November 2, 2023

Plan for Week 10

Transcendental Semantics, Conceptual Progress, and Picturing

1. Two levels of semantics:
   - Internal normative, by functional classification: 'means', 'true', 'refers'.
   - External transcendental: matter-of-factual *picturing*. Relates conceptual *appearances* of material particulars to the *reality* certified by eventual ("Peircean") natural science.

2. Sellars's Program:
   - Assess **conceptual progress** by better *picturing* of the real, and
   - Define the **real** by a conceptual scheme that pictures *ideally* well.

3. Key moves are in §67-§69:
   a) We can understand our conceptual scheme (CSO) *picturing more adequately* the objects there really are, according to CSO, than does some *predecessor* conceptual scheme (CS_i).
   So:
   b) That is sufficient to understand the idea of some *successor* conceptual scheme CS_j that stands to CSO as CSO stands to CS_i, so that CSO pictures the objects of CS_j, but less adequately.
   Then:
   c) §69 Let us now go one step further and conceive of a language which enables its users to form *ideally* adequate pictures of objects, and let us call this language Peircish. [CSP]

4. Two Issues with the Argument:

   a) How transform *retro*spective into *pro*spective criteria of progress? (The "So" in 3a→b)
      - Wright on *superassertibility*.
      - Proposal: Invoke prospectively assessable technology.

   b) How move from justifying *comparatives* to justifying *superlative*? (The "Then" in 3b→c)
      - Unger point: Only some comparatives take superlatives.
      - *Convergence* of conceptual frameworks. Fixed points.
      - Modalities of convergence.

Introduction:

- Week 9 was about the concept of **appearance** as it figures in *SM*.

Week 10 is about the concept of **reality** as it figures in *SM*.

- Here Sellars confronts the question every naturalist, physicalist, or materialist faces: **what is the privileged scientific vocabulary** to which you accord a distinctive privilege as something like a complete specification of what there is (in a distinguished sense of "what there is")?

- Sellars has a bold strategy: **a version of Peirce's "ideal science at the end of inquiry." His strategy for making sense of this idea is fascinating, and it is our main topic today.**
  It is the argument of (3) on the Plan for this week: §67-§69.

- Of course there is also the question of how it relates the other vocabularies: reduction of facts-concepts? Supervenience? Source of referents for different senses?
  Sellars's answer is matter-of-factual **picturing**.

- Q: Which conceptual schemes (or portions of them)?
  A: Those portions that *describe material* objects.

- For Sellars, picturing, and so comparative adequacy of conceptual schemes, must be an *objective* matter of fact.

- If one appeals to natural science, which science? (Hempel talks about this issue.)

Sellars makes a bold move, plumping for a Peircean ideal.

- **In a later week will address the Price bifurcation issue: what distinguishes descriptive uses of vocabulary**? Sellars has told us the location in a space of implications is a necessary condition—distinguishing describing from labeling. But it is clearly not sufficient. Or at least, treating it as sufficient would trivialize scientific naturalism by falsifying it.

1) **<u>Two levels of semantics</u>**:

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Two semantic levels:

a) **Internal-functional**-normative.
What is picked out here is Sellars's **"nonrelational" semantics**.
It understands the use of semantic expressions in terms of **functional classification**, paradigmatically made explicit by the use of **dot-quotes**.
This is a matter of what is expressed by 'true', 'means', and 'refers'. It is a metalinguistic affair, appealing to *pragmatic* metavocabularies for specifying performances, practices, and abilities: things language-users *do*. One thing they do is functionally classify expressions as playing the same or similar functional-inferential roles. Semantics in this sense is an intralinguistic or interlinguistic affair, for both ends of the relation are conceptually articulated. As such, semantic relations are normative relations, specifiable (and in that sense, visible) only in a *normative* metavocabulary.

b) **External-transcendental**-factual. This is the level of **picturing**, where the ultimate relations between appearance and reality are to be understood. This is a specification of **the transcendental relations between empirical phenomena** (languages as actually used) **and the noumenal things-in-themselves that our conceptual representations are in some sense *appearances of***.
Kant thought we could know and say *nothing* about this relationship. It is a key feature of Sellars's bold transcription of transcendental idealism into a scientific realist key that he thinks we *can* know and say something about this relation of empirical appearances to noumenal reality. That is the job of the picturing story.

c) A key consequence of Sellars's aspirations for a transcendental semantics that is, contra Kant (who first distinguished semantics from epistemology), in principle epistemologically available to us, is that picturing, as a kind of trascendental reference, is an ***objective***, in principle empirically accessible relation.
The aspiration to be entitled to this claim sets important criteria of adequacy on his account of **conceptual progress**.

a) Appearance of Material Particulars, Reality of Material Particulars, Metalinguistic Stuff, and Picturing.
   i. Last week was on the concept of <u>appearance</u> and its recent history. This was as background and framing for Sellars's Transcendental Idealism as Scientific Naturalism.
   ii. This week we look to the concept of <u>reality</u> as Sellars's scientific naturalism requires it.
   iii. The third component is the officially only quasi-semantic notion of picturing.

   What we should say, I suppose, is that ***empirical*** **semantics** for Sellars—the use of semantic expressions in the nonscientific language of common sense—is metalinguistic functional classification. Picturing is ***transcendental*** **semantics**.

   Compare: material objects as conceived in the common-sense conceptual framework are empirically real but transcendentally ideal.

According to the argument of *SM*: The protasis of the *scientia mensura* should not say "In the dimension of describing and explaining…". It should say "**In the dimension of describing and explaining *material objects*…**". Further, "material objects" are "this-suches" that meet further strenuous conditions. Stock markets, prices, and moods are not included.

Accordingly, **one should treat all of these differently as far as mapping them onto the Peircean scientific conceptual framework:**

- **material objects as conceived in the common-sense conceptual framework**
- **descriptions expressed in the common-sense conceptual framework**
- **nondescriptive, for instance alethic modal (used in explanations paired with description) normative, classificatory-functional, personal vocabulary of the common-sense framework.**

There is *something*, though, to the idea of Sellars's "scientific realism" as just inverting instrumentalism—turning it on its head. Instrumentalism about theoretical entities says that they are not real, the terms that apparently refer to them are just calculational devices to codify relations among observational terms. Scientific realism then says that *only* theoretical objects are real, and terms with observational uses specify only *appearances* of those theoretical objects. This is Eddington's two tables with a vengeance—Eddington's view elevated to a whole transcendental metaphysics. This is rescuing philosophy of science from empiricist phenomenalism, of the *Aufbau* sort. But at what a price!

§95: The claim that **the common-sense framework is transcendentally ideal**, i.e. that there really are no such things as the objects of which it speaks, can no be reassessed and reformulated. We must distinguish carefully between saying that these objects do not really exist and saying that **they do not really exist *as conceived in this framework*. For they do really exist** as conceived in what, omitting the qualifications which were introduced in the preceding section, we have called **the Peirceian framework, the framework which is the regulative ideal which defines our concepts of ideal truth and reality**.

BB: He talks as though *all* the objects (and kinds?) of the MI = common-sense framework *have* successors in the Peirceish framework. But surely some do not.
Sellars is happy to use sense/referent talk here, but we must be careful about just how he understands it.

> I should emphasize that **this *semantic* distinction, between empirical/transcendental semantics is a Sellarsian innovation, and is an important perspective on his transcendental idealism.**
> The two sorts of semantics play different explanatory roles.
> (This is piled on top of Dummett's "theories of meaning"/"meaning theories" distinction, which is still on the side empirical semantics in Sellars's sense (the sense I am finding in Sellars).
> iv. We should really keep separate books on the status of the normative, modal, and other broadly metalinguistic ('broadly' as involving *pragmatic* MVs) concepts. They do not go in the same box as descriptive-explanatory concepts of the common-sense framework.

b) Sellars is according a certain kind of *ontological priority* to *material things* as conceived by *natural science*.
The priority is the status of his successor notion of <u>transcendental reality</u>, as defined in his *transcendental semantics* of picturing.

> **We can separate analytically his emphasis on *materiality* from the ontological nominalism of focusing exclusively on material *particulars***.
> For our purposes today, we care only about the materiality.
> Sellars lines up that materiality with *description* (and so explanation), for what NatSci has authority over, according to the *scientia mensura*, is description-and-explanation.
> In fact, I think <u>description</u>, a function specifiable in a *pragmatic* MV, is much broader than materiality. It can apply also to *metalinguistic* vocabulary, as WS identifies it: alethic modal and normative vocabularies, to begin with.

c) For **any sort of materialism**, for instance
- Reductionists that claim all facts are specifiable in the language of physics,
- Supervenience-on-the-physical
- Lewisian functionalists using physical scientific vocabulary to specify *best realizers*.

All have to address the question: **which natural science or physics**?

d) Not contemporary, since we make the ***fallibilist metainduction*** and take it that the stage in the development of science that we find ourselves at right now, this contingently selected time-slice, is, like all of its predecessors, both *incomplete* and in many ways *incorrect*.

We also, however, take there to have been ***progress***, along both epistemic dimensions: completeness and correctness, shrinking the areas of which we are *ignorant* and also eliminating some of the *errors* or mistakes we have made.
The science we want to invoke in making claims that ontologically privilege the products of the best science want to look beyond the present to a somehow *idealized* science, further along in *progress* on both these fronts.

e) Further, the *warrant* for some sort of *ontological* or even *epistemological* privileging of the natural sciences depends on their being *progressive* and *cumulative* in a way that other disciplines are not, or can at most aspire to.

[2006:] Demarcating the natural: This story has to do with the *relations* between the *target* and *base* vocabularies or phenomena. But there is also an issue about the nature of the *base* vocabulary, and how it is picked out:

a) What language (whose objects or concepts) is to be privileged by naturalism?
   i. **Fundamental physics**;
   ii. **Natural sciences conceived narrowly: physics, chemistry, biology**; If we give up (for Putnamian reasons) the idea that the rest of physics, chemistry and especially biology—think of population biology, which is what Mendelian genetics became once molecular biology about the realization of the *functional role* (cf. multiple realizations) *gene* is split off from it)--are *reducible* to fundamental physics, we might include these *general* natural sciences in the base vocabulary.
   iii. **Also special natural sciences: geology, astronomy, natural history, meteorology**…; (But notice that Fodor will claim that there is no reason *semantics* should not be considered such a special science. Is the criterion of inclusion *methodological*? If so, how can it be formulated? Is it an epistemological, ultimately, an *empiricist* criterion?)
   iv. **Also empirical (observation-based) descriptive uses of ordinary, non-technical vocabulary**, on the basis that science is a sophisticated extension of ordinary ways of finding out about how things are.
   v. **What about the *social* sciences: population biology, psychology, sociology, political science**…? Is it these only insofar as they are *empirical* rather than *hermeneutic*? Does economics get in insofar as it is empirical rather than purely mathematical?
   vi. **If logic and mathematics are allowed in, is that merely as auxiliaries to the genuinely empirical-natural sciences? Or are they on a par?** Saying the latter would require acknowledging that there really are mathematical objects, even though our contact with them is not causal and observational.
   vii. What about **the human-hermeneutic sciences—the 'soft', text-based, more literary wing of the *Geisteswissenschaften***? If so, is that because they do not really have a different form of knowing-understanding, but, properly pursued, are methodologically of a piece with the Naturwissenschaften?

I'm going to take this set of views seriously, but not take it to be a decisive *objection* to naturalism. It is a *problem* or a *challenge* to the *definiteness* of any naturalistic thesis. One will

only have as clear and precise a naturalistic claim as one has a specification of the natural and its relation to various sciences. But lots of issues in the vicinity can be addressed even if we don't have a good answer to this (nonetheless important) question. So we should keep it in mind, but not take it as relieving us of the obligation to consider other issues about naturalism.

b) Whatever choice we make on that issue, and however it is motivated (methodologically, so involving commitment to some kind of empiricism as a *condition* of our naturalism, or of the criterion of demarcation of the natural), is it the *current* versions of those sciences that are to be considered ontologically authoritative, or some *ideal* or *eventual* versions?

i. The principal consideration against plumping for the current version is that it seems arbitrary. Every previous theory has turned out to be wrong, at least in its details, and often in its fundamentals. What reason could we have to rule out the possibility of a more authoritative revolutionary successor? This was not so much an issue in pre-Kuhnian days, when we had a more Whiggish picture of the progress of science. But if there are and by rights ought to be conceptual revolutions, even quite fundamental ones, even in fundamental physics, but also in all the others (Are there really such progressive revolutions at the softer end of the spectrum in (a)? Hegel thinks that the Great Change of modernity is one, for sure.) what business would we philosophical naturalists have to privilege our current perspective?

ii. The principal consideration against granting the ontological authority or privilege to an ideal or later version is that it is difficult on the one hand to define the ideal, and on the other to exclude perverse actual contingent developments of the scientific tradition. Scientific institutions *might* be taken over by theological fanatics who introduce explanatory desiderata such as *pleasingness to God* or *fidelity to scripture*. What *actually* happens to those institutions does not seem worthy of privileging in our understanding of what is real or really exists. On the other hand, how do we define the ideal in a non-circular, hence non-question-begging way? Peircean views have this trouble, and so do even quite sophisticated contemporary counterparts such as Wright's superassertibility.

Sellars's Program:

- Assess **conceptual progress** by better *picturing* of the real, and
- Define the **real** by a conceptual scheme that pictures *ideally* well.

These look suspiciously circular.
The initial suspicion can be dispelled, but there is *something* fishy about this strategy.

"Linguistic picture-making is not the performance of asserting matter-of-factual performances. **The *criterion* [BB: cf. rules of *criticism*] of the correctness of the performance of asserting a basic matter-of-factual proposition is the correctness of the proposition *qua* picture**, i.e. the fact that it coincides with the picture the world-cum-language would generate in accordance with the uniformities [normatively] controlled by the semantical rules of the language. **Thus the *correctness* of the picture is not defined in terms of the *correctness* of the performance, but vice versa.**" [136, §57]

1) The discussion proceeds at two different levels, through which we trace historical developments:
   a) **At the level of conceptual schemes**. Here we have the Peircean framework CS_P, at the later, distal end, and at least current science CS_{now}, at the proximal end of a sequence of descriptive schemes for material objects. I say "at least" because it might be that the descriptive apparatus for material objects in the commonsense scheme is the true point of origin, and the current nat-sci conceptual scheme is to be understood as a development of it. I think that is right in some sense. But it seems unnecessarily crude to assimilate:
      i. The move from commonsense to current science in material-descriptive [see note below] resources to
      ii. The move from one stage in the development of the material-descriptive resources of nat-sci to another, later stage.

      It does seem that this assimilation is required for getting the picturing relation to hold between the commonsense framework and the Peircean framework.
      [Material-descriptive: A topic for next time is whether "descriptive" and "material object" are linguistic/nonlinguistic counterparts, or whether there can be genuinely descriptive uses that do not purport to pick out *material* objects. If so, then in addition to keeping separate books (w/res to picturing) on descriptive and nondescriptive resources of the commonsense framework, we will need to keep separate books on the descriptive-material and descriptive-non-material resources of the schemes.]
   b) **At the level of picturing**, where we are **not concerned with *conceptual* progress** to the Peircean ideal **but with matter-of-factual mapping relations** ("regularities") between projected (and in a sense, idealized, since we think of the robots as writing *everything* down) "regularities" of inscriptions, thought of as events or episodes involving natural linguistic objects (= "sign designs", the signpost thought of just as a piece of wood).

2) **<u>Key moves are in §67-§69</u>**:

a) We can understand our conceptual scheme (CSO) *picturing more adequately* the objects there really are, according to CSO, than does some *predecessor* conceptual scheme (CS_i).
So:

b) That is sufficient to understand the idea of some *successor* conceptual scheme CS_j that stands to CSO as CSO stands to CS_i, so that CSO pictures the objects of CS_j, but less adequately.
Then:

c) §69 Let us now go one step further and conceive of a language which enables its users to form *ideally* adequate pictures of objects, and let us call this language Peircish. [CSP]

The issue is how to specify an ***objective*** notion of conceptual progress in science.
Can such a notion be made intelligible?
Issue is not at all whether we can *tell* in advance what is progressive: the *epistemological* problem.
It is whether we can make sense of it, say what would have to be true for a move to *be* progressive, not just be *thought* to be so.
It is not to be a matter of what anyone *takes* to be progress (a matter of attitudes) but of attitude-independent *fact*.

Here are the core two moves Sellars is making:
§67 Thus the purely formal aspects of logical syntax [in §66 his example is the distinction between *n*-adic and *m*-adic predicates] give us a way of speaking which abstracts from those features which differentiate specific conceptual structures, and **enables us to form the concept of a domain of objects which are pictured in one way (less adequate) by one linguistic system, and in another way (more adequately) by another. And we can conceive of the former (or less adequate) linguistic system as our current linguistic system.**
Here the move seems to be:

d) We can understand our conceptual scheme (CSO) *picturing more adequately* the objects there really are, according to CSO, than does some *predecessor* conceptual scheme (CS_i).
So:

e) That is sufficient (there is some way to algorithmically elaborate that understanding so as?) to understand the idea of some conceptual scheme CS_j that stands to CSO as CSO stands to CS_i, so that CSO pictures the objects of CS_j, but less adequately.
Then:

f) §69 Let us now go one step further and conceive of a language which enables its users to form *ideally* adequate pictures of objects, and let us call this language Peircish. [CSP]

This last 'Then' is the move from *comparatives* to a *superlative*.

Cf. the Unger point: some comparative admit paraphrase in terms of superlatives, and some do not. 'Flatter' is equivalent to 'more nearly perfectly flat', but its opposite, 'bumpy' is *not* equivalent to 'more nearly perfectly bumpy,' because that notion is not even coherent.

The first move is projecting a notion of *progress* from a *retro*spective conception into a *pro*spective one.

He will later put qualifications on the ideality of CSP:
Qualification 1: §75 Notice that although the concepts of 'ideal truth' and 'what really exists' are defined in terms of Peirceian conceptual structure**, they do not require that there ever be a Pierceish community**. Peirce himself fell into difficulty because, by not taking into account the dimension of 'picturing', he had **no Archimedeian point outside the series of actual and possible beliefs in terms of which to define the ideal or limit to which members of this series approximate**.
Qualification 2: §76 Nor need ideal matter-of-factual truth be conceived of as one complete picture existing in simultaneous splendour. The Peirceish method of projection must enable picturings (by observation and inference) of *any* part, but this does not require a single picturing of *all* parts.

There would seem to be 3 principal questions raised by this line of argument:

1. Conceptual issues in transforming an essentially *retro*spective conception of sense in which *our current* view improves on prior ones—where we can give specific reasons for each of our current beliefs and concepts and their superiority over their specific predecessors—into a *pro*spective criterion for which further developments *would* be progressive.
   The trouble is that it is not enough that our successors *think* they have reasons.
   The reasons need to be *good* reasons.
   Good reasons by *their* lights is not good enough (they could think pleasingness to God or consilience with scripture is a good, indeed, overridingly good, reason).
   And good reasons by *our* lights won't do either, since we are talking precisely about improvements to what *we now take* to be better reasons.
   One wants to invoke concepts such as truth or reality, or objectively good reason.
   But what one is aiming at is something that will serve as a *criterion* of truth, reality, and good reasons (the Peircish conceptual scheme).

"…**one conceptual framework can be more 'adequate' than another**, and this fact can be used to define a sense in which one proposition can be 'more true' than another. Once again I find myself in the position of attempting to revitalize themes in nineteenth-century Idealism. My primary aim in this chapter is to explain this 'comparative' sense of truth with respect to matter-of-factual propositions….

In the case of factual propositions we are haunted by the ideal of *the* truth about the world." [134-135, §54-55]

"Linguistic picture-making is not the performance of asserting matter-of-factual performances. The *criterion* [BB: cf. rules of *criticism*] of the correctness of the performance of asserting a basic matter-of-factual proposition is the correctness of the proposition *qua* picture, i.e. the fact that it coincides with **the picture the world-cum-language would generate in accordance with the uniformities [normatively] controlled by the semantical rules of the language**. Thus the *correctness* of the picture is not defined in terms of the *correctness* of the performance, but vice versa." [136, §57]

3) Two Issues with the Argument:

a) How transform *retro*spective into *pro*spective criteria of progress? (The "So" in 3a→b)
   - Wright on *superassertibility*.
   - Proposal: Invoke prospectively assessable technology.

b) How move from justifying *comparatives* to justifying *superlative*? (The "Then" in 3b→c)
   - Unger point: Only some comparatives take superlatives.
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a) How transform *retro*spective into *pro*spective criteria of progress? (The "So" in 3a→b)

An issue:
When I actually look back from CSO to some earlier CSi, I can give *reasons* that *justify* my claim to the greater adequacy of the current scheme. Those claims can be interrogated, challenged, and subject to critical debate.
When I *suppose* there is a CSj that stands to the actual CSO as CSO stands to CSi, I cannot suppose the *reasons* that justify the claim that CSj is more adequate than CSO. I don't know the details about CSj, and if I *could* argue for and justify in detail the claim of its superiority to CSO, I would adopt CSj in place of CSO. Conjecturing a CSj in *this* rich sense is just doing science, getting the next, better theory.
In the absence of such a *concrete*, *justifiable* candidate successor CSj, what am I supposing about my reasons? There seem to be two possibilities:

i. I am supposing that I *take* myself to have reasons for the superiority of CSj over CSO. After all, in the case of CSO over CSi, I *do* take myself to have such reasons.
ii. I am supposing that I not only *take* myself to have such reasons, but actually *do* have good, concrete, reasons, sustainable against objections.

The worry is that **(i) is not good enough**. Merely having a story about the superiority of the successor is far too weak a criterion for actual superiority.
As for (ii), **what is the content of the surplus of (ii) over (i), in the absence of actually having the supposed reasons**?
Here the worry is that any story that supposes (ii) beyond (i) is circular.

As for the insufficiency of merely *thinking* I have reasons:
We can imagine that scientific institutions are captured by political or religious forces.
They introduce new criteria of "scientific" adequacy that place great weight on consilience with the party line, sacred scripture, or a theological view about what is "pleasing to God."
These conceptual changes need not be greater than those that moved us from denying Aristotelian *efficacy of place* (different rules for sub- and super-lunary motion) in favor of

Newtonian neutrality, and then back to efficacy of place with the geometrodynamics of Einstein's General Relativity.
In short, the mere *retrospective conviction* that the successor framework is *rationally* superior to its predecessor is too easy to satisfy in cases we do *not* want to count as genuinely *progressive.*

What about the alternative: supposing there are *good* reasons to prefer the supposed successor to CSO? Well, **what are we actually supposing about the reasons, beyond that I** (we, the community of scientific inquirers) ***takes* them to be good reasons, when we stipulate that they *are* in fact *good reasons*?**
Here the best I can do is consider a live alternative.
The too-weak Option (i) can be expressed as the supposition that claims of the form
"There are good reasons to prefer CSj to CSO are *assertible*, by later scientists, according to their standards."
That is not good enough, because nothing about the supposition stipulates that their standards of assertibility are not defective or corrupt.

Crispin Wright has suggested a stronger notion, to get the effect of stipulating that what are *taken* to be good reasons *really are* good reasons.
This is his notion of ***super*assertibility**.
[Wright, Crispin, 1992, *Truth and Objectivity*, Cambridge MA: Harvard University Press.]
"A statement is superassertible, roughly, if there is a state of information available which warrants it and it is warranted by all achievable enlargements of that state of information."
This is offered as part of a "pragmatist theory of truth", or of one kind of truth, or as the core of a pragmatist successor-concept to truth.

By **a "pragmatist" theory**, Wright means **one that starts with *justification***—our justificatory, reasoning practices—and **understands the status of being true in terms of them**.

A paradigm of **the contrary *realist* (Platonist) theories, which adopt the converse order of explanation, starting with truth and understanding justification and reasons in terms of it**, is justificatory ***reliabilism*,** according to which what really matters epistemologically is the distinction in status between beliefs that are the products of "reliable belief-forming mechanisms" and those that are not.

"Reliable" is then understood in terms of the probabilities of producing truth beliefs.
The reliabilist idea is that having *reasons*, being able to *justify* rationally one's beliefs is just *one* reliable belief-forming mechanism. Noninferential observation, for instance, is another.
(My complaint about the demotion of reasoning, inference, and reason relations of implication and incompatibility by reliabilist epistemologists (such as Alvin Goldman and …) is that they ignore the crucial role *those* notions play in *semantics*: in understanding the *believable contents* that are *candidates* for endorsement. The role of *reason relations* in articulating those contents cannot be taken over entirely by reliability.

The suggestion we are examining is that the surplus of supposing that the successor framework CSj to our current CSO can be justified by *real reasons*, and not just by what its advocates *take* to be good reasons is Wright's idea that in addition to invocation of reasons being *assertible* according to their practices (justifiable by their lights)—which we saw to be inadequate to define real conceptual progress—we require that the invocation of reasons be *super*assertible, in the sense that its assertibility is robust under arbitrary extensions of their information.

I claim that **superassertibility** so conceived **is either empty or circular**.
Everything turns on what is meant by adding "**information**."

- If that means that the inferences are robust (remain good) under the addition of ***arbitrary additional premises***—that is, things that are *taken* to be information—then the condition is empty. For what *no* inference remains good in the context of all possible additions of *false* collateral premises or auxiliary hypotheses.

If "additional information" is just "other claims that are *taken* to be true," then nothing is superassertible. And in any case, on this reading, why would we *care* about superassertibility? It still doesn't take us out of the realm of what our successors *take* to be true.

- What we *are* interested in is claims that are not only warrantedly assertible by our successors' lights, but also *remain* so under combination with arbitrary further *true* claims. That is a valuable status.

But in the context of trying to define truth (or a pragmatist successor-concept to truth) in terms of justification, it is viciously circular to restrict "additional information" to *true* claims.

We see another version of an attempt at a pragmatist definition of truth or a truth-like concept in **J.T. Whyte's "success semantics**". He wants to define a claim as true just in case acting on it practically, using it as a premise in one's practical reasoning, will always be successful, in the sense of satisfying the desires one is aiming to satisfy. The problem is that this will not be so in the presence of collateral false beliefs, or even in the presence of further truths of which one is unaware. I lay out the argument for this in my short piece "Unsuccessful Semantics", which is on the website under "Supplementary Readings."

The discussion of Wright's superassertibility (with a glance back at "Unsuccessful Semantics") is *a propos* here.
Wright defines "superassertibility" as assertibility-by-us-here-now that is robust under "addition of arbitrary new information."
But if "information" just means "further beliefs," including false ones, then nothing is robust in this sense.
And if "information" is restricted to "further *true* claims," then the account is circular.
Whyte's attempt to define *truth* as the property of beliefs that "would lead to successful satisfaction of desires" when they are employed in practical reasoning, we similarly face the difficulty that *no* beliefs have such a property when combined with other false beliefs, or even in the absence of knowledge about further matters of fact.

The lesson of the Wright/Whyte counter-arguments is that in trying to get a *prospective* account of progress, there are twin pitfalls to be avoided:

- Giving a criterion that does not rule out conceptual degeneration, so is not a good definition of *progress*.
  This is because one cannot rule out *collateral errors* that, when combined with the situation one said suffice for progress or ideality, spoil it.
  And *ignorance* is as bad as *error*.
  or
- Giving a criterion that presupposes a notion of progress, ideality, correctness, or truth, and so is *circular*. In particular, there seems no way noncircularly to rule out either error or ignorance.

In connection with Wright's superassertibility, my argument in "Unsuccessful Semantics."
Crispin Wright's superassertibility. A claim is superassertible iff it is assertible (by us now) and its assertibility is robust under arbitrary increases in our information.
My complaint about this definition is that the question is begged by appealing to "increases in information." *Nothing* is robust under addition of further arbitrary beliefs, independent of their truth and falsity. "Information" is by definition *true* here. But then we might just as well appeal to the notion of truth. But superassertibility is supposed to take over the jobs that were done traditionally by that notion.
FEE:
I have bracketed concerns about Sellars's commitments to a Peircean end-of-inquiry science, conceived of as the limit asymptotically approached by properly conducted empirical theorizing. In fact I think it is very difficult to make sense of this notion, for the same reasons I have offered in objecting to Crispin Wright's similar appeal to 'superassertibility' as assertibility by current justificatory standards and evidence that is robust under arbitrary improvements in or additions to our information. Firmness under revisions by adding information is an epistemically valuable property (a characterization of something we ought to aim at) only if 'information' is restricted to *true* claims. If not, if it just means something like then-warranted, it will include lots of *false* claims. And there is no reason to esteem epistemically claims commitment to which would be robust under the addition of arbitrary false claims, even if warrantedly believed. Such accounts of what inquiry aims at seem bound to be either circular (because implicitly invoking notions of truth—perhaps in the guise of information—or improvement) or normatively unsatisfactory, because not specifying properties of our views we have reason to aspire to achieving.

Proposal: Technology can combine *prospective* and *retrospective* assessments:
This thought in a way combines what was right about Wright's and Whyte's proposals.
Look to *technology*: keeping the machines running.
Specifically, look to the extent to which *later* theories can do better at fulfilling demands that *earlier* folks *are* in a position to assess better-or-worse for.

Punchline of the discussion of conceptual-scheme-space, methodologies, and convergence/fixed-points is my suggestion that *technology* (as in my review of the Rapp volume) can fund a notion of *progress*, or at least allow *retrospective* assessments of progress (and so something we can *mean* prospectively when talking about what would now count as progress in the future, while definitionally ruling out various degenerate self-congratulatory retrospective ideological takeovers of scientific institutions. ("pleasingness to God" as an overall 'explanatory' *desideratum*.)
My own idea is to appeal to *technology*. Later will be better (moves will be progressive)—without any presupposition or guarantee of reaching an eventual ideal limit—just in case
a) a suitable retrospective story about progressiveness can be told from the pt of view of each later CS. This will not rule out all the sorts of derailment threatened in the argument against "better is just later" above. "Suitable" is a weak constraint, but it stands in for a real constraint.
b) All the machines can be kept running. The new theory explains why the technology works as well as it did.
c) The technology can be improved by the new theory.
Q: Who decides what is *improvement* in the technology? Again, retrospective assessment can invoke criteria such as pleasingness to God etc..
A: Here is my distinctive answer: Technology improvement can be assessed *prospectively*. Aristotle could not marvel at our capacity to discover new subatomic particles or measure the mass, charge, and spin of the electron. We could be making that stuff up, with supercolliders just expensive props. But he can tell that we are *much* better at making large holes in the ground, building buildings, and moving around on land, sea, and air.
Greek knowledge was preserved because the Greek doctors could do something the desert Arabs could appreciate: save warrior's lives from wounds the Arabs *knew* were fatal. That was enough for them to esteem the theoretical apparatus (e.g. microcosm and macrocosm) that stood behind it.

c) **How move from justifying *comparatives* to justifying *superlative***? (The "Then" in 3b→c)

- Unger point: Only some comparatives take superlatives.
- *Convergence* of conceptual frameworks. Fixed points.
- Modalities of convergence.

The move from a definition (supposing we have that, after point (1)) of a *comparative* to the definition of a *superlative* must confront **the Unger point**.
Only some comparatives take superlatives: 'flatter' does, 'bumpier' does not.
'Flatter' is equivalent to 'more nearly perfectly flat', but its opposite, 'bumpy' is *not* equivalent to 'more nearly perfectly bumpy,' because that notion is not even coherent.

Convergence:

Simplest idea would be a **fixed point**:
We get to a conceptual scheme that does not need to be changed, a fully adequate system of concepts for understanding the material world.

Conceptual Fixed Points: In fact, one does not need a notion of *convergence*, which though it need not depend on a literal *distance* measure, still needs some comparison of *closer* than.
For *any* repeated operation can lead, at least under certain circumstances, to *fixed points*.
These are points where repeating the operation does not lead to anywhere new. Applying f to f(x) yields f(x): f(f(x))=f(x). If that holds generally, the operation is *idempotent*. If it holds for a particular point, that is a *fixed point*.
All Sellars really needs for his Peircean strategy is the idea of science reaching a fixed point conceptually, in the sense that repeated applications of scientific inferential moves, and language-entry, and language-exit transitions never obliges one to change one's *concepts*, though of course one can acquire new *beliefs* and perform new *actions*.

Hegel: Denial of conceptual fixed points is affirmation of the inexhaustibility of sensuous immediacy. Start with Kant's notion of inexhaustibility of sense in infinite sequence of judgments required to fully codify deliverances of senses. With the Quine-Wittgenstein-Sellars appreciation that change of belief can rationally require (LW would not say "rationally") change of concepts, and room is opened for Hegel's view. Maybe that brings us back to need for a notion of conceptual convergence.

a) **Kant vs. Hegel on the inexhaustibility of sensuous immediacy**.

b) Sellars has projection schemes that would allow new claims ("Ball here now,"), but does not address plausibility of a *finally* adequate conceptual scheme, in the sense that CSP, the Peircean conceptual scheme (for which Sellars has cleverly used Peirce's initials) would never need to be changed, and so is a fixed point.

c) **More plausible is the idea that the sense in which the Peircean scheme is *ideal* is that it is what the sequence of ever-more-adequate schemes *converges*** to.

. . . to assert that there are external things which can be known only as exerting a power on our sense, is nothing different from asserting that there is a general *drift* in the history of human thought which will lead it to one general agreement, one catholic consent. (CP 8.12)

The view in question may be called "methodological realism", enunciated well by Peirce:

> There may be some questions concerning which the pendulum of opinion would never cease to oscillate, however favorable circumstances may be. But if so, these questions are *ipso facto* not *real* questions, that is to say, are questions to which there is no true answer to be given. (CP 5.461)

> Different minds may set out with the most antagonistic views, but the progress of investigation carries them by a force outside of themselves to one and the same conclusion. This activity of thought by which we are carried, not where we wish, but to a fore-ordained goal, is like the operation of destiny. No modification of the point of view taken, no selection of other facts for study, no natural bent of mind even, can enable a man to escape the pre-destinate opinion. This great hope [in first draft: "law"] is embodied in the conception of truth and reality. The opinion which is fated to be ultimately agreed to by all who investigate is what we mean by the truth, and the object represented in this opinion is the real.(5.407)

Quine says convergence is defined for numbers, not theories.

converge and those which diverge. We will not consider Peirce's account in its details since, as Quine has pointed out, it suffers from

> . . . a faulty use of numerical analogy in speaking of the limit of theories, since the notion of a limit depends on that of 'nearer than', which is defined for numbers and not for theories.[87]

From *Word and Object* p. 23

Rosenberg suggests that's good enough, using co-efficients of laws we've gotten more or less right.

In LI, I argue that convergence is actually defined also for continuous lattices, and that the worlds formed by union and intersection form such lattices.

Concerns about *convergence* (Weierstrass and Cauchy, Quinean objection) and *fixed points* (hence *Logic of Inconsistency* methodological discussion) fit here, because they are ways of construing a final steady-state *limit* as a kind of superlative, from a merely comparative notion ("closer to"). It would be worth thinking about the genus here, and what distinguishes a few of its species.

> he genus is something like ***techniques for projecting ideal limits from comparisons*.**
> The genus comprises as important species at least:
> - **superlatives** from comparatives,
> - **convergence** given comparison—
>
> the '<' of the "For every ε there is a δ s.t. **lim-f(n+δ)<ε**," for Weierstrass, and "For every ε there is a δ s.t. **f(n+δ)-f(n) <ε**," for Cauchy convergence.
> - In response to Quine's observation that "convergence is defined for numbers, not theories," Convergence of paths on a *complete* lattice (as in *Logic of Consistency*, Appendix V). Admittedly, not very interesting for the finite case, but nontrivial for infinite complete lattices.
> - **Fixed points** of iterated applications of functions where domain-sets and range-sets coincide: involutions of a single set (which are guaranteed to have fixed points under various, perhaps surprisingly weak, conditions).

Modalities of Convergence:

CSP talks about the opinion "fated" to be agreed upon, if we just do well and keep at it. But what if there are contingencies, and no such necessity. The construction in LI suggests that there might be a dependence on where we start—not just how far from right, but particular mistakes we make that send us in wrong directions. And it could be that for some starting-points there is a fated conclusion. But it might be different for different starting-points. Do a botanization of the possibilities here, with the iterated modalities.

Next: Discussion of the ***modality* of Peirce's original: "the view *fated* to be arrived at."**
Conceptual frameworks as perspectives, modeled on visual perspectives. (Moore)
Methodologies as definings transitions, and so paths through space of conceptual frameworks.
The alternative modalities of methodologies (as from *The Logic of Inconsistency*):

- **guaranteed to converge on a *unique* result, independently of starting-point,**
- **guaranteed to converge to a *unique* result for *some* starting-points,**
- **guaranteed to *converge*, independently of starting-point.**
- **guaranteed to *converge* for *some* starting-points.**

Space of conceptual schemes plus methodologies, using fixed points:

a) Suppose one had a parameterization of conceptual schemes, so that each could be located at a "position" (or as a region…) in some "space." Paradigm: phase spaces in physics, e.g. the 6-dimensional phase-space of classical mechanics.
b) Then one could define a *methodology* as a function that, when given as an argument a conceptual scheme (or perhaps a sequence of them, since methodologies need not be Markov processes), would yield a further one: the next step. I am thinking of these very abstractly, at something like the same level as voting functions, that aggregate preference orderings.
c) Then we can look at what happens when we sequentially apply a particular methodology. Dependence on starting point as to whether it converges at all, and if so, where.
d) The Peircean picture, given its modal language "fated to be agreed upon", I think envisages the following situation.
    i. For the *correct* methodology of science, there is a conceptual scheme such that no matter where we start (initial conditions), if we apply the methodology enough times, we will reach that scheme as a fixed point.

    But we can consider methodologies that are less ideal.

    ii. Perhaps only some starting points have methodological paths to the preferred fixed-point using that methodology. Maybe some others lead to different fixed points.
    iii. Or to no fixed points.
    iv. Perhaps there are intermediate positions that are *bad* in the sense that they are dead ends: if the chosen methodology with the particular starting-point gets *there*, then bad things happen: no fixed-point, 'wrong' fixed-point, permanent oscillation.

We are doing a kind of *reverse Agrippan trilemma construction*.