and Transcendence

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### 4 A modest Sellarsian approach

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## 4 A modest Sellarsian approach

The preceding two chapters have laid out the problem space created by Sellars's adoption of both an immanent and a transcendent concept of truth and discussed existing proposals for navigating this space. I will now turn to a more constructive approach of my own. We are still facing Rorty's challenge, and while Seibt's, Seiberth's, and Rosenberg's approaches are helpful in many respects, they do not seem to defuse this challenge entirely.

The first part of this chapter discusses conceptual continuity and reconceptualization in Sellars's thinking. I argue that we should understand conceptual successorship and conceptual continuity as context-sensitive notions in Sellars. Therefore, there is not one exclusive rational reconstruction or projection into the future of a continuous development of our concepts. If this is an acceptable reading of Sellars on conceptual continuity, any account of Sellars's concept of ideal truth must accommodate this idea.<sup>1</sup>

After this, I discuss Sellars's regulative ideal of a Peircean conceptual scheme. The Peircean ideal should not be primarily conceived as something that we strive for only after our conceptual practices have been set up, i.e., an ideal limit we could try to approximate after we have already acquired the status of concept users. Rather, the Peircean ideal is always already effective in our and any possible conceptual practices. It is the perfect realization of norms constitutive for any conceptual scheme, i.e., norms that any concept user needs to recognize at least implicitly.

The last part of this chapter is concerned with the role of the practical domain in Sellars's account of ideal truth. While the limit concept of ideally efficient agency is problematic, practical reasoning still plays a crucial role in Sellars's account of theory succession, conceptual change, and, thus, ideal truth. I discuss a less ambitious role for the practical domain, which lines up with the considerations about regulative ideals advanced before.

#### 4.1 Conceptual change and reconceptualization

In this section, I want to discuss reconceptualization and conceptual change in Sellars. Sellars claims that the Peircean conceptual scheme and our current conceptual scheme can be related to each other as two variants of “the same game” (SM, chap. V §72).<sup>2</sup> Thus, there must be some continuity between these two conceptual schemes. Authors discussing Sellars’s notion of ideal truth typically highlight this continuous aspect of his understanding of conceptual change. For many, e.g., for Rosenberg, it plays a central role in their reconstruction of Sellars’s views.

My aim is two-fold. After introducing the problem of conceptual continuity, I first want to discuss statements about what things really are, e.g., “Gases are really clouds of molecules.” I will argue that, based on Sellars’s thought, such statements can be understood as metalinguistic statements. They covertly appeal to the notion of reconceptualization and thus require us to understand conceptual change as continuous in some way. Second, I will argue that statements about conceptual continuity, including statements about what reconceptualizes what, are context-sensitive for Sellars.

According to this view, there can be more than one way of correctly reconstructing a continuous path of conceptual change and thus of reconstructing what reconceptualizes what, i.e., “what is really what.” I will also show that the constraints imposed by Sellars and some of his readers on rational conceptual change cannot eliminate this context sensitivity.

Since Sellars’s ideal truths will be formulated in the vocabulary of theoretical science, the most interesting type of conceptual change related to ideal truth is theory change.<sup>3</sup> However, my argument will concern conceptual change in general, theory change included.<sup>4</sup> Therefore, this chapter will not specifically address the problems related to Sellars’s account of theory change, e.g., questions related to theoretical explanation of what we observe.

There are different cases of conceptual change. We can introduce new concepts (e.g., concepts for new biological species) or abandon old ones (e.g., the concept of ether). However, I will focus more specifically on two further cases that are central to Sellars’s account of conceptual change. The boundary between these two cases is probably not best understood as sharp, but this will not be essential for my discussion. First, concepts can be enriched with new inferential rules, or some such rules can be eliminated. For instance, we might find out that a known kind behaves unexpectedly under certain circumstances, e.g., that certain cancer cells react positively to a specific treatment, and enrich the respective kind concept with a new inferential rule. Second, new concepts can “reconceptualize” what was

captured by former concepts. For Sellars, reconceptualization typically involves shifts in the categories to which a certain phenomenon is understood to belong. For example, we might come to conceive something as an assembly of discontinuous micro-entities (a cloud of molecules) that we had before conceived as a continuous expanse (a gas).

When we speak about conceptual change, the problem of continuity looms large. This problem is sometimes called “Strawson’s problem” in contemporary discussions about conceptual engineering (e.g., Cappelen 2018), after an objection by Peter Strawson directed at Carnap’s program of explication. Strawson challenges Carnap to explain why the conceptual changes produced by explication are not mere changes of subject. If we reformulate questions posed originally in terms of a commonsense concept of temperature by using the concept of mean kinetic energy of molecules, why should we think that we are still asking, and answering, the same question? Strawson’s challenge has prompted many debates concerning the criteria that distinguish a mere replacement of an older concept by a new concept from a continuous process of conceptual revision, i.e., a process where a concept is *changed* but not discarded or replaced. Such questions about continuity and the identity of concepts through conceptual change are singularly important for Sellars since much of his thinking about ideal truth and his Peircean regulative ideal but also about the relation between the manifest and the scientific image, depends on the idea that later conceptual schemes are continuous with former conceptual schemes (see, e.g., his discussion in SM, chap. V).

Sellars wants to account for continuity across conceptual change by appealing to *relevant similarities* in the functional roles of old and new concepts (SM, chap. V §47). Because of his holistic account of meaning (see, e.g., EPM, §19 and n. 6 added in 1963), this strategy might seem questionable from the start. For Sellars, the meaning of an expression and the content of the corresponding concept are determined by the functional role of the expression in its linguistic system. This role can be made explicit by stating the rules of inference governing the use of the expression, such as

That something is a whale implies that it is a fish.

The adoption of a new material rule of inference, such as

That something is a whale implies that it is a mammal

changes the meaning not only of the term “whale” but also of the terms “fish” and “mammal,” and of any other term involved in correct inferences containing the term “whale.” Thus, the question arises in what sense the

old and the new use of “whale” would count as similar.<sup>5</sup> Strictly speaking, we could not claim that users of the old and the new conceptual scheme both recognize the same rule when they state, e.g., “That something is a whale implies that it eats plankton.” This is because the term “plankton” does not have exactly the same meaning in the two schemes. It does not occur in precisely the same pattern of inferences in the new and old scheme (e.g., the old scheme allows for the inference “This is a mammal, therefore, it does not eat plankton” while the new scheme does not). This also applies to other terms involved in inferences containing “whale.” It is unclear what it means to say that the functional roles of the old and the new term “whale” are similar since, strictly speaking, the inference rules constituting these concepts do not overlap.

Here, I will presuppose that Sellars’s holism can be formulated in a way that circumvents this problem (for a discussion of potential solutions, see, e.g., Jackman 2020). My aim is to show that even if Sellars can defend the idea that conceptual roles in different conceptual schemes can count as relevantly similar and, therefore, continuous, statements about such conceptual continuity will be context-sensitive within his framework. This has consequences for what an account of Sellars’s concept of ideal truth can appeal to.

For Sellars, relevantly similar successive concepts can be seen as pairs of predecessor and successor concepts, or conceptual counterparts (e.g., FMPP, lec. III §92). Obviously, Sellars must provide criteria to assess whether two concepts are relevantly similar and thus a predecessor-successor pair. The relation between a predecessor and a successor concept is not a mere temporal relation (and it probably need not involve any specific temporal relation between the two concepts at all). Unfortunately, Sellars never explains in detail according to what criteria two concepts count as a predecessor-successor pair.<sup>6</sup> However, his writings contain at least some general considerations about conceptual continuity.

Sellars discusses conceptual continuity already in 1958 in “Counterfactuals, Dispositions, and the Causal Modalities.”<sup>7</sup> He claims that a certain indeterminacy is built into our kind concepts and that it is part of scientific methodology to keep these concepts flexible:

scientific terms have, as part of their logic a “line of retreat” as well as a “plan of advance”—a fact which makes meaningful the claim that in an important sense A and B are the “*same*” properties they were “before” [before conceptual developments changed the meaning of “A” and “B”].  
(CDCM, §86; my emphasis)

Sellars speaks of terms for properties here, but in general, he emphasizes this flexibility for what he calls thing-kind terms (such as •salt•, •dog•, or •black hole•).

Adopting a new inference pattern changes the meanings of the terms involved (as in our case of whales above; see CDCM, §86). But, as the passage above suggests, even after replacing the inference rule expressed in “Whales are fish” with that expressed in “Whales are mammals,” users of “whale” will still be speaking about the same kind as users before the change. The possibility of change of this type is internal to our kind-concepts.<sup>8</sup> This approach raises several questions. Sellars understands the meaning of a term and the content of the concept expressed by it as the inferential role of that term. However, in CDCM, he speaks freely about changes in the inferential role and, thus, the meanings of kind-terms while maintaining that, on some other level, the kind-concept remains stable. The idea seems to be that on a fine-grained level, meanings change, while there is stability on a more coarse-grained level.

However, the metaphors of lines of retreat and plans of advance help little to clarify how Sellars can maintain all this and combine it with his inferentialism. Sellars’s later considerations about relevant similarities between inferential roles (see below) might be more helpful in addressing this issue.<sup>9</sup>

Besides, the approach from CDCM does not seem encompassing enough to address whether there can be continuity between concepts for observable objects or properties and theoretical concepts for unobservable objects or properties, a thought central to Sellars’s scientific realism. The leeway afforded to a concept for an observable kind by its “plan of advance” and “line of retreat” might not be flexible enough to cover reconceptualization through concepts for unobservable things. Reconceptualization of this kind is a more radical change in our concepts than adding or subtracting single inference rules. Still, Sellars wants to claim that reconceptualization is a type of conceptual continuity (WSNDL, 338).

### *Reconceptualization and “what things really are”*

Soon after CDCM, Sellars offered tools for thinking about cases of more radical conceptual change, e.g., changes in the categories to which certain things are understood to belong. At the beginning of the 1960s, his favored notion for analyzing conceptual continuity between observational and theoretical conceptual frameworks is the concept of correspondence rules.<sup>10</sup> One of his examples of a correspondence rule is the following:

Temperature of gas in region R is such and such  $\leftrightarrow$  Mean kinetic energy of molecules in R is such and such.

(TE, §17)<sup>11</sup>

Correspondence rules are “candidates for definitions” of expressions in a predecessor conceptual framework in terms of a successor

conceptual framework. The predecessor-successor pair might consist of our commonsense framework and a theoretical scientific framework or of two theoretical frameworks (such as chemistry and microphysics). Speaking about the former case, Sellars claims that correspondence rules can be “regarded as statements to the effect that certain redefinitions of observation terms would be in principle acceptable” (LT, §53).<sup>12</sup>

In the material mode, correspondence rules can be expressed in identity statements like “Temperature is (really) the kinetic energy of molecules” or “Gases are (really) clouds of molecules.” I want to briefly discuss statements of this type since they are indirectly connected to our problem of truth. In the formal mode, these statements can be formulated as statements about conceptual similarities and thus conceptual continuity. In this guise, they appear in many interpretations of Sellars’s concept of ideal truth. What enables us to form the idea of a Peircean conceptual scheme, i.e., the scheme in relation to which ideal truth is defined, is that we can conceive of it as a successor to our current scheme, as a scheme which emerges in a process of continuous conceptual development from our scheme. I want to show, first, that statements like “Gases are really clouds of molecules” are covertly metalinguistic for Sellars and speak about conceptual continuities, but second, that this means that they are sensitive to context. They can be true in one context but false in another. This is not generally taken into account, i.e., authors discussing Sellars’s concept of ideal truth tend to characterize rational conceptual development as generating a unique line of increasingly adequate concepts that can be unequivocally related to each other as counterparts or predecessor and successor (see, e.g., Rosenberg 1988; Seibt 2007).<sup>13</sup>

Let us return to our identity statements. For Sellars, there is a hidden complexity in such statements. Understanding the statement that gases are really clouds of molecules as a simple identity statement would run into several problems. Identity statements are symmetrical but our statement has an asymmetrical aspect. We want to say that gases are really clouds of molecules, not that clouds of molecules are really gases. Also, gases have different persistence conditions from clouds of molecules: an amount of gas might persist even if the specific agglomeration of molecules ceases to exist because, say, some molecule was replaced by a different one. That would make the identity statement false, contrary to what Sellars wants to affirm.<sup>14</sup>

However, according to Sellars, the identity statement above is more complex than we might think at first sight. What it says is

Gases as reconceived by a good scientific theory are identical with clouds of molecules.

Sellars writes about his notorious example of a pink ice cube:

The “manifest” ice cube is “identical with” a system of micro-physical particles in the complicated sense that in this successor framework, the ice cube concept would be defined in terms of micro-physical particles, so that ice cubes as *thus conceived* would be *literally* identical with systems of microphysical particles.

(SSIS, 407; Sellars’s emphases)<sup>15</sup>

This addresses the worries mentioned above. If a good scientific theory reconceives gases as clouds of molecules, the identity statement is trivially true. The problem of different persistence conditions disappears since gases as reconceived by scientific theory have the same persistence conditions as clouds of molecules. And even though the identity statement is symmetrical, the desired asymmetry is captured in the idea that gases are reconceived as clouds of molecules and not *vice versa*. However, much depends now on what it means to be “reconceived by a good scientific theory.”

I want to look at what statements like “As are really Bs” say in the formal mode in a way that makes their relation to the problem of conceptual continuity more transparent than their rendering as correspondence rules.<sup>16</sup> Sellars himself asserts that such covertly complex identity statements like “Dephlogisticated air is really oxygen” are the material-mode counterparts of metalinguistic statements about conceptual successors. For example, the statement that concepts related to neural activity are the scientific successors, i.e., the successors in a more adequate conceptual scheme, to the commonsense concept of sensible qualities “would appear in the material mode as the claim that the sensible qualities of things *really* are a dimension of neural activity” (LT, §56; Sellars’s emphasis). So, we can reconstruct the statement above in the formal mode as

•Oxygen•s (in our conceptual scheme) are the conceptual successors to •dephlogisticated air•s in CS<sub>1750</sub> and our conceptual scheme is more adequate than CS<sub>1750</sub>.

Operating with Sellars’s concept of relevant similarity, we can also formulate this as:

•Dephlogisticated air•s in CS<sub>1750</sub> are relevantly similar to •oxygen•s (in our conceptual scheme) and our conceptual scheme is more adequate than CS<sub>1750</sub>.<sup>17</sup>

In the 1970s, Sellars made several claims directly relevant to this metalinguistic understanding of statements about “what something really



is.” These are part of his reaction to the nascent semantic externalism advocated by Hilary Putnam and Saul Kripke. There was an important exchange of opinions between Sellars and Putnam in 1974, which was part of a symposium about Sellars’s “Meaning as Functional Classification” (in particular RDP). In an early formulation of semantic externalism, Putnam claims in his discussion of MFC (Putnam 1974) that what our term “gold” refers to is not determined by the rules governing our use of “gold.” Therefore, since meaning determines extension, the meaning of “gold” cannot be determined by the rules governing its use. According to Putnam’s externalism, natural-kind terms like “gold” or “water” refer to stuff that is in a relevant way like the stuff which we were in causal contact with when we introduced these terms.

Sellars expresses cautious sympathy with Putnam’s ideas. He suggests that the term “gold” refers to “what gold really is:”

Does the word “gold” refer to what gold *really* is? [...] The answer is, in a sense which requires careful explication: Yes.

(RDP, 461; Sellars’s emphasis)

However, he proposes to understand “what gold really is” as a covertly metalinguistic notion, although he expresses this somewhat misleadingly:

Thus, what gold really is is not an *extra-linguistic object*, but rather the *successor substance sortal* which would inherit, in developed form, the role of the word “gold” as it functions in science today. It would belong to a successor framework which, if it came to be realized, would satisfy the as yet ill-defined criteria which constitute the regulative idea of an ideally explanatory framework [...].

(RDP, 462; Sellars’s emphases)

Sellars suggests that what gold really is is a “successor substance sortal,” i.e., a conceptual item. Despite his sympathy towards externalism, he tries to avoid the idea of things having “real essences” understood as entities in the world (RDP, 462). Rather, what we mean by “real essences” can be understood in terms of the conceptual successors to our current kind concepts or stuff concepts in the ultimate, Peircean conceptual scheme.

It seems a bit puzzling that Sellars claims, judging by the two passages above, that “gold” *refers* to an ultimate conceptual successor to our current concept of gold. Whatever we want to say about the reference of the word “gold,” it seems hardly defensible to claim that it refers to a concept (*pace* Frege). What Sellars might have in mind is that the extension of our term “gold” is the extension of its conceptual successor in the Peircean scheme. For this reason, Matsui (2021) calls Sellars’s position an “ideal successor

externalism”: the extension of a term like “gold” is not determined by our current conceptual rules or mental states, not even those of our current experts on gold, but by the rules of an ideal successor framework, i.e., the Peircean scheme. When we speak in the material mode about what gold really is, we are better understood as speaking in the formal mode about the ultimate, Peircean successor concept to our current concept of gold.

This is an instance of Sellars’s general strategy of understanding talk about purported semantic language-world relations such as meaning, denotation, or reference as covert talk about conceptual schemes and their internal structure or the relations between them. However, it also highlights what maneuvering space Sellars has at his disposal concerning conceptual continuity. If we take what Sellars claims in his discussion with Putnam at face value, he can merely appeal to relations between conceptual schemes in accounting for conceptual continuity. He cannot point to something external to these schemes to support claims about conceptual continuity. For example, he could not say, in an informative way, that the expressions “dephlogisticated air” and “oxygen” are continuous *because* they both refer to the same stuff in the world. Based on Sellars’s reasoning above, the claim that both these expressions refer to the same stuff would have to mean that both have the same conceptual successor in the Peircean conceptual scheme (and similarly for the idea that our uses of “dephlogisticated air” and “oxygen” were or are caused by the same stuff). This latter claim might be true, but it does not help us understand conceptual continuity. When we speak about successor concepts in the Peircean scheme, we already appeal to conceptual continuity, i.e., we presuppose an understanding of this concept.

Sellars’s metalinguistic take on statements like “Gases are (really) clouds of molecules” or “Gold is (really) a chemical element with atomic number 79” puts much explanatory weight on notions like reconceptualization, conceptual successorship, and conceptual continuity. He also owes us an account of what makes for good, acceptable scientific theories. I will discuss the first question here and return to the second in Section 4.3.

### *Conceptual continuity and context sensitivity*

Sellars recognizes that the question of what requirements there are for two concepts to count as a predecessor-successor pair is central to his approach, not only concerning ideal truth but also scientific realism. However, he never directly tackles the issue and calls it “a difficult and demanding task which I have scarcely attempted” (SSIS, 407).<sup>18</sup> My aim here is not to develop such a theory. Ongoing discussions in conceptual engineering about Strawson’s challenge (e.g., Cappelen 2018, pt. III) show that even Sellars might have underestimated the complexity of the question. I merely

want to show that statements about conceptual successorship ought to count as context-sensitive, given Sellars's approach to meaning statements. The constraints on conceptual change that might be introduced based on Sellars's thought do not seem able to eliminate this context-sensitive element. This would at least partly explain why formulating a theory of conceptual continuity is so difficult.

It will help to compare the problem of relating two conceptual schemes diachronically to each other with the synchronic case of translating between two coexisting languages or conceptual schemes. In contrast to Quine, Sellars never says much about translation as a process.<sup>19</sup> Instead, he works with the products of this process, i.e., with meaning statements. An example of such a meaning statement is

“Rot” (in German) means red.

Sellars analyses this statement as

“Rot”s (in German) are •red•s.

The latter statement says that German expressions with the design “rot” have the same or a similar functional role in German as the expression “red” in the base language, in this case in English (see Section 2.1).

For Sellars, the ability to use meaning statements like the above correctly is a sufficient condition for understanding at least part of another language.<sup>20</sup> Therefore, if a meaning statement is correct, it reflects (synchronic) continuity of a certain sort between the two expressions in question, i.e., translatability. Someone who uses such a meaning statement correctly shows that she understands the expression for which the meaning is given (“rot” in our case).

What is crucial for us here is Sellars's claim that for a meaning statement to be true, it is often sufficient that the functional roles of the expressions involved are merely similar, not identical. This similarity needs to be *relevant* in the given case. Sellars does not spell out to what extent the roles of the two expressions need to be similar to count as similar enough for the meaning statement to be true. He also does not specify what this similarity needs to be relevant *for*. However, he claims that “relevant” means “deemed relevant” in a context (MFC, 428), a claim which indicates that what counts as relevant may be based on diverse criteria. In a footnote, Sellars expands on this:

Note that the criteria for these sortals are flexible, and context dependent. What counts as an •or• in one classificatory context may be classified as *like* an •or• in another. If Germans were to use “oder” only

in the inclusive sense, and we were to use “or” only in the exclusive sense, we might, nevertheless, for some purposes, classify “oder”s as •or•s, taking as our criteria what the two functions of “or” as it is *actually* used have in common. In this case “•or•” would be a *generic* functional classification, and we would distinguish its inclusive and exclusive species, though the only species for which we had an illustrating classification would be the latter. In other contexts the criteria for being an •or• might be more specific, thus to function *exactly* as do the exclusive “or”s of the background language. In this case “oder”s would not be •or•s, though they would, of course be functionally *similar*.

(MFC, n. 12; Sellars’s emphases)<sup>21</sup>

According to what Sellars asserts in this passage and elsewhere, meaning statements are context-sensitive in several ways. First, what linguistic function is picked out by the dot-quoted expression depends on a contextually determined background or base language. “•Simultaneous•” might pick out a generic •simultaneous•, a Newtonian •simultaneous•, or a relativistic •simultaneous• depending on what the background language is (see Section 2.1, MFC, n. 14). Second, what aspect of the function is considered relevant in the context and the extent to which the two functional roles under consideration must be similar for the meaning statement to be true depends on the point of making the meaning statement (MFC, 435; NAO, chap. 4 §136; see also TC, §18.1).

The second way of being context-sensitive is especially significant for us here. Even after we have contextually determined whether, e.g., our •or• is an inclusive •or• or an exclusive •or•, the truth value of our meaning statement might still depend on what functional aspect of •or• is relevant in the respective context. In line with Sellars’s linguistic fiction from the passage above, let us assume that Germans use “oder” only in an inclusive sense, and English speakers use “or” only in an exclusive sense. In one context, a statement like

German “oder”s are •or•s

may then be considered true, e.g., in an introductory German course. In other contexts, e.g., in an advanced philosophy class on Kant’s first Critique, where the original German text is read, it may be considered false. In the two contexts, different aspects of the function of •or•s are considered relevant for the truth of the meaning statement and different degrees of overlap in function are required.

As in the case of synchronic translation, Sellars thinks that mere similarity of function is sufficient also for the truth of diachronic meaning statements, i.e., statements translating between conceptual schemes or

languages existing at different times. Indeed, he thinks that such an attitude is crucial:

[P]rovision can be made for degrees of likeness of function—indeed *must* be made, not only if the account is to be realistic but if the evolution of conceptual frameworks is to be taken into account, and, hence, the “identity” of our framework with the more adequate frameworks of the future, which must be an element in any penetrating account of truth.

(SM, chap. IV n. 16; Sellars’s emphasis)

To be an  $\bullet f \bullet$  (stand for *f*-ness) does not require in this context that the expression to be classified plays the identical *determinate* role currently played by “*f*”, but that its function in the earlier stage of the language is sufficiently similar to the current function of “*f*” to warrant classifying them together.

(SM, chap. V 47; Sellars’s emphasis)

The cases that Sellars discusses when he discusses diachronic translation are slightly different from those that he discusses regarding synchronic translation. In synchronic translation, he tends to speak about the functional classification of linguistic items across *languages*, while he often speaks about functional classification across *conceptual schemes* regarding diachronic translation. At least in SM, Sellars treats languages as embodiments of conceptual schemes and claims that different languages (e.g., English and German) can embody the same conceptual scheme (SM, chap. V §71). That might raise doubts about whether we can align Sellars’s diachronic approach to translation with his synchronic approach, as I want to do here.

However, as the second passage cited above and its context make clear, Sellars’s use of the terms “language” and “conceptual scheme” is not sharply compartmentalized (in the context of the second passage, Sellars should talk about “earlier stages of the conceptual scheme,” strictly speaking). Also, as has already been argued, statements about the functional classification of linguistic expressions are context-sensitive for Sellars. If this is true, the distinction between the case where we say that two languages embody the same conceptual scheme and the case where we say that these two languages embody different, although similar, conceptual schemes is not sharp. What counts as the embodiment of the same function by two sign-designs and, therefore, the expression of the same concept, in one context may count as the embodiment of different functions, and thus the expression of different concepts, in another context.

So, Sellars arguably operates with the same notion of relevant similarity for diachronic translation as for synchronic translation. Thus, he ought

to understand diachronic meaning statements, i.e., statements relating the functional roles of conceptual schemes at different times to each other, as similarly sensitive to context as synchronic meaning statements. In contexts where the two expressions count as relevantly similar, it might, therefore, be true to say

•Dephlogisticated air•s in CS<sub>1750</sub> are •oxygen•s

and thus also

Dephlogisticated air is really oxygen.

However, in contexts where other criteria for relevant similarity apply, these statements might be false.

Therefore, we could truly claim in some contexts that dephlogisticated air is not really oxygen (and that it is not really anything, i.e., that dephlogisticated air does not exist). In other contexts, we might correctly understand •oxygen•s as our successors to •dephlogisticated air•s. We could then say that the expression “dephlogisticated air” latched onto something that exists but that the latter is more adequately conceived in the way we do now, i.e., as oxygen. As these cross-scheme classifications are context-sensitive, there is no context-invariant answer to the question of what dephlogisticated air really is and whether there is something that it really is at all. We might reconstruct different paths of conceptual continuity in conceptual development, different accounts of which steps in the development of scientific theories were continuous and which discontinuous, depending on the criteria for continuity deemed relevant in a given context and the degree of overlap in the functional roles required in that context.<sup>22</sup>

For example, Sellars suggests himself that •oxygen• is a successor concept to •dephlogisticated air•, i.e., that •dephlogisticated air•s are •oxygen•s. He argues that

[...] in a certain sense phlogiston is still there: it lived on in Lavoisier chemistry. Thus, a scientific realist can suppose that scientific objects really exist while yet saying that the way in which they continue to be conceived may involve quite revolutionary changes. Some of the explanatory power that objects in one theory have may be carried out in the explanatory devices of a successor theory without any neat one-to-one mapping of objects.

(WSNDL, 243)

What is relevant here for Sellars seems to be a similarity in the explanatory role of the two concepts in their respective combustion theories. However,

based on different considerations about what is relevant, in this case, the causal properties ascribed to objects and kinds, Anjan Chakravartty (2007, 55–56) claims that we should see the concepts •dephlogisticated air• and •oxygen• as discontinuous. For a different example on the liberal side, Stathis Psillos makes the controversial claim that “luminiferous ether” and “electromagnetic field” refer to the same thing (Psillos 1999, 286), a claim that depends on what is considered relevant in the context in which Psillos writes. Psillos appeals to an overlap in the “kind-constituting properties” of the two posits—for Sellars, a subset of the expressions of the material rules of inference governing the two terms.

Importantly, Sellars claims that there is room for a *decision* in such cases:

it can make very good sense to say that a piece in a certain game is a pawn without implying that it works in *exactly* the same way as pawns do in standard chess. Is a pawn which cannot capture *en passant* a pawn? Is the game in which it belongs chess? There is room here for a decision. More important is the fact that there is room *for argument*. Considerations of various kinds can be advanced, the most interesting of which pertain to *the point* of classifying games in one way rather than another.

(SM, chap. V §38; Sellars’s emphases)<sup>23</sup>

That does not mean that arbitrary stories about conceptual continuity could be told. It merely means that what is considered a correct story depends on the criteria we deem relevant in the respective situation. If we replaced the concept •cat• with a concept like •chair•, this would hardly count as a continuous conceptual change in any context. In the passage above, Sellars emphasizes that there is not only room for decision when it comes to functional classification but also for argument.<sup>24</sup> We can advance reasons for the truth of synchronic or diachronic meaning statements or against it. These reasons will typically relate to similarities in functional roles or functions more broadly conceived (see, e.g., Thomasson 2020), or similarities in explanatory roles. Thus, even if what counts as continuous conceptual change is context-sensitive, this is not to say that there are *no* criteria. However, it depends on context what criteria are decisive and to what extent, e.g., what parts of the functional or explanatory roles of two concepts need to overlap for conceptual continuity.

That might look like an unsatisfying position. Although there are criteria for conceptual continuity, these criteria are context-sensitive, and we might not be able to give a unified account of them. However, as is evident from the extensive discussions on conceptual continuity within conceptual engineering, nobody has come close to such a unified account. So, Sellars is not alone in this respect.

I now want to examine some of the constraints on conceptual continuity suggested by Sellars or his readers. This is because the criteria decisive for diachronic conceptual continuity seem to be more narrowly constrained than those relevant when it comes to synchronic functional classification. Thus, there might be room for the claim that these constraints on diachronic conceptual continuity are narrow enough to eliminate context sensitivity in the case of diachronic functional classification. However, I will argue that these constraints cannot remove the context sensitivity of Sellars's approach.

In connection with diachronic conceptual classification, Sellars sometimes operates with the notion of conceptual "families." In SM, he formulates several definitions which relate different conceptual schemes to each other, e.g., to make the truth-predicate applicable across schemes. These definitions rest on the notion of a family of functional roles, i.e., families of propositions or families of concepts. For example:

PROP<sub>*i*</sub> (in CS<sub>*i*</sub>) is true  $\leftrightarrow$  for some PRFAM and for some PROP, PROP belongs to CSO, PROP<sub>*i*</sub> (in CS<sub>*i*</sub>)  $\subset$  PRFAM, PROP  $\subset$  PRFAM, and PROP is true.

(SM, chap. V §52)

"PRFAM" stands for a family of propositions. The definition says that a proposition in some conceptual scheme (CS<sub>*i*</sub>) is true (in Sellars's immanent sense) if and only if this proposition belongs to the same family of propositions as a proposition in our conceptual scheme (CSO) which is true (i.e., correctly assertible by us). This definition extends the applicability of the truth-predicate from conceptual items in our scheme to related items in other schemes.

Families of propositions or families of concepts are sets of concepts or propositions from different conceptual schemes that can be related to each other as functional counterparts or pairwise as predecessor and successor. Sellars's principle above and other similar principles in SM rely heavily on this notion. However, he does not explain what criteria of similarity two concepts need to meet to belong to one family. Instead, he calls the notion of a family of concepts an "informal and intuitive notion" (SM, chap. V §62). This seems like an evasive move, given that Sellars elsewhere considers the problem of spelling out the notion of conceptual counterparts complex and centrally important (SSIS, 407). It is also doubtful whether the intuitive concept of a conceptual family would guarantee that there is an exclusive way of dividing concepts diachronically into families. This is, to some extent, an empirical question. Still, it is not evident that our intuitive notion of conceptual similarity offers sufficiently sharp criteria to effect such an exclusive division (and Sellars's own considerations about



the context sensitivity of meaning statements provide reasons that this is not so).

There are passages where Sellars seems to commit himself to more specific constraints on conceptual successorship, like the following:

Are the individual variables we use tied exclusively to the individual senses of our current conceptual structure? Are the predicate variables we use tied exclusively to our conceptual resources? It is obvious that the only *cash* we have for these variables is to be found in our current conceptual structure, but it is a mistake to think that the substituends for a variable are limited to the constants which are here-now possessions of an instantaneous cross-section of language users. The identity of a language through time must be taken seriously, and a distinction drawn between the *logical* or “formal” criteria of individuality which apply to any descriptive conceptual framework, and the more specific (material) criteria in terms of which individuals are identified in specific conceptual frameworks; and similarly, between the logical criteria which differentiate, say, *n*-adic from *m*-adic predicates generally, from the conceptual criteria (material rules) which give distinctive conceptual content to predicates which have the same purely logical status.

(SM, chap. V §66; Sellars’s emphases)

We can extract the following idea from this passage: Whatever else constrains what counts as a successor concept to another concept, in the case of singular terms, these constraints must include “the logical or ‘formal’ criteria of individuality which apply to any descriptive conceptual framework.” For predicate concepts, they include a constancy in adicity (so a successor for an *n*-adic concept must also be an *n*-adic concept).

But these formal criteria seem both too weak and too strong (see also Rosenberg 1975, §46; Rorty 1970, 69). The “purely logical criteria of individuality” tell us what criteria an expression needs to meet to count as an individual constant. But that seems to give us no constraint at all on whether one individual constant is the successor of another. At the same time, constancy in the adicity of predicates seems too strong to be a necessary condition for conceptual continuity. As Sellars himself remarks:

the concepts in terms of which the objects of the common-sense or “manifest” image are identified have “successor” concepts in the scientific image, and, correspondingly the individual concepts of the manifest image have counterparts in the scientific image which, *however different in logical structure*, can legitimately be regarded as their “successors.”

(SM, chap. V §102; my emphasis)

Sellars thinks there may be deep differences in “the logical structure” of predecessor and successor concepts. It is not transparent whether Sellars would want to include, e.g., the adicity of predicate concepts in these differences in logical structure. However, he never advances an argument as to why successor predicate concepts could not have a different adicity than their predecessors, why, for example, some monadic properties could not turn out to be better reconceived as relational properties.<sup>25</sup>

Sellars sometimes suggests that on the level of whole conceptual schemes, what counts as a successor to what is constrained by explanatory relations:

Characteristic of the successor framework is that it explains why the preceding framework is incorrect; it explains why it leads to false observations, observations that are not confirmed. Furthermore, a good successor theory not only explains the flaws of its predecessor, but it also explains why it works as well as it did.

(WSNDL, 185)<sup>26</sup>

In the discussion about Rosenberg (Section 3.1), I have already raised doubts about whether these demands on what counts as a good successor theory are reasonable as many theory changes generally perceived as progressive do not fulfill these criteria. Also, Sellars indicates right after this passage that reconstructing these explanatory successor relationships between *frameworks* presupposes successor-predecessor relations between single concepts. Thus, his appeal to explanatory continuity between conceptual schemes or theories rests on his account of conceptual successorship for single concepts, which, as we have seen, seems to contain a context-sensitive element.

Seibt (2007, 74) suggests that we can speak about successor relations between concepts if the roles of the two concepts in explanation are similar. In our example, this would be to say that the explanatory roles of •dephlogisticated air•s and •oxygen•s in their respective combustion theories are similar and that this is the reason for their counting as conceptual predecessors and successors to each other. However, context sensitivity would arguably be present at this level, as well. There are similarities and differences in explanatory functions which might be more or less salient in a given context. Appealing to explanatory roles does not sufficiently narrow down what is relevant to make the functional classifications in question context-independent.

One way of operationalizing that two concepts have a similar explanatory role is to show that hypotheses containing, e.g., “dephlogisticated air” and “oxygen” explain similar observational data or other hypotheses (as shown in Thagard 1989, 444–45). However, what overlap is needed to

assign two concepts a similar explanatory function does not seem context-invariant. In Thagard's analysis, which is based on Lavoisier's arguments, only two out of eight relevant observations can be explained both by an appeal to oxidization and an appeal to dephlogistication. The other six are explained merely by one of the respective combustion theories. Is this enough to claim that, e.g., "oxidization" is a conceptual successor to "dephlogistication"? The answer might depend on what is considered relevant in the context where we make such a claim, e.g., on whether some explained phenomena count as more salient than others in that context.<sup>27</sup>

In some places, Sellars attempts to articulate more precisely how we relate concepts in earlier and later conceptual schemes to each other. According to him, we often form more generic functional sortals for these purposes, i.e., sortals that include earlier and later expressions as special cases (see also SM, chap. V §47 cited above). For example, we can form a generic functional sortal  $\bullet$ triangular $\bullet$  covering the different concepts of triangularity developed over time. We can then distinguish different, more specific concepts of triangularity. Thus,  $\bullet$ triangular $\bullet_{\text{Euclid}}$ s are  $\bullet$ triangular $\bullet$ s and  $\bullet$ triangular $\bullet_{\text{Riemann}}$ s are  $\bullet$ triangular $\bullet$ s. Sellars is not very explicit about how we form these generic concepts. However, the idea seems to be that there is a subclass of correct material inferences shared by more specific concepts of triangularity. This subclass constitutes the content of the generic  $\bullet$ triangular $\bullet$ .

Sellars illustrates this idea by the following classificatory statements. They concern abstract singular terms but could be applied to other types of expressions as well:

Thus, as the historian of science looks back he can, on the one hand, make statements of the form

"- - -" (in L1800) stood for f-ness, i.e., were  $\bullet$ f $\bullet$ s

"- - -" (in L 1860) stood for f-ness, i.e., were  $\bullet$ f $\bullet$ s

"- - -" (in L 1966) stood for f-ness, i.e., were  $\bullet$ f $\bullet$ s

and, on the other hand, introduce qualifiers corresponding to the 'Euclidean' and 'Riemannian' of our previous example.

(SM, chap. V §45)

However, the practice of abstracting more generic functional sortals, in this case  $\bullet$ f $\bullet$ , and treating expressions like "f"<sub>1800</sub>, "f"<sub>1860</sub>, or "f"<sub>2024</sub> as more specific instances of the general concept allows us, again, to truly say *both*, relative to what is relevant in different contexts

"f"<sub>1800</sub>s are  $\bullet$ f $\bullet$ <sub>2024</sub>s (because both are  $\bullet$ f $\bullet$ s)

and

“ $f$ ”<sub>1800s</sub> are not  $\bullet f \bullet$ <sub>2024s</sub> (because they differ in some relevant aspects, even though both may be  $\bullet f \bullet s$ )

Someone might object that in both contexts, we can at least say that “ $f$ ”<sub>1800s</sub> and “ $f$ ”<sub>2024s</sub> are both  $\bullet f \bullet s$ , i.e., that they are an instance of this more general functional class, and that this might be enough to ensure continuity between “ $f$ ”<sub>1800s</sub> and “ $f$ ”<sub>2024s</sub>. Every item that counts as an  $\bullet f \bullet$  throughout conceptual development would be conceptually continuous with every other such item. However, this does not guarantee a context-invariant notion of conceptual continuity. What counts as an instance of a generic  $\bullet f \bullet$ , i.e., the set of inference principles characterizing generic  $\bullet f \bullet s$ , changes over time. A generic concept of motion, e.g., the generic  $\bullet \text{motion} \bullet$ , formed after the move from an Aristotelian concept of motion to a Newtonian concept, would have changed after the further move to a relativistic concept of motion.

Since an increasing number of specific concepts must be included under one generic concept with ongoing conceptual development, it is reasonable to assume that the set of inference principles characterizing the generic concept tends to shrink over time. Furthermore, what past conceptual items to include when we abstract these generic concepts is a matter of decision. Should we include an Aristotelian concept of motion when we form the generic  $\bullet \text{motion} \bullet$ ? Different factors might be relevant in different contexts. Similar considerations concern the degree of overlap in the inferential role between former and later concepts that is needed to justify the abstraction of a generic concept. Does  $\bullet \text{ether} \bullet$  share enough of its inferential potential with  $\bullet \text{electromagnetic field} \bullet$  to warrant the introduction of a generic concept? This might depend on what is relevant for us when we ask this question. Appealing to Sellars’s notion of generic concepts does not help to eliminate the context-sensitive factor in statements about conceptual continuity. Thus, it seems that none of the constraints on conceptual continuity offered in Sellars’s writings removes this context-sensitive element.

Interpretations of Sellars’s approach to ideal truth, like those discussed in Section 3.1, typically rely on the notion of conceptual continuity. Rosenberg’s account depends on the idea that there is one way of correctly reconstructing a continuous path of theory change. Seiberth makes substantial use of Sellars’s notion of conceptual counterparts and links these to referential invariance to say that, on some level, users of the Peircean conceptual scheme refer to the same things that we do.

Also, conceptual continuity is central in “projectivist” accounts of Sellars’s concept of ideal truth (e.g., Levine 2007; O’Shea 2007; Seibt 2007). These are based on the idea that we understand conceptual development as it has already occurred to be a development towards more adequacy

and explanatory coherence and that we can then use this understanding to project an ideal limit of adequacy or ideal truth. For instance, O'Shea, writing about the scientific image ("SI," which we can equate with the Peircean scheme here), claims the following:

[T]he ideal SI is a projection constructed out of the relationships examined above between predecessor theories and improved successor theories, on which we *do* have a grip. In effect we first project as a goal of explanation that the propositions of our own best current yet explanatorily imperfect SI-theories stand in a parallel relationship to potential improved successor SI-theories, as  $p$  stood to its counterpart  $p^*$  in the example concerning gases above. On this basis we can form the idea, for example, that what is *really true* is that gases are only approximately as characterized by proposition  $p^*$  in our current SI framework, which is to say that  $p^*$  would have a counterpart proposition,  $p^{**}$ , in the *ideal* SI that plays a relevantly similar role to the role that  $p^*$  plays in the kinetic-molecular theory of gases as we know it.

(O'Shea 2007, 162; O'Shea's emphases)

This approach does not make it clear what it means to construct a projection of an ideally adequate conceptual framework (in contrast to constructing a projection of a conceptual framework that would be "merely" more adequate than ours, see Section 3.1). More importantly for the discussion here, however, the approach seems to build on the idea that there is one way of reconstructing the relationship between a formerly accepted proposition  $p$  and a currently accepted proposition  $p^*$  and thus of projecting it into the relationship between our  $p^*$  and a potentially more adequate future counterpart  $p^{**}$ . In a context where we do not treat  $p$  and  $p^*$  as continuous, no such projection could be effected.<sup>28</sup> This is not to argue against the idea of "projection," but to claim that if we recognize the context-sensitive element in Sellars's account of conceptual continuity, such projectivist accounts lose some of their ostensible robustness since what projections we are ready to make now depends on our criteria of relevance for conceptual similarity in a given context.

As we have seen, Sellars's commitments about statements concerning the functional classification of linguistic expressions suggest that there are various ways of understanding conceptual development as continuous or discontinuous, which could count as correct in an appropriate context. This also concerns statements about what something really is or what something ultimately refers to since these are covertly metalinguistic functional-classificatory statements.<sup>29</sup> This puts pressure on readings of Sellars which assume a unique way of reconstructing continuous conceptual change or of grouping concepts into sets of counterpart concepts, at

least pressure to show how they can accommodate the context-sensitive element in Sellars's approach.

This is not to say that Sellars's ideas about conceptual continuity are unimportant. They are central, for example, to his scientific realism. According to Sellars's version of scientific realism, what there ultimately is are theoretical scientific entities. However, theoretical scientific concepts are related to our commonsense concepts in such a way that we can simultaneously say that the observable objects of our commonsense world exist as reconceived by science (SM, chap. V §102). This thought is based on the idea that our commonsense concepts have successors in theoretical science. Conceptual continuity is also important if we want to claim, as Sellars seems to do (SM, chap. V §73), that some of our statements here and now can be (approximately) ideally true, i.e., those with assertible counterparts in the Peircean conceptual scheme. The considerations in this chapter imply that the truth of such claims depends on the context in which we make them.

Constructing a unique path of conceptual continuity seems especially important if we want to appeal to the concept of convergence to account for the concept of ideal truth or if we understand Sellars's ideal, Peircean conceptual scheme as not essentially related to our own scheme and therefore in need of being related to it otherwise. Now, I will turn to this relation between the Peircean conceptual scheme and "our" conceptual scheme.

#### 4.2 The Peircean scheme as a regulative ideal

In Chapter 3, we saw that it is difficult to circumvent the notion of a Peircean conceptual scheme in Sellars's account of ideal truth. All intelligible accounts of, e.g., ideally adequate picturing or ideally efficient agency had to appeal to this notion at some point. But obviously, this concept itself needs clarification. When we understand it, we can define Sellars's concept of ideal truth directly in terms of it as semantic assertibility according to the Peircean conceptual scheme (SM, chap. V §75; WSNDL, 186).

Sellars claims in many places that the Peircean conceptual scheme must be understood as a regulative ideal. He calls the Peircean framework "the regulative ideal which defines our concepts of ideal truth and reality" (SM, chap. V §95).<sup>30</sup> He elaborates more on this in the following passage from a lecture given in 1969:

To say that a conceptual framework is a regulative ideal is to say that no questions arise which it can't cope with. Of course, it is always logically possible that more and more question [sic] should arise, but a regulative ideal is one which, so to speak, arrives at a kind of stability so that there are no questions, which can be generated, that it cannot resolve. I

indicated that this regulative ideal defines what we mean by the phrase ‘what really exists’ and defines what we mean by ‘really true’. To say of a statement in our framework that it is really true is roughly to say that its successor in the ideal framework would be semantically assertable in accordance with the rules of that framework.

(WSNDL, 186)

It is not controversial that Sellars conceived of his ultimate conceptual scheme as a regulative ideal and that this is a key to understanding his concept of ideal truth.<sup>31</sup> However, I will argue that we can spell out the status of this regulative ideal in subtly different ways and that this can affect how we understand Sellars’s notion of ideal truth. Specifically, I claim that we should not understand Sellars’s regulative ideal as merely providing us with an aim for conceptual change *after* we have already adopted some conceptual scheme. Instead, we should understand this ideal as the perfect realization of a set of norms that are constitutive of *any* conceptual scheme. Therefore, adopting any conceptual scheme always already means grasping this regulative ideal (if only implicitly).

#### *The role of regulative ideals in Kant*

The *loci classici* for the concept of a regulative ideal are Kant’s first and third Critique (Kant 1987, 1998). According to Kant, a regulative ideal

always remains an idea, never to be completely carried out, but nevertheless to be followed.

(Kant 1998, A565/B593)

#### Regulative ideals

provide an indispensable standard for reason, which needs the concept of that which is entirely complete in its land, in order to assess and measure the degree and the defects of what is incomplete.

(Kant 1998, A570/B598)

Kant distinguishes the principles and categories of the understanding from the regulative ideas of reason. On one reading of Kant, only the former principles are necessary conditions for the possibility of experience. By contrast, the latter regulative ideas of reason do not constitute the concepts of objects of experience, but reason merely takes these concepts as its objects. These regulative ideas require us to seek the maximum possible unity and systematicity in how we organize the concepts that the understanding provides us with. They are, however, not necessary for the

possibility of experience. According to Kant, mistaking regulative ideas for constitutive principles leads to metaphysical claims that we have no right to make (Kant 1998, A509/B537), e.g., about the existence of God or an immortal soul.<sup>32</sup>

However, some Kant scholars want to resist this reading of Kant. Ido Geiger (2003) argues that the regulative ideas of reason are also necessary conditions of the possibility of experience and that there is textual evidence indicating that Kant thought so as well.<sup>33</sup> Regulative principles like the demand to broaden the domain in which our knowledge forms an internally connected, hierarchical system are necessary for empirical experience, according to Geiger, because

the meaning of an empirical concept can only be given by more specific empirical concepts subsumed under it; these more specific concepts give the rules for applying the higher concept to objects. Thus, to have one empirical concept is to have the regulative idea of a hierarchical system of all empirical concepts.

(Geiger 2003, 274)

Geiger thus argues against the more standard, “heuristic” reading outlined above. According to this heuristic reading, Kant’s regulative ideas are mere heuristic principles that require us to look for systematicity in instances of experience or knowledge that we already have independently from these regulative principles.<sup>34</sup>

I propose that we apply Geiger’s general strategy to Sellars’s concept of a Peircean conceptual scheme. Of course, it is an open question whether Geiger’s reading is an adequate reading of Kant or whether Kant can be given a consistent interpretation regarding the regulative principles of reason in the first place. Also, Kant’s regulative principles of reason are not entirely congruent with Sellars’s ideal of explanatory coherence. Kant’s principles, e.g., the principles of unity and manifoldness introduced in the “Appendix to the Transcendental Dialectic,” concern the systematicity and unity of our empirical concepts. The principle of unity, for example, requires us to look for one unifying causal law. However, Sellars’s ideal of explanatory coherence, which I will be focusing on here, might be realized without one unifying causal law. What comes closest to this ideal of explanatory coherence in Kant might arguably be the regulative principle of reason discussed in section VIII of the “Antinomy of Pure Reason.” In any case, I only want to adopt Geiger’s general strategy for understanding the role of Sellars’s regulative ideal rather than assimilating Sellars’s position to these details in Kant’s thought.

We can apply the contrast between the heuristic reading of Kant’s regulative ideas and the reading Geiger proposes to Sellars’s regulative ideal



of an ultimate conceptual scheme. From the former perspective, Sellars's ultimate conceptual scheme is merely an ideal that our conceptual practices should successively conform to more. These conceptual practices themselves, however, exist independently from the ideal. On this reading, we could have these conceptual practices without having the regulative ideal. The regulative ideal of an ultimate conceptual scheme merely imposes an imperative to systematize and enhance the coherence of our conceptual scheme. For instance, Rorty thinks that Sellars's motivation for introducing his regulative ideal is to ensure that conceptual change heads towards an ideal endpoint, provided we change our concepts by rational procedures (Rorty 1988). Rorty, however, prefers to think of conceptual change as a contingent process without an envisaged end point. Thus, he is committed to the idea that there can be conceptual practices without Sellars's regulative ideal.

However, Sellars provides enough textual support to give his notion of an ultimate conceptual scheme a different emphasis. Paralleling Geiger's reading of Kant, our conceptual practices cannot exist independently from this regulative ideal on this second way of understanding Sellars. Instead, Sellars's ultimate conceptual scheme is the realization of a set of norms constitutive of any conceptual scheme. We can understand pieces of human behavior as the embodiment of a conceptual scheme only if these practices conform to such norms, at least to a substantial degree.<sup>35</sup>

Willem deVries argues in his introduction to Sellars's philosophy that norms or practical truths more broadly are constitutive of certain kinds, e.g., artifacts. He also claims that this commitment harmonizes well with Sellars's thought (deVries 2005, chap. 10). According to deVries, Sellars would have seen norms like

Hammers ought to be suitable for pounding

as constitutive of what it is to be a hammer. An object to which this norm does not apply could not be a hammer, even if it were physically indistinguishable from a hammer. As deVries (2005, 272) also suggests, conceptual systems, too, can be seen as practically constituted in this way, i.e., as constituted, among other things, by certain norms.<sup>36</sup> I will argue that the norms that constitute conceptual schemes are an expression of Sellars's regulative ideal.

One such norm, central to Sellars's thought, concerns explanatory coherence. Sellars discusses this norm towards the end of one of his earlier essays, CDCM. Here, Sellars discusses explanatory coherence via an analysis of what he calls "the causal principle":

Every event has a cause.

Sellars thinks that the causal principle is not, contrary to first appearance, a descriptive claim about the world. Rather, it is what Carnap would call a “quasi-syntactical” assertion in the material mode. That means that the causal principle is covertly speaking about linguistic items by way of speaking about the world. This hidden metalinguistic character of the assertion can be made explicit in Carnap’s formal mode. In the case of the causal principle, what appears like a description of the world in the material mode is a *rule* about linguistic expressions in the formal mode. For Sellars, the formal-mode analog to causation is material inference. Thus, formulated in the formal mode, the description that every change has a cause becomes the rule that every assertible singular statement about changing things<sup>37</sup> be inferable by material inference from other assertible singular statements, or:

Our conceptual system ought to be such that any singular statement of the form “ $x \phi$ s at time  $t$ ” assertible according to this conceptual system can be inferred from other singular statements assertible according to this conceptual system.<sup>38</sup>

This is one of Sellars’s central norms about how a conceptual system should be made up. Potentially, there are further such norms. As Bonjour (1985) remarks, while the coherence of a conceptual system must be understood in terms of the formal and material inference relations among statements, there are more principles of inference than just explanatory ones, e.g., mathematical inference principles. Beyond that, other norms seem relevant to Sellars regarding his regulative ideal, such as the principle of bivalence or the norm that an ideal conceptual scheme provide a name for every particular, which Sellars introduces in discussing quantification (e.g., RNWWR, §12).<sup>39</sup> Especially these two latter principles might seem controversial. Sellars claims, for example, that bivalence analytically holds in his Peircean conceptual scheme (SM, chap. V §74). Thus, any statement formulable in this ultimate, Peircean scheme is either ideally true or ideally false. This is a strong claim, which Sellars never conclusively justifies.<sup>40</sup>

Following Peregrin (2007, 259–60), norms like the meta-conceptual norm above should be understood as negative norms. That is, this meta-conceptual norm is a norm which excludes certain states of affairs as incorrect or not aligned with the norm, in our case a state of affairs where some singular statement assertible in our language cannot be inferred from other such statements. Sellars suggests a similar understanding of rules and norms in “Language, Rules, and Behavior,” where he remarks that a norm is something that inhibits what would falsify the generalization contained in the rule (LRB, §17). For instance, a norm like “One ought to tell the

truth” contains the generalization “People always tell the truth,” and the function of the norm is to inhibit behavior that falsifies this generalization.

As Sellars suggests in LRB, the generalizations contained in rules are typically false. Still, this does not negatively impact our ability to understand rules like “One ought to tell the truth.” This is relevant to my argument here: if Sellars’s regulative ideal of a Peircean conceptual scheme is expressed in norms like the meta-conceptual norms above, norms which count as constitutive of any conceptual scheme for Sellars, we can grasp this ideal as long as we can understand the norms which express this ideal. We are now thinking of the Peircean ideal not primarily as a removed ideal limit, which we somehow need to relate to our conceptual scheme. Rather, we treat it as already operative in our here-and-now conceptual practices and as expressed in meta-conceptual rules that we can understand, even though our own scheme may fall short of realizing these norms entirely.

Because of its centrality, I will focus on the principle of explanatory coherence without claiming this to be the only norm relevant to Sellars’s regulative ideal. I want to argue for the claim that Sellars’s Peircean conceptual system should be understood as a perfect embodiment of this norm of explanatory coherence (potentially alongside other norms). However, this does not mean that this norm only defines what counts as the ultimate, Peircean conceptual scheme. Instead, it constitutes part of what it means for *any* practice to embody a conceptual scheme. Practices not subject to this norm would not count as conceptual practices.

The norm in question is a second-order norm. It is a norm about what conceptual norms to adopt. It tells us that our conceptual, inferential norms ought to be such that every assertible singular statement about changing things can be inferred from other assertible statements. That is, it guides our reasoning about which first-order conceptual norms to adopt. And much as “Hammers ought to be suitable for pounding” is constitutive of what it is to be a hammer, our metaconceptual norm is constitutive of conceptual norms and, thus, of concepts. Someone who adopts purported inferential norms without being sensitive to this principle could not count as a concept user in a full sense.<sup>41</sup>

### *Language triumphant*

Let us look at some textual evidence from Sellars to buttress this idea. I want to explore some passages from the first half of his career, particularly the essay “Counterfactuals, Dispositions, and the Causal Modalities” (CDCM). In CDCM, Sellars introduces a distinction that partly parallels his later distinction between our conceptual scheme and the Peircean ideal scheme. This is the distinction between “language militant” and “language triumphant,” drawn in analogy to the distinction between the “church

militant” and the “church triumphant” in Christian theology.<sup>42</sup> “Language militant” implies a struggle for perfection, which cannot be achieved “on earth” because of the biological, material, or practical limitations of our human or any other form of embodied life. “Language triumphant” is an ideal state, which can be achieved only in a situation free from the mentioned “earthly limitations.” However, the ideal of “language triumphant” still informs the earthly struggle, i.e., actual linguistic practice. Sellars describes the relationship between language militant and language triumphant in the following way:

Once the development of human language left the stage when linguistic changes had *causes*, but not *reasons*, and man acquired the ability to reason about his reasons, then, and this is a logical point about having the ability to reason about reasons, his language came to permit the formulation of certain propositions which, incapable of proof or disproof by empirical methods, draw, *in the heart of language militant*, a picture of *language triumphant*.

(CDCM, §108; Sellars’s emphases, except “in the heart of”)

This passage needs some comment. The concept of “language triumphant,” of a perfected, complete language, can be seen as a predecessor to the concept of a Peircean conceptual scheme introduced about ten years later in Sellars’s thinking. According to Sellars, we explicitly grasp the concept of such a perfected language when we acquire the ability to “reason about reasons.” This is the ability not only to draw inferences but also to reflect on these inferences, to evaluate them as valid or invalid, good or not good. Non-human animals and small children might exhibit different reasoning abilities, e.g., to infer  $q$  from  $p$  in accordance with *modus ponens* or infer abductively from  $q$  to  $p$ .<sup>43</sup> But that does not require an ability to explicitly grasp that  $p$  is a reason for  $q$  or to reflect on whether this reason is a good reason. The ability to reason about reasons is the ability to explicitly formulate relationships of “being a reason for” between two statements, i.e., to formulate formal and material inference principles and to evaluate them, that is, not only to formulate reasons but to assess their relevance and weight.<sup>44</sup>

Sellars further claims that when we reason about reasons, we formulate statements “incapable of proof or disproof by empirical methods.” The causal principle “Every event has a cause” (CDCM, §107) is such a statement. This statement is not, as Sellars says, a super-hypothesis about the structure of the world. Instead, as suggested above, “Every event has a cause” is the material-mode expression of an *a priori principle*, i.e., a norm. “Every event has a cause” expresses a norm in accordance with which we ought to construct our conceptual systems. Knowing that every

event has a cause is knowing what we *ought* to do in certain circumstances (CDCM, §107). Specifically, it is the principle that rules of material inference are to govern all our empirical statements about changing objects.

This leaves it still unclear why a principle like “Every event has a cause”<sup>45</sup> should be “incapable of proof or disproof by empirical methods,” as Sellars claims. It is not simply its status as a norm that makes it empirically unassailable. There are also conceptual norms of a lower order, according to Sellars, such as the one expressed in “Whales are mammals.” This statement, too, is the material-mode expression of a rule, in this case an inferential rule that licenses inferences, e.g., from “This is a whale” to “This is a mammal.” Sellars does not hesitate to call such principles *a priori* principles (see, e.g., ITSA). They are *a priori* in the sense that to have the concept of a whale, we need to accept principles like these, at least implicitly. Without the concept of a whale, we could not experience whales in Sellars’s thick, conceptualistic sense (e.g., EPM, §29). At the same time, however, it would be implausible to say that accepting statements like “Whales are mammals” is in no way susceptible to empirical investigation. When we abandon a principle like “Whales are fish” and adopt the principle “Whales are mammals,” this is at least partly due to empirical inquiries into whale biology.

Indeed, the susceptibility of such inferential rules to empirical investigation is not a matter of direct confirmation or disconfirmation for Sellars. In his view, the reasoning that connects empirical evidence and the adoption of inferential principles is more complex (see Section 4.3). But that does not change the fact that empirical inquiry is relevant when we decide whether to adopt an inference principle like “Whales are fish.” This raises the question of why the same should not be true for “Every event has a cause.”

Sellars claims that “Every event has a cause” is not simply a more general case of an inference principle like “Whales are mammals” (CDCM §107). He sees a difference in level between these two types of principles. “Whales are mammals” licenses inferences between first-order statements, e.g., between “This is a whale” and “This is a mammal.” However, “Every event has a cause” does not license inferences between first-order statements. It might look as if the principle told us to infer “This has a cause” from “This is an event.” However, contrary to grammatical appearance, these are not first-order descriptive statements, according to Sellars. He treats *cause* and *event* as metalinguistic concepts that classify conceptual items according to their function. For example, event expressions like “Caesar’s crossing the Rubicon” are covert dot-quoted expressions; in this case “•Caesar crosses the Rubicon•,” and, in the formal mode, the term “event” is a variable that takes dot-quoted linguistic items as values.<sup>46</sup> Similarly, a cause is, in the formal mode, a premise in a specific type of correct material inference.

Thus, both “Whales are mammals” and “Every event has a cause” are norms, but the former tells us how certain first-order statements ought to be connected while the latter tells us what kinds of rules of the first type we ought to adopt. Specifically, it tells us to adopt inferential rules which make every correctly assertible statement about changing things inferable from other correctly assertible statements. “Every event has a cause” is a metarule, i.e., a rule for making rules, in this case, conceptual rules.<sup>47</sup> A conceptual scheme that conformed perfectly to this rule, i.e., that provided a premise for every statement about changing things from which this statement could be correctly inferred (along with realizing other relevant principles mentioned above), would have realized Sellars’s regulative ideal.<sup>48</sup>

Seeking inferential rules that help us explain events is not a further aim we adopt after already coming to have a conceptual scheme. As Sellars emphasizes in multiple places throughout his published texts, being able to explain things, i.e., being able to draw material inferences, is necessary for having concepts. He claims that we could not describe anything without being able to locate our candidate descriptions in a “space of implications” (CDCM, §108) and that having concepts presupposes the acceptance of laws, i.e., principles of inference, which enable us to explain events (CIL).

To have a particular concept, I must be sensitive to what would be a good reason to apply the concept. For example, to have the concept •melt•, I need to be sensitive to the fact that a good reason for applying this concept to an object *a* is that I already accept the statement “*a* was put in an ambient temperature above 0°C” (as well as, e.g., “*a* is an ice cube”).<sup>49</sup> If I was not sensitive to the fact that this is a good reason for asserting “*a* melted,” my grasp of the concept ought to count as diminished. In extreme cases, e.g., if I treated any disappearance of a solid object as a reason to claim that it melted, I might be said not to grasp the concept of melting at all.<sup>50</sup> To have the concept •melt•, I must be sensitive to specific reasons, i.e., those that license the application of this concept.

This case concerns the rules governing the application of a specific concept, i.e., •melt•. However, our norm of explanatory coherence is meta-conceptual, a norm about which concepts to adopt. The norm asks us to adopt concepts, i.e., sets of inferential norms, that maximize the set of assertible singular statements inferable from other assertible singular statements. Here, we are not concerned with sensitivity to specific reasons for applying a concept, as was the case with •melt•, but with a second-order sensitivity to the principle that we must have reasons to apply our concepts.

This second-order sensitivity can be as implicit as the first-order sensitivity to specific reasons. We could, thus, be sensitive to the second-order norm without explicitly *representing* statements as reasons for other

statements. At first sight, this seems to be in tension with the passage of CDCM (§108) analyzed here. In the passage, Sellars claims that only by acquiring the ability to reason about reasons can we come to formulate the relevant second-order norms. An ability to reason about reasons presupposes the ability to represent reasons as reasons. However, I understand Sellars to speak about the explicit formulation of the norm of explanatory coherence in the passage, not about an implicit sensitivity to it. As Sellars claims, with the ability to reason about reasons, we acquire the ability to *formulate* second-order norms and to realize these second-order norms in a way driven by explicit reasoning.<sup>51</sup> This does not exclude the possibility that we implicitly adopted these norms before.

That does not mean that our conceptual systems must live up perfectly to this norm of explanatory coherence to count as conceptual systems. But any instance of a violation of the norm, i.e., any instance where we cannot infer an assertible singular statement from other assertible singular statements, should at least be regarded as a *prima facie* reason for revising our conceptual system.<sup>52</sup> Normally, we will not lack reasons entirely for applying a particular concept since, otherwise, we would not have the respective concept in the first place. More typically, inference principles that we already adopt will generate predictions contradicted by some assertible observation statement. Besides facing a failure of the principle of non-contradiction, we then face an explanatory gap since our current conceptual resources do not provide an explanation for the observation statement. In such cases, there is normative pressure to discard the observation statement or revise our conceptual norms. Of course, it might be the case that, at a certain point, there are no acceptable options available on how to change our conceptual system to bring it in line with the norm of explanatory coherence (as was the case with the measured precession of the perihelion of Mercury that could not be entirely explained within Newton's physics).

Even if we often cannot close these explanatory gaps due to limitations in time or other resources, being a concept user in a full sense at least requires a sensitivity to the normative pressures generated by failures in explanatory coherence. And it is hard to see how we could, on an inferentialist position like Sellars's, come to be sensitive to the first-order inferential norms constituting our concepts without such a sensitivity to this second-order norm. If there were no normative pressure to look for reasons and explanations, why should we adopt inference principles in the first place?<sup>53</sup> On an approach that treats meaning and conceptual content as the inferential potential of a linguistic expression, any gap in this inferential potential, i.e., any case where the expression in question would have to be used in a conclusion of a material inference but premises are not available, must count as a defect.

So, arguably, our meta-norm is a principle operative in any conceptual system for Sellars (it operates “in the heart of language militant”). This is why a principle of this type is not susceptible to “empirical proof or disproof.”<sup>54</sup> It is a precondition for having a conceptual system and thus makes empirical inquiry possible in the first place. Sellars’s Peircean scheme would be a conceptual scheme perfectly realizing these most general principles guiding our conceptual activities, principles which are, however, only imperfectly realized in our conceptual scheme (see also KTE, §40).<sup>55</sup> Therefore, by being concept users, we always already grasp, at least implicitly, Sellars’s regulative ideal of an ultimate conceptual scheme and, thus, the concept of ideal truth. Of course, this does not mean that we already grasp *what* is ideally true, nor does grasping this regulative ideal guarantee that we will gradually approach it.

A passage from Sellars’s “Induction as Vindication” (IV), which we will return to in the next section, supports this understanding of Sellars’s regulative ideal:

[T]he end-in-view in *nomological* induction [...] is not the possession of empirical truth, but the realizing of a logically necessary condition of being in the very framework of explanation and prediction, i.e. being able to draw inferences concerning the unknown and give explanatory accounts of the known.

(IV, §62; Sellars’s emphasis)

Nomological induction is the process by which we accept new laws. In Sellars’s framework, accepting a law means accepting a new principle of inference. He suggests that the aim toward which we are oriented when we reason about whether to accept an inference principle is the ability to do something, i.e., to draw inferences about new cases and to explain old cases. This ability is necessary for “being in the very framework of explanation and prediction.” But being in a framework of explanation and prediction, i.e., being able to draw material inferences, is necessary for us to be concept users.<sup>56</sup> This suggests that if we did not have the aim of being able to draw inferences concerning the unknown and give explanatory accounts of the known, i.e., without aiming at explanatory coherence in the sense discussed here, we would not count as concept users for Sellars.

This way of understanding the Peircean regulative ideal parallels Geiger’s reading of Kant’s regulative use of the ideas of reason. Both see the ideal as something constitutive of the possibility of experience or conceptual practices rather than something added as a heuristic or goal after this possibility or these practices have already been established. Instead, the ideal is a perfect realization of, as Sellars puts it, “the general features



that would be common to the epistemic functioning of any language in any possible world” (KTE, §41).

We might, therefore, resist Michael Williams’ critical attitude toward the usefulness of Sellars’s concept of ideal truth:

But we need no such ideal. To suppose that we do is like arguing, in the political sphere, that we cannot measure progress without the regulative ideal of utopia, when in practice we measure progress by improvements over where we are or were, not by increasing proximity to some imaginary endpoint of our journey.

(Williams 2016, 255)

However, even in the political sphere, we need criteria to identify improvement over where we are or were. There may be such (underspecified and potentially conflicting) criteria in concepts like justice, equality, or freedom. These concepts could be understood as merely specifying how society would be constituted at “the utopian limit of political progress.” However, we might also see them as norms that are operative, although imperfectly realized, in how our societies work and which guide our judgments on what changes constitute political progress.

This reading of Sellars’s regulative ideal can address part of Rorty’s criticism. Rorty claims that we cannot “neutrally” compare different conceptual schemes and determine whether they approximate an ideal conceptual scheme to a higher or lesser degree. According to this perspective, we are always subject to the norms of our conceptual scheme in our practices of evaluation. However, at least concerning Sellars, Rorty seems to overlook the possibility that there might be norms necessarily shared in all conceptual schemes and that these norms might give the notion of an ideal conceptual scheme its content.

Of course, many questions arise concerning this understanding of Sellars’s regulative ideal. Most basically, Sellars, like anyone advocating a variety of a coherentist approach to justification, knowledge, or truth, will face the standard objections leveled at such positions. I already discussed some of these in Section 2.3. However, there are other more specific concerns. It is puzzling, for example, why we should need two concepts of truth if we adopt this approach. If just by being a concept user, we always already grasp the concept of ideal truth, what motivation could there be for retaining Sellars’s immanent notion of truth as semantic assertibility by us? I will try to suggest an answer to this problem in Section 6.2.

Let us consider a further problem. In Section 3.2, I dismissed the notion of ideally efficient action as unsuitable to make the concept of an ultimate conceptual scheme intelligible. Among other things, I rejected the idea that ideally efficient action could be understood as the absence of unsuccessful

action since such absence could result from our having only a limited set of intentions. This chapter, however, claims that the norm of explanatory coherence requires us to treat any explanatory gap we encounter as a *prima facie* reason to revise our conceptual scheme. The perfect realization of this norm would entail an absence of explanatory failures. However, an objector could insist that the same line of reasoning used against ideally efficient agency could be applied to explanatory coherence, i.e., the mere absence of explanatory failure would not give us reason to claim that our conceptual scheme is explanatorily coherent in the sense required for realizing Sellars's regulative ideal.

However, the holistic character of our system of concepts and its openness to the world seem to foreclose any easily construable situation in which we would have such a limited set of concepts. As suggested in Section 2.3, coherence is much more than simple consistency. Coherence demands unifying and tightly knit inference relations between the statements formulable in a conceptual system, and this is not easily achieved. For Sellars, these inference relations indeed carry over into the practical domain,<sup>57</sup> i.e., the explanatory inferences of the theoretical domain become means-ends inferences in the practical domain (SM, chap. VII §51). Therefore, similar demands for coherence are placed on the theoretical and practical domains. However, the inferences we accept in the theoretical domain are primary for Sellars, and the inferences in the practical domain are merely derived.

Failures to act successfully need not always indicate explanatory gaps. As we have seen, such failures might be due to constraints in the world. It might be physically impossible for us to realize a specific intention, i.e., read Goethe's *Faust*, or impossible for us to co-realize a set of intentions, but we could still have an explanation for why this is so. Based on explanatory relations, we might also be able to formulate statements about what actions would be possible if the circumstances were different. Explanatory coherence is thus a more fundamental and encompassing requirement than ideally efficient agency. It comprises a rational reflection of our agency.

This applies also when we understand ideally efficient agency as the ability to realize Sellars's overarching moral community intention to maximize our common welfare. Without a Kantian God guaranteeing our welfare, our world might be such that it is impossible to maximize our common welfare, especially if we understand this, with Sellars, as a state where "each and every one of us leads a satisfying life" (ORAV, §195). In such a case, there would be no coherent set of successfully realizable categorically reasonable actions for Sellars. But at the ideal end of scientific inquiry, science would be able to explain why this is the case. We could thus achieve explanatory coherence without ideally efficient action, understood in this way.

The case of explanatory coherence and the case of ideally efficient action are also different in another respect. In the case of explanatory coherence, we can formulate the respective constitutive norm without presupposing the notion of an ideal end of scientific inquiry:

Our conceptual, inferential norms ought to be such that every assertible singular statement of the form “ $x \phi$ s at time  $t$ ” can be inferred from other assertible singular statements.

However, as we have seen in Section 3.2, in the case of ideally efficient action, the norm establishing such a regulative ideal could not be formulated intelligibly without the need to appeal to the idea of an ideal end of inquiry. If, for example, we try to formulate the principle as

Our conceptual, inferential norms ought to be such that every intention, which it is physically possible to realize, can be successfully realized,

we are covertly appealing to the notion of an ultimate scheme since the intentions that it is ultimately physically possible for us to realize are those about which science will tell us at the ideal end of inquiry that they can be physically realized.

I have proposed that Sellars’s regulative ideal is a set of rules and principles that guide our practical reasoning about accepting or rejecting more specific conceptual rules. If we are insensitive to these meta-conceptual rules, we will not count as concept users. This understanding of Sellars’s Peircean ideal does not rely on the idea that our successive conceptual schemes converge. It also does not presuppose that we can reconstruct an exclusive path of rational conceptual change. Sellars’s Peircean regulative ideal need not be understood as something removed from our own conceptual scheme, which then needs to be related to our scheme by some apparatus, e.g., conceptual counterpart relations. Now, I will turn to how practical reasoning is involved in applying Sellars’s rules constitutive of conceptual schemes.

### 4.3 Induction and practical reasoning

In the preceding chapter, I discussed Sellars’s Peircean regulative ideal. Rational conceptual change is the process of realizing this regulative ideal, i.e., realizing a perfect embodiment of the rules and principles that constitute any conceptual scheme. Now, I want to look at the reasoning process that leads to conceptual change for Sellars, i.e., what he calls “inductive reasoning” or “probability reasoning.” For Sellars, inductive reasoning, the process that leads to the adoption of new laws and theories and, thus,

to conceptual change, is, first and foremost, practical reasoning. Therefore, what is also at issue here is the role of practical reasoning and of the ability to act in Sellars's account of ideal truth.

I want to focus mainly on Sellars's 1960s essays on induction and argue for three interrelated claims. First, the end that we pursue in induction, and thus in conceptual change, is not truth for Sellars. Instead, it is acquiring or preserving an *ability* to do something—to explain and infer. This end coincides with realizing the meta-conceptual norm defining Sellars's Peircean conceptual scheme. Second, the reason why the relevant end cannot be truth, according to Sellars, is that if it were, we could never have a good reason "here and now" to accept new laws and theories. That is, we would never have a good reason to change our concepts. By implication, the practical end suggested instead by Sellars is meant to give us such a reason, i.e., to be effective in our practices related to conceptual change. These two claims support the reading of Sellars's regulative ideal put forward in the preceding chapter. Third, I will argue that Sellars's earlier account of the ends of induction is preferable to his later account, according to which truth is the end we pursue in rational conceptual change, after all.

### *Induction and the aims of conceptual change*

Sellars discusses his vindicatory understanding of induction and the rationale of adopting new laws and theories in three essays from the 1960s, "Induction as Vindication," "On Accepting First Principles" (written in the middle of the 1960s, but published in 1988), and "Are there Non-Deductive Logics?".<sup>58</sup> Sellars's views on these topics seem to remain stable even after this decade (however, see the discussion of NDL below). For example, he endorses them in the late essay MGEC, where he applies a similar vindicatory strategy to perceptual knowledge (MGEC, §67–68).

IV is the most thoroughly developed of the three essays, and I will focus on it. The notion of induction discussed in the essay is broad and also covers the acceptance of theories about unobservable objects and processes. Sellars's main argument in IV and also NDL is that there is no direct inferential connection between statements about observational evidence on the one hand and laws, both "observational" and theoretical, on the other hand. Inductive reasoning does not have the simple form "*e* (evidence), therefore *p*," or "*e*, therefore, *p* is probable," where *p* is the law or conjunction of theoretical statements under consideration. That does not mean that evidence is irrelevant to the acceptance of laws or theories. However, the relation between the evidence and the accepted law or theory is mediated through a complex of arguments. These arguments relate to each other as arguments and meta-arguments, all of which are deductive.<sup>59</sup>

The most relevant of these arguments for us here is a practical argument that leads to the conclusion-intention to accept, or reject, a certain law (“I shall accept  $p$ ”). Sellars writes in a letter to Gilbert Harman:

Law-like statements themselves would, as meta-linguistic rules, be “determined” by the evidence, in the sense that the adoption of the rule is vindicated by practical reasoning in which the description of the evidence occurs as a premise.

(CSGH, 20 November 1970)

The essays on induction are important for our discussion because they provide details on how Sellars conceived of the practical reasoning leading to rational conceptual change and, thus, the realization of his Peircean ideal.

In IV, Sellars discusses arguments for the acceptance of different types of conceptual entities: theories, laws, and singular statements based on statistical reasoning. The first and second are relevant here because accepting a new law or theory counts as conceptual change for Sellars.<sup>60</sup> From an inferentialist perspective, conceptual change is a process of adopting new inferential rules and discarding others. Since Sellars understands modal statements as covert rules of inferences, adopting new laws and theories means adopting new inferential rules.

Sellars understands reasoning towards accepting a statement of any of the three types mentioned above as probability reasoning. He claims that probability in its basic sense is non-metrical (metrical uses of “probable” can then be derived from the non-metrical use). In this non-metrical sense, statements are either probable or not but could not have a probability of, e.g., 0.75. According to Sellars, the statement “It is probable that  $p$ ” means, in this basic, non-metrical sense “It is reasonable to accept that  $p$ ” (IV, §12), where “reasonable to accept” means “worthy of acceptance” or “that relevant things considered there is a good reason to accept” that  $p$  (IV, §4).

It is important for Sellars that “It is probable that  $p$ ” (or “ $p$  is probable” or “probably,  $p$ ”) is not the conclusion of a first-order argument but of a second-order argument, a meta-argument.<sup>61</sup> The conclusion of this meta-argument (if successful) is that there is another good, first-order argument: a practical argument that concludes in the intention to accept  $p$ .<sup>62</sup> Thus, the conclusion of the second-order argument “It is probable that  $p$ ” means “There is a good argument which takes relevant things into account and has as its conclusion *I shall accept that- $p$* ” (IV, §15). This second-order argument can have a statement of the evidence and its relation to a hypothesis  $p$  considered for acceptance among its premises.

In what follows, I will focus on the practical, first-order argument. The conclusion of this argument is “I shall accept  $p$ ,” i.e., an intention to accept  $p$ . If I follow through on this intention, I will accept  $p$ , which means

thinking or asserting  $p$ . Thinking or asserting  $p$  is what Sellars calls “the terminal outcome” of probability reasoning. In the complex of arguments that characterizes probability reasoning for Sellars, we therefore find both a statement of the evidence (in the second-order argument) and an assertion of the hypothesis  $p$  (as the terminal outcome of the first-order argument). However, there is no direct inference from the evidence to the hypothesis.

The first-order practical argument looks like this (adapted from IV, §31):

I shall bring about end  $E$   
 (but bringing about  $E$  implies accepting a proposition, if it satisfies condition  $C$ )  
 so, I shall accept a proposition, if it satisfies condition  $C$   
 $p$  satisfies condition  $C$   
 so, I shall accept  $p$ .

The reasoning process that leads to the acceptance of a new law or theory is thus a process of *practical* reasoning. It is not a process of theoretical reasoning with  $p$  as its conclusion. Rather, the reasoning process leads to assertions of  $p$  through the intention to accept  $p$ .

For Sellars, the premises and conclusions of practical arguments consist of intentions. Of course, factual statements are also relevant to our practical reasoning, and Sellars has ways of incorporating factual information into practical reasoning.<sup>63</sup> However, every piece of practical reasoning leads from a premise-intention, in our case the specification of an end, to a conclusion-intention. Thus, in the reasoning process leading to the acceptance of laws and theories, we justify the acceptance of theories and laws by appealing to an end, i.e., a premise-intention (“I shall bring about end  $E$ ”).

This is why Sellars thinks induction is “vindicatory.” Inductive reasoning aims to show that accepting a law or theory, i.e., adopting a new rule of inference, contributes to achieving certain ends. The title of Sellars’s essay “Induction as Vindication” reminisces Hans Reichenbach’s and Herbert Feigl’s attempts at vindicating induction. Feigl, Reichenbach, and Sellars share the idea that vindication is a defense of a rule rather than of a factual statement. However, as the title of Sellars’s essay suggests, in contrast to Feigl and Reichenbach, Sellars’s aim is not primarily a vindication of induction although at some points he suggests what such a vindication might look like (see below). Rather, he sees inductive reasoning itself as vindicatory—as a vindication of laws and theories, i.e., of specific inferential rules.

What end  $E$  and conditions  $C$  are relevant in the argument schema above differs depending on what type of statement is to be vindicated.

Most crucial for our discussion here is how Sellars specifies the ends we pursue in accepting theories and laws,<sup>64</sup> since these two cases count as conceptual change.

Importantly, the end for accepting laws and theories is not approximating an ultimate conceptual scheme or achieving truth for Sellars. He characterizes the end of accepting laws as follows:

*E is the state of being able to draw inferences concerning the composition with respect to a given property Y of unexamined finite samples ( $\Delta K$ ) of a kind, X, in a way which also provides an explanatory account of the composition with respect to Y of the total examined sample, K, of X.*

(IV, §52; my emphasis)<sup>65</sup>

The end above analytically implies what Sellars calls a policy (“I shall accept a proposition if it satisfies conditions C”). The policy tells us under what conditions I ought to accept a candidate law or theory. In the case of laws, the policy says

I shall accept “that *K* is an unexamined finite class of *X*s implies that approximately  $n/m$  *K*s are *Y*,” if  $n/m$  of the examined *X*s are *Y*.

(IV, §51)

In the limiting case, the ratio of composition of an already examined sample is 1/1, i.e., all examined items of kind *X* have a certain property *Y*, and the unexamined sample consists of a single individual of that kind. Suppose we consider accepting the law “Dry matches light (at  $t_2$ ) if struck (at  $t_1$ )” after having examined a finite number of dry matches, all of which lighted after being struck. Accepting this law would allow us to draw inferences about new cases (“This dry match has been struck at  $t_1$ , therefore, it will light at  $t_2$ ”). It also allows us to give explanations of all cases we have examined (“Why did this object light? Because it was a dry match which was struck”). Thus, the proposed law achieves Sellars’s end in this case and the policy derived from this end leads us to accept it.

Of course, this is a simplified case, and this piece of practical reasoning does not exhaust the steps needed in scientific inquiry to establish new laws. Sellars operates in a context of justification rather than discovery. That is, he does not discuss the more complex, non-deductive steps needed to establish new laws, e.g., how to systematically vary circumstances so that we can effectively find out which circumstances are relevant for explaining why matches sometimes light and sometimes do not.

At first sight, the end for accepting laws proposed by Sellars might not seem ambitious enough. We could argue that we do not merely want

to be in a state of being able to draw inferences about new cases and explain old ones. We want to draw the *right* inferences and find the *correct* explanations. Introducing some inference principle that accords with the known cases might fall short of this (this is a consequence of, e.g., Goodman's new riddle of induction, Goodman 1979).

However, as Sellars claims, his inductive policy will at least never recommend the acceptance of a law that we know to be false.<sup>66</sup> This is guaranteed by his requirement that accepted laws explain known cases. This does not mean that the procedure is infallible. After examining further cases, we may come to see that a law we accepted needs to be rejected or adjusted by including more explaining factors (e.g., the presence or absence of oxygen when striking a match). However, we must accept laws, i.e., inference principles, in any event. Therefore, the inductive reasoning Sellars recommends is, or so he claims, the best guide to accepting reasonable inference principles. The dynamic character of Sellars's understanding of scientific reasoning is essential here: the procedure he suggests is good not primarily because it guarantees the right outcome at any specific point but because it is self-correcting (EPM, §38). The same procedure of inductive reasoning and the same ends, which have us accept a law, can later lead to correction, i.e., the rejection of this law and acceptance of a better one.

In characterizing the relevant aim for accepting *theories*, Sellars is much less straightforward. He claims that the aim is to be "able to give non-trivial explanatory accounts of established laws" (IV, §38). The policy implied by this aim is the following (adapted from IV, §35):

I shall accept *T* if *T* is the simplest available framework which generates new testable law-like statements, generates acceptable approximations of nomologically probable law-like statements and generates no falsified law-like statements.<sup>67</sup>

Curiously, this formulation of the end for theory acceptance is close to the "layer-cake" picture of theoretical explanation, which Sellars had already criticized in LT a few years before. According to the layer-cake view, laws formulated in terms of observational predicates (e.g., "Water boils at 100°C") explain observable events, and theories explain these observational laws. In LT, Sellars claims that we should adopt a different picture of theoretical explanation. According to this alternative understanding, theories directly explain singular observable events (in reconceptualized form). Theories thus provide only an indirect appraisal of why observationally established laws were as successful at explanation as they were.

If we accept Sellars's criticism of the layer-cake view of theoretical explanation, his formulation of the end for theory acceptance in IV should be amended accordingly. The acceptance of theories is thus guided by the



same aim as the acceptance of (observational) laws, i.e., to be able to explain and predict singular, observable events, this time in reconceptualized form. In what follows, I will assume that the acceptance of theories, like the acceptance of (observational) laws, aims at our being able to explain known observable events of a certain type and draw inferences about new observable events of that type.

Even so, there are obvious worries about Sellars's claims. For example, it is important for him that the policies for the acceptance of laws and theories follow *analytically* from the overarching ends. If the relation between policy and end were a means-ends relation open to empirical investigation, Sellars's account would become circular. We would then have to show by Sellars's inductive procedures that adopting the policy is a reliable means to achieving the end. However, it is not clear that the ends guiding the acceptance of laws and theories analytically imply Sellars's respective policies, as he claims they do (IV, n. 8). This claim might be plausible in the case of laws, and Sellars takes some time to defend it (IV, §53–55).<sup>68</sup> It is less convincing in the case of the policy for theory acceptance, at least as initially formulated by Sellars in the essay. Among other things, the policy is an intention to accept the simplest theoretical framework of a particular type. However, since the policy ought to be analytically implied by the end of explaining observable events, the simplicity of a theory would have to be necessary for giving such explanations. But it is unclear why this should be so. Simplicity seems irrelevant when it comes to the ability of a theory to provide explanations. A Sellarsian account of induction would need to clarify these issues. Below, I will raise a related worry about the first ends that Sellars appeals to.

Let us turn to what is important in Sellars's account of induction regarding his Peircean regulative ideal and ideal truth. As is evident from Sellars's specification of the end for accepting new laws (and theories), his account of accepting laws and theories is *doubly* practical. First, the reasoning leading to the acceptance of a law or theory is practical reasoning. Furthermore, the premise-intention in this reasoning, i.e., the end for accepting a law or theory, is not a theoretical end such as acquiring true beliefs. It is itself a practical end—acquiring the ability to do something, i.e., to explain and infer.<sup>69</sup>

Possessing truth is thus not a direct end of inquiry and conceptual change for Sellars. The “good reason” for accepting a theory which licenses us to claim that the theory is true (IV, n. 9) and which provides a good reason to say that the objects postulated by the theory exist (PHM, §75) is always that accepting the theory allows us to acquire or maintain the ability to explain and infer. Thus, the end that we pursue, according to him, accords with the meta-conceptual norm, which we identified as one of the expressions of Sellars's Peircean regulative ideal in the preceding

section. There, I argued that a meta-conceptual norm of explanatory coherence is constitutive of conceptual schemes for Sellars and, at the same time, an expression of this regulative ideal. In Sellars's account of induction, this norm reappears in the form of an intention to be able to explain statements about objects and sets of objects and draw inferences regarding them.

In the context of our discussion, it is also important why Sellars prefers this end to possessing truth. Sellars criticizes Reichenbach's approach to induction for positing ends of which we cannot know that we have achieved them. According to Sellars, such ends cannot give us a reason here and now to accept laws or theories.

Reichenbach's account of induction is based on frequency approaches to probability. He attempts to "vindicate" our practice of positing limits towards which a series of cases converges by arguing that this is the only procedure that can guarantee success if nature is regular, so if success is to be had at all (Reichenbach 1938, §39; see also Feigl 1961). Sellars objects to Reichenbach that such a procedure can provide us at any point of inquiry only with a reason to think that "in the long run," we will have *reason* to adopt statements positing a specific limit frequency. A series might converge only after a vast number of trials, and there may be an infinite number of ways to specify a rule positing a limit frequency based on observed cases (see also Salmon 1991). Thus, Sellars argues that Reichenbach's approach does not provide us with reasons "here and now," or while inquiry is underway, to adopt statements about unexamined cases.

It is of minor importance whether Sellars's diagnosis is an apt criticism of Reichenbach. Rather, it is interesting what he says about Reichenbach's account as he understands it. As part of his discussion, Sellars asks:

[M]ust the end-in-view with respect to which induction is to be vindicated be the sort of thing that can be known to be realized or, at least, that we can have reason to believe to be realized? On the account I am about to give, the answer is "yes." [...] A reason which can be had only "in the long run" is a reason which can never be had.

(IV, §44–45)

Thus, Sellars suggests that the "ends-in-view" guiding the acceptance of laws and theories must be ends of which we can know whether they have been realized. Sellars makes a similar point in OAFP:

I submit that any end with reference to which the doing of a certain action is to be justified must be the sort of thing that can be known to be realized.

(OAFP, §33)

In his discussion of Reichenbach, Sellars suggests that Reichenbach formulates the aim of induction wrongly as approximating truth or true limit frequencies. On this reading, both Reichenbach and Sellars think that we can vindicate induction. However, unlike Sellars, Reichenbach does not see induction itself as a vindicatory process but as a process aimed at truth. Induction is to be vindicated for Reichenbach as the only procedure of inquiry that guarantees that we approximate the truth about nature's regularities, provided that nature is regular in the first place. In contrast, Sellars wants to vindicate induction without such an appeal to truth.

Sellars's reason for this is that possessing truth is not an "end-in-view" that can be known to be realized:

[An inference principle adopted by inductive reasoning] may turn out to be false, but this fact in no way impugns the rationality of the inductive enterprise. For the end-in-view in *nomological* induction [...] is not the possession of empirical truth, but *the realizing of a logically necessary condition of being in the very framework of explanation and prediction*, i.e. being able to draw inferences concerning the unknown and give explanatory accounts of the known. This end-in-view, unlike Reichenbach's end-in-view with respect to which he attempts to vindicate nomological induction, is something which can be known to obtain.

(IV, §62; first emphasis Sellars's, second mine)<sup>70</sup>

This passage is fertile in several respects. First, it claims that approximating truth is not the end we pursue in accepting laws or theories. This is because we could not know that this end was achieved.<sup>71</sup> This contrasts with the aim of being able to explain facts about known samples of a kind and draw inferences about new cases of that kind. On Sellars's view, at each stage of inquiry, we can know whether this aim is realized. It can, therefore, provide a reason for the acceptance of laws and theories in ongoing inquiry. This accords with the claim that Sellars's regulative ideal is meant to operate directly in our conceptual practices here and now (and anytime, anyplace). The aim that Sellars formulates for the acceptance of laws (and theories) in the passage above, i.e., "We shall be able to draw inferences concerning the unknown and give explanatory accounts of the known," is an actor-centered formulation of the meta-conceptual norm discussed in the preceding section.

In the passage above, Sellars also suggests a justification for accepting this end. He claims that it is a necessary condition for "being in the very framework of explanation and prediction." Given Sellars's inferentialism, somebody who is not "in the framework of explanation and prediction" is not a concept user. So, we ought to accept the end of acquiring

or preserving our ability to explain and infer because accepting this end constitutes us as concept users. This harmonizes with the interpretation of Sellars's Peircean regulative ideal from the preceding section. It also amounts to a vindication of induction for Sellars, even though the vindication differs from Reichenbach's approach. According to Reichenbach, the rule of induction can be vindicated because it is the only method of inquiry that guarantees that we approximate the truth about nature's regularities if there are such regularities. For Sellars, in contrast, any concept user is committed to using induction in his broad sense since, otherwise, she would not count as a concept user in the first place.<sup>72</sup>

### *Truth as a goal of induction?*

In the rest of this chapter, I want to consider a problem arising from Sellars's later approach to inductive reasoning. I will argue that we should prefer his earlier account from IV to avoid this difficulty. Sellars's vindication of laws and theories in IV is based on the idea that we must adopt laws and theories to pursue the practical ends, i.e., norms, that we must pursue if we are to count as concept users. In IV, these ends are being able to infer or explain and do not include "possessing truth." However, in NDL, a further essay on probability reasoning published a few years later in 1970, Sellars suggests that the end we pursue in induction is possessing "a maximum of truth" (NDL, §54). In this essay, Sellars understands this as an end not only for accepting singular predictions based on statistical reasoning (as in IV) but also for accepting laws and theories.

In IV, Sellars comments only in passing on what justifies the ends guiding the acceptance of laws and theories. In NDL, in contrast, he explicitly raises the question of what warrants these ends. Sellars asks whether the end in question is an end that we merely happen to have (NDL, §57). His subsequent discussion shows that he thinks of the end in question as an end that we have necessarily. This last claim is in line with Sellars's account in IV. However, in contrast to IV, the end Sellars discusses in NDL is the end of attaining a maximum of truth.

To justify this end in NDL, Sellars draws on his discussion of morality from *Science and Metaphysics*, published a few years before. He suggests that the end of possessing a maximum of truth is a moral end because it is implied by the overarching moral intention "We shall foster our common welfare," i.e., the communal intention which defines Sellars's "moral point of view" (SM, chap. VII). On Sellars's analysis, a moral intention or end is one which is implied by this communal intention. If the end of possessing a maximum of truth were implied by this intention, it would be a necessary end for us as moral agents. It would not be an end that "we merely happen to have," i.e., an end that merely follows from our personal preferences.

Given Sellars's account of morality, genuine moral agents could then be shown to be irrational if they did not adopt the end of maximizing truth.<sup>73</sup> This end would be "categorically reasonable—in the truest sense a moral obligation" (NDL, §59).

To complete his argument in NDL, Sellars must show that the intention to foster our common welfare implies the intention to possess a maximum of truth. This means showing that possessing a maximum of truth is necessary for realizing our common welfare. Indeed, Sellars claims that "truth is a necessary condition of securing the common good" (NDL, §59). However, he does not justify this claim, i.e., there is a gap in his argument.

Perhaps Sellars considers it *conceptually* necessary, i.e., an analytical truth, that fostering our common welfare implies possessing a maximum of truth. But to say this, we would need an analysis of the concept of common welfare, and neither in NDL nor elsewhere does Sellars provide such an analysis. Maybe what he thinks is that our epistemic welfare, including the attainment of truth, is part of our general welfare simply because we are rational beings and care about our epistemic state. Attaining truths would then be seen as itself yielding collective satisfaction or happiness and thus contributing to our common welfare.

However, it seems more natural to read NDL as claiming that establishing truths is not a form of welfare itself but that it is a necessary *means* for securing our common welfare. The intention to foster our common welfare would then empirically imply the intention of attaining a maximum of truth. The idea is that there is an empirical, lawful relation between "The general welfare is maximized" and "We possess a maximum of truth." However, the acceptance of such a law would have to be the outcome of the very inductive procedure which we wanted to justify with its help. Thus, circularity would threaten.

Maybe this circularity is not vicious. However, the fact that there is a threat of circularity at this point at least suggests that the defense of induction provided by NDL is incomplete.<sup>74</sup> Also, when Sellars discusses the relation between his ends of induction and the respective policies for the acceptance of laws and theories, he himself claims that the inferential connection must be analytic (IV, n. 8). His reason is precisely that if it were not analytic, his account would be circular, a concern that should apply to the case of justifying the end of maximizing truth from NDL as well. These unclaritys give us reason to prefer Sellars's earlier formulation and vindication of the end of induction in IV where this end is seen as binding on any concept user since being a concept user presupposes sensitivity towards this end.

To summarize, for Sellars, both cases of conceptual change we discussed, i.e., the acceptance of laws and of theories, are based on aims (a) the realization of which can be ascertained here and now, (b) which, *pace* NDL,

do not directly concern the possession or approximation of truth but acquiring or preserving the practical abilities to infer and explain,<sup>75</sup> and (c) are vindicated by their capacity to improve the realization of principles constitutive of any conceptual scheme. Conceptual change and the realization of Sellars's regulative ideal are thus bound in several ways to the practical. They are outcomes of practical reasoning here and now. Furthermore, the aims relevant to this practical reasoning concern circumscribed practical abilities (to explain and draw inferences). This role for the practical is not only more bounded but also more intelligible than the limit concept of ideally efficient agency discussed in Section 3.2.

## Notes

- 1 Alternatively, it must provide an account of how we could make claims about conceptual continuity in a context-invariant way in Sellars's framework.
- 2 A conceptual scheme is comparable to a game in the sense that it is constituted by rules that allow concept users certain moves and forbid others.
- 3 See Rosenberg (1975, §14).
- 4 This is not to say that these questions are unimportant. Some of them have received much attention, see, e.g., Sellars's discussion with Bas van Fraassen on whether the acceptance of theories implies an ontological commitment to the entities postulated by the theory (SRT; van Fraassen 1975, 1976, 1980; see also Gutting 1982).
- 5 This line of reasoning is heavily exploited by Fodor and Lepore (1992).
- 6 This also remains unresolved in Rosenberg's and Seiberth's account of ideal truth. Rosenberg claims that we can compare new and old theories by reconstructing the old theory in terms of the new theory (Rosenberg 1988; see Section 3.1). But to do this, we need to establish which of our new concepts reconceptualizes what was to be captured by some old concept. Rosenberg does not provide criteria for when two concepts stand in this relation.
- 7 There are also brief reflections about the problem at (SRLG, §88).
- 8 See also Sellars's reference to Friedrich Waismann's "open texture" in a footnote at (CDCM, 260).
- 9 Sellars suggests a connection between these early ideas about conceptual change in CDCM and his later thoughts on the question in (RDP, n. 4).
- 10 Sellars connects correspondence rules and conceptual successorship in (WSNDL, 339).
- 11 Sellars calls this a "substantial correspondence rule." He also considers "methodological correspondence rules," which link observations to the theoretical states they detect, such as „Spectroscope appropriately related to gas shows such and such lines ↔ Atoms in region R are in such and such a state of excitation“ (TE, §18).
- 12 In the same essay, Sellars claims that correspondence rules "envisage the abandonment of a sense and its denotation" (LT, §54). In light of his later considerations about reconceptualization discussed below, this claim, especially the idea of abandoning a denotation, might need qualification.

- 13 Rosenberg acknowledges the possibilities of forks in rational conceptual development, but argues that this can only be a temporary phenomenon that necessarily tends to disappear in favor of a linear conceptual succession.
- 14 Brandom (2015, chap. 1) uses this worry to construe an argument against Sellars's scientific naturalism. However, Brandom does not discuss Sellars's ideas about reconceptualization.
- 15 See also (NAO, chap. 5 §18).
- 16 I do not want to claim that this understanding applies to every claim that Sellars formulates using the expression "really." Sometimes, he claims, e.g., that we can both say that there are qualities and that there *really* are no qualities (TTC, §13). In this case, we do not reconceptualize qualities with the resources of a different conceptual scheme. Rather, this case concerns how we understand, though maybe implicitly, talk about qualities *within* our conceptual scheme (i.e., as covertly metalinguistic talk which classifies the function of a specific adjective).
- 17 See Section 4.2 for how to understand adequacy. I will drop the clause about adequacy in the rest of this section since it is not the focus of the discussion.
- 18 During a roundtable discussion at Ohio State University (WSNDL, 352), Sellars says that it is easy to give examples of pairs of conceptual predecessors and successors but hard to develop a general theory. This suggests that conceptual succession may be best seen as a concept organized around a prototype (Rosch 1999), i.e., around prototypical cases like the move from Newtonian mass to Einsteinian mass, with less prototypical cases at the periphery, such as the move from ether to fields. This would chime with the idea that what counts as a conceptual successor is context-dependent.
- 19 For a Sellarsian account of translation, see Seibt (1990, chap. 2.4).
- 20 It is not a necessary condition. My understanding of a second language can be exhibited simply in my ability to use this language successfully without producing explicit meaning statements.
- 21 (Cf. RQ, §30 and n. 10; CC, §43; NAO chap. 4 §44; TTP, §55). See also (WSNDL, 55), where Sellars says that functional "classification is pragmatic" and that the standards for classifying two items together may be more or less strict depending on context. An interesting passage, in this respect, is (TTP, §53):

If to say what an expression means is to classify it, the relevant philosophical point is that classification requires criteria, and that the criteria for classification under a sortal are typically flexible. In one classificatory context a spade may be a spade, in another a shovel.

- This is reminiscent of William Labov's classical empirical study concerning, among other things, the context sensitivity of the classification of artifacts like cups and bowls (Labov 1973).
- 22 Matsui (2024) also emphasizes the context sensitivity of claims about conceptual continuity in Sellars.
  - 23 "The point of classifying games in one way rather than another" is again a contextual aspect. In a context of learning to play chess, a game without a rule

- for capturing *en passant* is certainly still chess, but in the context of the Chess World Championship, it is certainly not.
- 24 In current terminology, an argument about whether a pawn that does not capture *en passant* is still a pawn would be called a “metalinguistic negotiation” (see, e.g., Plunkett 2015).
  - 25 A change in adicity seems to occur in one of Sellars’s prototypical cases of continuous conceptual change, i.e., the shift from a Newtonian to a relativistic concept of simultaneity.
  - 26 “Observation” is probably meant to be read as “prediction” here.
  - 27 The appeal to explanatory roles has affinities with (Brigandt, 2010). According to Brigandt, conceptual change is continuous (or “rational,” in his terms) if there is continuity in at least one of the following dimensions: the reference of successive concepts, their inferential role, or, in particular, their epistemic goal. The epistemic goal—“the kinds of inferences and explanations that the concept is intended to support” (Brigandt 2010, 24)—is close to Seibt’s explanatory role. But as Brigandt emphasizes, the epistemic goals that a concept serves can be flexible and context-dependent.
  - 28 It is also unclear how these accounts can deal with cases of multiple conceptual successors. The folk concept of memory has been succeeded by a set of more specific concepts in cognitive science and psychology: working memory, long-term memory, declarative memory, etc. None of these is *the* successor to the concept of memory, but each can be seen as continuous with the folk concept of memory. For a similar, hypothetical case, see Rorty’s discussion of the concept of demons (Rorty 1965, especially 31).
  - 29 Of course, authors like Seiberth might appeal to picturing and claim that “dephlogisticated air” and “oxygen” picture the same thing and that this guarantees continuity between them. That is, they occur *in similar ways* in the map-like arrangements of basic empirical sentences (understood as natural-linguistic objects) generated by the two languages in question. However, it seems hard to make this claim precise and context-invariant since appeal to similarity brings the considerations about context sensitivity discussed here back into play.
  - 30 See also (TE, §30) or (ML, 117).
  - 31 This has been emphasized by, e.g., Seiberth (2022), O’Shea (2007, chap. 6), or Christias (2017a).
  - 32 Kant also sometimes applies the term “regulative” to the principles of the understanding, particularly when he speaks about the dynamic categories (manner and relation, see e.g., Kant 1998, A236/B296). However, I will focus here only on the regulative use of the ideas of reason (for a discussion of the relation between the regulative principles of the understanding and the regulative use of the ideas of reason, see Banham 2013).
  - 33 See, e.g., Kant (1998, A653-54/B681-82) for one interesting passage.
  - 34 For instances of this heuristic reading, see, e.g., Dister (1972) or Guyer and Wood (1998). For a position sympathetic to Geiger’s reading, see Banham (2013) and, in his specific way, O’Shea (1997).



- 35 Since talking about “conceptual schemes” is using an abstraction, to say that certain norms constitute conceptual schemes is not to say that they create an abstract entity or a system of abstract entities in a robust sense. It is merely short-hand for saying that people need to exhibit a certain set of normative attitudes towards certain phenomena, e.g., explanatory gaps, to count as concept users.
- 36 I disagree with the more substantial conclusions that deVries wants to draw from these ideas, namely, that we can ascribe these practically constituted entities a status of being “practically real” in Sellars’s framework (see Dach 2023).
- 37 For Sellars, statements about changing objects (i.e., about objects doing something or undergoing a process) are more basic than event-statements like “Event *e* took place,” which he understands as metalinguistic statements (see, e.g., AAE). Because of this, Sellars claims, we are not ontologically committed to events but to particular objects, at least within our commonsense conception of the world. In an ultimate scientific conceptual framework, events or processes would be the basic entities and objects would be merely derived (FMPP). The rule above would then have to be reformulated to suit this new ontology and the new form of basic empirical statements (now “It  $\psi$ s in location *l* at time *t*”).
- 38 The correct assertibility of a singular statement can be grounded in observation, so in what Sellars calls “language-entry moves.”
- 39 Sellars briefly discusses the problems of this principle in relation to the mathematical resources needed for microphysics in (SM, chap. V §93–94).
- 40 For discussion, see, e.g., Williams (2016, 244–45). We can avoid some of the controversy of Sellars’s claim by pointing out that Sellars sees his ultimate conceptual scheme as a regulative ideal, i.e., as something that guides our behavior but which might never be realized. According to Misak, Peirce handles bivalence in a similar way, as “a regulative hope” (Misak 2004, 140).
- 41 The qualification “in a full sense” is needed because the category “concept user” does not have sharp boundaries. We need to make room for intermediate stages, e.g., to account for maturation in children and for non-human organisms, and maybe artificial agents, as concept users in a less-than-full sense.
- 42 “Church militant” refers to a state or a part of the congregation bound up in earthly struggle against weakness and evil. “Church triumphant” refers to a state or a part of the congregation where these struggles have been overcome. The church militant faces the limitations of a real-life, embodied situation against which it struggles and through this struggle draws closer to church triumphant.
- 43 For evidence of abduction to causes of events in toddlers, see Saxe, Tenenbaum, and Carey (2005), Saxe, Tzelnic, and Carey (2007), Muentener and Schulz (2014), for evidence of small children using the disjunctive syllogism, see Mody and Carey (2016). See Shupe and Camp (2017) for an overview of instrumental reasoning in non-human animals.
- 44 Also see Macbeth (2018).
- 45 For brevity, I will call “Every event has a cause” and similar statements “inference principles” directly rather than “material-mode expressions of inference principles.”

- 46 For Sellars's treatment of events see, e.g., TWO or AAE.
- 47 Compare O'Shea's (1997) reading of Kant. According to this reading, empirical judgments that a specific cause caused a specific effect are contingent for Kant, while the general causal law that for any event/effect there is some cause, which brought it about, is a necessary, second-order conceptual rule demanding that there be first-order rules constraining the appearances.
- 48 There seems to be an analogical rule in the moral domain for Sellars, i.e., the ought-to-be that "all ends [be] combined in a systematic whole" (SM, chap. VII §152). Also see the parallel he draws between his regulative ideal of scientific inquiry and a regulative ideal in the moral domain in (SM, chap. VII §135).
- 49 This sensitivity to a reason is not meant to require an ability to represent the reason as a reason.
- 50 This ought to be seen as a matter of degree. For a defense of the claim that a Sellars-inspired inferentialist approach can accommodate the idea that we grasp inferential roles to different degrees, see Drobnák (2021). For a recent discussion of inferentialism and the division of linguistic labor, see Kaluziński (2024).
- 51 For a suggestion that these regulative ideals need not be explicit, see WSN DL (335).
- 52 This echoes Dorothy Emmet's claim that the process of approximating a regulative ideal is not a process of practical means-ends reasoning. We do not start with our practices, then set realizing a regulative ideal as our goal, and then figure out the best means to do so. Rather, progress in a practice is established by "clarifications within the practice" as oriented toward the regulative ideal (Emmet 1994, 9).
- 53 This does not explain why we are sensitive to such second-order normative pressure, and this is not my aim. However, there are several accounts of what functions sensitivity to reasons and the readiness to engage in the "game of giving and asking for reasons" fulfill for us and why these functions might be beneficial to us (see, e.g., Koreň 2022; Mercier and Sperber 2018; Peregrin 2022; Shapiro 2023).
- 54 This is also one of the significant differences between Sellars's and Quine's (1951) holistic approaches to such "first principles." Sellars's claim that such statements are immune from revision by empirical investigation should not be taken to mean that we cannot justify them. They can be vindicated from a transcendental perspective as presuppositions of our having concepts (see also SE; MGEC).
- 55 In his interpretation of Sellars's early essays, Brandhoff calls such general principles "ideal normative standards to which any user of an empirically meaningful language is implicitly committed" (Brandhoff 2017, 61).
- 56 IV is an essay from the early 1960s, some years before Sellars explicitly introduced his Peircean ideal. However, similar thoughts are reiterated in NDL, published in 1970, even though, possibly in the wake of SM, this essay has a more pronounced emphasis on truth. Sellars also endorses IV in his correspondence with Gilbert Harman (CSGH, 26 February 1970) and in later essays like MGEC. Thus, even though Sellars introduces the notion of a Peircean

- scheme explicitly only in the second half of the 1960s, the general theme of a perfect realization of norms constitutive of any conceptual scheme seems to be a stable one running from Sellars's early essays (RNWWR) through CDCM and IV up to NDL and later texts.
- 57 Via his principle S-IMP: "It is the case that-P" implies "it is the case that-Q"  $\leftrightarrow$  "It shall be the case that-P" implies 'it shall be the case that-Q."
- 58 These essays are an intriguing but under-explored part of Sellars's corpus and would deserve closer study (for some of the rare discussions see Pitt 1981; Lehrer 1973, 1983). Some earlier remarks on induction, probability, and related themes can be found in Sellars's CDCM.
- 59 Sellars's answer to the title question of one of the essays, i.e., whether there are non-deductive logics, is negative.
- 60 See also (SRI, n. 36) and (RDP, 457): "I regard rules of inductive inference as rules for the reasoned change of a language."
- 61 Somewhat confusingly, Sellars calls this meta-argument a "first-order probability argument."
- 62 Sellars's conception is much more intricate than there is room to convey here. For example, he explains how there can be reasonable probability statements like "It is probable that  $p$  in relation to  $e$  and  $R(\text{that-}p, e)$ ." He also uses the device of dependent implication to account for the impression that probability statements speak about a relation between evidence and a hypothesis. It might be fruitful to compare Sellars's account of probability with more recent expressivist approaches (see, e.g., Price 1983).
- 63 Via his principles S-IMP and So-be-it (ORAV, §47 and §66) or via "dependent implication" (IIL0, sec. 4; CPCI).
- 64 Sellars also considers singular statements, e.g., predictions about the properties of an object randomly selected from a previously examined set. Here, the aim is to "increase the proportion of acceptable propositions about objects belonging to sets the composition of which is known" (IV, §73; the appeal to *acceptable* propositions here might lead to circularity). That is, the aim is to maximize truth in a controlled way (i.e., in such a way that we know what proportion of the accepted statements is true). However, such predictions do not introduce new inferential rules, i.e., they are not instances of conceptual change.
- 65 Also see (OAFP, §35).
- 66 But see Lehrer (1973, 86–87), who criticizes this claim and suggests modifications to Sellars's policy. At the same time, Lehrer leaves Sellars's overall strategy intact. For a reconsideration of this criticism, see (Lehrer 1983).
- 67 Some years later, in OAFP, Sellars characterizes the aim of theory acceptance differently. However, his discussion is rather impenetrable. He suggests two aims for theory acceptance, first "the direct ability to produce adequate conceptual pictures of relevant parts of our environment" (OAFP, §26) and second "having confirmed empirical law-like statements" (OAFP, §28).
- 68 But see the criticism in Salmon (1991, 108–13). Salmon argues that Sellars's policy for accepting laws is not reasonable given the end of being able to draw inferences about unobserved cases and to explain observed cases. I will assume that Sellars's policies could be adjusted to avoid these problems.

- 69 See also (LRB, §43) for the idea that we justify the adoption of a set of rules “pragmatically.”
- 70 The passage concerns “nomological” induction, i.e., the acceptance of laws. But since, as argued above, the relevant aim of accepting “observational” laws ought to coincide with the aim for accepting theories, we can extend what Sellars claims here to the case of theory acceptance.
- 71 So, at least regarding the acceptance of theories and laws, truth is not a direct aim of inquiry for Sellars (cf. Rorty 1995; however, in contrast to Rorty, Sellars sets up constraints on what counts as good reasons for accepting theories and laws in IV, NDL, and OAFP).
- 72 See also (SRLG, §83).
- 73 Of course, there are related questions about why it should be necessary for us to have Sellars’s overarching communal intention in the first place (i.e., why the moral point of view should be a necessary point of view for us). Sellars makes only vague and potentially conflicting claims in this regard (see SE, §59 ff.; SM, chap. VII sec. XX; ORAV, §208). For a different type of defense, see Koons (2021).
- 74 Furthermore, merely aiming at truth is insufficient (we could then simply accept tautologies). Our aim should also include considerations about maximal informativeness. Sellars’s aim of having workable material inference principles fits this demand better.
- 75 Accepting laws through induction is necessary for means-ends reasoning and thus for reliable successful action. However, not every case of successful inductive reasoning directly underwrites action for Sellars. He claims that “it can be reasonable to *accept* a hypothesis which is not reasonable to *act on*” (IV, §92; Sellars’s emphases). This concerns cases where expected utility would make it irrational to act on the hypothesis we accept.

# References

## Works by Wilfrid Sellars

I cite Sellars's texts using the abbreviations that have become a standard device within Sellars scholarship. In the few cases where no established abbreviation exists, I introduce one.

Where possible, I refer to places in Sellars's texts by using paragraph numbers. In some cases, these paragraph numbers do not appear in the original published version of the respective text but were added only later, often in the collections of Sellars's writings issued by Ridgeview. Nevertheless, this numbering system has become a standard tool for citing Sellars's texts. Information about the relevant collection of Sellars's texts can be found in this list. EPM is cited using the original paragraph numbers.

- AAE "Actions and Events." *Noûs* 7 (2): 179–202. DOI: 10.2307/2214491. 1973.
- AE "Abstract Entities." *Review of Metaphysics* 16 (4): 627–71. 1963.
- BBK "Being and Being Known." *Proceedings of the American Catholic Philosophical Association* 34: 28–49. DOI: 10.5840/acpapro19603413. 1960.
- BD "Berkeley and Descartes: Reflections on the 'New Way of Ideas'." In *Studies in Perception: Interpretations in the History of Philosophy and Science*, edited by Peter K. Machamer and Robert G. Turnbull, 259–311. Columbus: Ohio State University Press. 1977.
- CC "Conceptual Change." In *Conceptual Change*, edited by Patrick Maynard and Glenn Pearce, 77–93. Dordrecht: D. Reidel. 1973.
- CDCM "Counterfactuals, Dispositions, and the Causal Modalities." In *Minnesota Studies in the Philosophy of Science, Vol. II*, edited by Herbert Feigl, Michael Scriven and Grover Maxwell, 225–308. Minneapolis: University of Minnesota Press. 1958.
- CDI "Reflections on Contrary to Duty Imperatives." *Noûs* 1 (4): 303–44. DOI: 10.2307/2214622. 1967.
- CIL "Concepts as Involving Laws and Inconceivable without Them." *Philosophy of Science* 15 (4): 287–315. 1948. Paragraph numbering cited according to reprint in PPPW, 86–114.

- CPCI “Conditional Promises and Conditional Intentions (Including a Reply to Castañeda).” In *Agent, Language and the Structure of the World: Essays Presented to Hector-Neri Castañeda, with His Replies*, edited by James E. Tomberlin, 195–221. Indianapolis: Hackett. 1983.
- CSBA “Correspondence between Wilfrid Sellars and Bruce Aune 1961–1979.” In *The Metaphysics of Practice – Writings on Action, Community, and Obligation*, edited by Kyle Ferguson and Jeremy R. Koons, 658–731. Oxford: Oxford University Press. 2023.
- CSGH “Correspondence between Wilfrid Sellars and Gilbert Harman on Truth.” [www.ditext.com/sellars/sh-corr.html](http://www.ditext.com/sellars/sh-corr.html). 1970.
- EAE “Empiricism and Abstract Entities.” In *The Philosophy of Rudolf Carnap*, edited by Paul A. Schilpp, 431–68. La Salle, IL: Open Court. 1963.
- ENWW “Epistemology and the New Way of Words.” *Journal of Philosophy* 44 (24): 645–60. DOI: 10.2307/2019792. 1947. Paragraph numbering cited according to reprint in PPPW, 28–40.
- EPM “Empiricism and the Philosophy of Mind.” In *Minnesota Studies in the Philosophy of Science*, edited by Herbert Feigl and Michael Scriven, 1: 253–329. Minneapolis: University of Minnesota Press. 1956.
- FMPP “Foundations for a Metaphysics of Pure Process.” *The Monist* 64 (1): 3–90. 1981.
- GE “Grammar and Existence.” *Mind* 69 (276): 499–533. 1960.
- IILO “Imperatives, Intentions, and the Logic of ‘Ought.’” In *Morality and the Language of Conduct*, edited by Hector-Neri Castaneda and George Nakhnikian, 159–214. Detroit: Wayne State University Press. 1963.
- IKTE “The Role of Imagination in Kant’s Theory of Experience.” In *Categories: A Colloquium*, edited by Henry W. Johnstone, Jr., 231–45. Pennsylvania: Pennsylvania State University. 1978.
- IM “Inference and Meaning.” *Mind* 62 (247): 313–38. 1953.
- ITSA “Is There a Synthetic a Priori?” *Philosophy of Science* 20 (2): 121–38. 1953. Paragraph numbering cited according to reprint in SPR, 298–320.
- IV “Induction as Vindication.” *Philosophy of Science* 31 (3): 197–231. 1964.
- KPT *Kant and Pre-Kantian Themes: Lectures by Wilfrid Sellars*, edited by Pedro Amaral. Atascadero: Ridgeview. 2002.
- KTE “Some Remarks on Kant’s Theory of Experience.” *Journal of Philosophy* 64 (20): 633–47. DOI: 10.2307/2024460. 1967. Paragraph numbering cited according to reprint in KTM, 269–82.
- KTI “Kant’s Transcendental Idealism.” *Collections of Philosophy* 6: 165–81. 1976. Paragraph numbering cited according to reprint in KTM, 403–17.
- KTM *Kant’s Transcendental Metaphysics: Sellars’ Cassirer Lectures and Other Essays*, edited by Jeffrey Sicha. Atascadero: Ridgeview. 2002.
- LL “Draft for a Lecture in London on 23 May 1966.” Document 31735062221357, Box 40, Folder 01–08. Wilfrid S. Sellars Papers, Archives of Scientific Philosophy, Archives & Special Collections, University of Pittsburgh Library System. <https://digital.library.pitt.edu/islandora/object/pitt%3A31735062221357>. 1966.

- LLVI “Draft of Locke Lecture VI/SM chap. VII.” Document 31735062221431, Box 40, Folder 01–08. Wilfrid S. Sellars Papers, Archives of Scientific Philosophy, Archives & Special Collections, University of Pittsburgh Library System. <https://digital.library.pitt.edu/islandora/object/pitt%3A31735062221431>. 1965.
- LRB “Language, Rules and Behavior.” In *John Dewey: Philosopher of Science and Freedom*, edited by Sidney Hook, 289–315. New York: The Dial Press. 1949. Paragraph numbering cited according to reprint in PPPW, 117–34.
- LT “The Language of Theories.” In *Current Issues in the Philosophy of Science*, edited by Herbert Feigl and Grover Maxwell, 57–77. New York: Holt, Rinehart, and Winston. 1961.
- MEV “Mental Events.” *Philosophical Studies* 39 (4): 325–45. DOI: 10.1007/BF00360342. 1981.
- MFC “Meaning as Functional Classification – A Perspective on the Relation of Syntax to Semantics.” *Synthese* 27 (3/4): 417–37. DOI: 10.1007/BF00484606. 1974.
- MGEC “More on Givenness and Explanatory Coherence.” In *Justification and Knowledge*, edited by George Pappas, 169–82. Dordrecht: D. Reidel. 1979.
- ML “Meditations Leibniziennes.” *American Philosophical Quarterly* 2 (2): 105–18. 1965.
- MMM “Hochberg on Mapping, Meaning, and Metaphysics.” In *Midwest Studies in Philosophy II*, edited by Peter French, Theodore Vehling, Jr., and Howard Wettstein, 214–24. Minneapolis: University of Minnesota Press. 1977.
- MP “Metaphysics and the Concept of a Person.” In *The Logical Way of Doing Things*, edited by Karel Lambert, 219–52. New Haven: Yale University Press. 1969. Paragraph numbering cited according to reprint in KTM, 283–307.
- NAO *Naturalism and Ontology*. Atascadero: Ridgeview. 1980.
- NDL “Are There Non-Deductive Logics.” In *Essays in Honor of Carl G. Hempel*, edited by Nicholas Rescher, 83–103. Dordrecht: D. Reidel. 1970.
- NI “Notes on Intentionality.” *Journal of Philosophy* 61 (21): 655–65. DOI: 10.2307/2023043. 1964. Paragraph numbering cited according to reprint in PPME, 128–40.
- NS “Naming and Saying.” *Philosophy of Science* 29 (1): 7–26. 1962. Paragraph numbering cited according to reprint in SPR, 225–46.
- OAFP “On Accepting First Principles.” In *Philosophical Perspectives 2, Epistemology*, edited by James E. Tomberlin, 301–14. Atascadero: Ridgeview. 1988.
- OMP “‘Ought’ and Moral Principles.” A lecture from 1966. In *The Metaphysics of Practice – Writings on Action, Community, and Obligation*, edited by Kyle Ferguson and Jeremy R. Koons, 79–96. Oxford: Oxford University Press. 2023.

- ORAV "On Reasoning about Values." *American Philosophical Quarterly* 17 (2): 81–101. 1980.
- P "Particulars." *Philosophy and Phenomenological Research* 13 (2): 184–99. DOI: 10.2307/2103871. 1952. Paragraph numbering cited according to reprint in SPR, 282–97.
- PHM "Phenomenalism." In *Science, Perception and Reality*, 60–105. Atascadero: Ridgeview. 1963.
- PPME *Philosophical Perspectives: Metaphysics and Epistemology*. Atascadero: Ridgeview. 1977.
- PPE "Pure Pragmatics and Epistemology." *Philosophy of Science* 14 (3): 181–202. 1947. Paragraph numbering cited according to reprint in PPPW, 4–25.
- PPPW *Pure Pragmatics and Possible Worlds*, edited by Jeffrey Sicha. Atascadero: Ridgeview. 1980.
- PSIM "Philosophy and the Scientific Image of Man." In *Frontiers of Science and Philosophy*, edited by Robert Colodny, 35–78. Pittsburgh: University of Pittsburgh Press. 1962. Paragraph numbering cited according to reprint in SPR, 1–40.
- QMSP "Quotation Marks, Sentences, and Propositions." *Philosophy and Phenomenological Research* 10 (4): 515–25. DOI: 10.2307/2103418. 1950.
- RDP "Reply to Dennett and Putnam." *Synthese* 27 (3/4): 457–66. 1974.
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- RPH "The Refutation of Phenomenalism: Prolegomena to a Defense of Scientific Realism." In *Mind, Matter, and Method*, edited by Paul K. Feyerabend and Grover Maxwell, 198–214. Minneapolis: University of Minnesota Press. 1966.
- RQ "Reply to Quine." *Synthese* 26 (1): 122–45. 1973.
- SE "Science and Ethics." In *Philosophical Perspectives: Metaphysics and Epistemology*, 209–32. Atascadero: Ridgeview. 1977.
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- SPR *Science, Perception, and Reality*. London: Routledge and Kegan Paul. 1963. Reprinted by Atascadero: Ridgeview. 1991.
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- SRPC “Some Reflections on Perceptual Consciousness.” In *Crosscurrents in Phenomenology*, edited by Ronald Bruzina and Bruce W. Wilshire, 169–85. The Hague: Martinus Nijhoff. 1978.
- SRT “Is Scientific Realism Tenable?” *Proceedings of the Biennial Meeting of the Philosophy of Science Association* II: 307–34. 1976.
- SSIS “Science, Sense Impressions, and Sensa: A Reply to Cornman.” *The Review of Metaphysics* 24 (3): 391–447. 1971.
- SSMB “A Semantical Solution of the Mind-Body Problem.” *Methodos* 5: 45–84. 1953.
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- TC “Truth and ‘Correspondence.’” *The Journal of Philosophy* 59 (2): 29–56. DOI: 10.2307/2023294. 1962. Paragraph numbering cited according to reprint in SPR, 197–224.
- TE “Theoretical Explanation.” In *Philosophy of Science: The Delaware Seminar*, Vol. II, edited by William L. Reese and Bernard Baumrin, 61–78, New York: John Wiley. 1963. Paragraph numbering cited according to reprint in PPME, 141–56.
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- TWO “Time and the World Order.” In *Minnesota Studies in the Philosophy of Science*, Vol. III, edited by Herbert Feigl and Grover Maxwell, 527–616. Minneapolis: University of Minnesota Press. 1962.
- VR “Volitions Re-Affirmed.” In *Action Theory*, edited by Myles Brand and Douglas Walton, 47–66. Dordrecht: D. Reidel. 1976.
- WSNDL *Wilfrid Sellars – Notre Dame Lectures*. Edited by David Landy and Pedro Amaral. Atascadero: Ridgeview. 2018.

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