I. Atomism and Analysis

In our last class, on logical empiricism, we saw that Wittgenstein’s account of our knowledge relied on atomism and analysis. Atomism is the claim that particular matters of fact are independent of each other. Analysis is the claim that complex matters of fact (which are all that we ordinarily perceive) are logical compositions of atomic matters of fact, both in the world and in our representations, or pictures, of the world. Truth, then, is an isomorphism between the world and our pictures of the world, a structural similarity. If empiricist foundations are going to secure our knowledge, then there must be some beliefs about atomic facts which serve as the foundations. There must be some starting points, some givens.

Sellars calls the atomic aspect of foundationalist views the myth of the given:

There is, indeed must be, a structure of particular matters of fact such that (a) each fact can not only be noninferentially known to be the case, but presupposes no other knowledge either of particular matter of fact, or of general truths; and (b) such that the noninferential knowledge of facts belonging to this structure constitutes the ultimate court of appeals for all factual claims - particular and general - about the world (120).

II. Color Incompatibility

The problems of atomism arise in the Tractatus already, in the worry about whether there really are atomic, independent facts. Wittgenstein never gives a clear example of an atomic fact. Russell used the example of the color of a spot in my field of vision. A spot in one’s field of vision seems as likely a candidate for an atomic fact as any. Atomic facts were supposed, by definition, to be all independent. Wittgenstein noticed that even such facts carry some sort of entailment relations.

6.3751. It is clear that the logical product of two elementary propositions can neither be a tautology nor a contradiction. The statement that a point in the visual field has two different colors at the same time is a contradiction.

The atomic facts both must be, and are not, independent. Jerrold Katz, in “The Problem in Twentieth-Century Philosophy,” characterizes Wittgenstein’s 6.3751 as the central problem in twentieth-century philosophy. To explicate the problem, he considers:

1. The spot is red and blue.
2. The spot is red.
3. The spot is not blue.
4. The spot has a color.
5. Red is a color.
6. The spot is green.

Each of the propositions used in 1-6 is supposed to represent an atomic fact; 1 and 3 are logical products of simpler elementary propositions. But 1 is a contradiction. 2 and 5 are incompatible, and 2 entails 3 and 4. There are some kinds of logical relations among these propositions, even though they appear to be elementary. The world appears not to be atomic, in the way that the *Tractatus* depicts. The particular beliefs that are supposed to be the starting points of our knowledge seem not to be independent. They seem to require, or presuppose, a whole battery of other facts that come along with them. If the elementary propositions are inter-dependent, it is difficult to see how they could serve as the foundations of other beliefs. If the proposition that this spot is green entails that it is not red, and not purple, and that it is a color, and that spots are incompatible with each other, and so on, I can not just immediately and securely know a single, simple fact. Such claims would be comprehensible only *en masse*.

Atomism is not limited to empiricist views. For Descartes, for example, our basic beliefs can not presuppose any more substantial beliefs, on pain of circularity. The *cogito* has to be a pure, immediately recognizable intuition. It must have what Sellars calls intrinsic credibility. Otherwise, it can not serve as a foundation for other beliefs.

III. Holism and Atomism

Sellars argues that the color incompatibility problem shows that some assertions taken as atomic and foundational are actually dependent on other claims. To know that this spot is green entails knowledge that green is a color, that this spot is not red, and so on. Similarly, it is customary to criticize Descartes’s *Meditations* by pointing out that the cogito presupposes a logical structure, or to claim that his criterion for knowledge (clear and distinct perception) is applied in a circular manner.

Quine, whose work has deep affinities to Sellars’s work, claims against atomism that there are no individual statements which independent of larger theories.

> Our statements about the external world face the tribunal of sense experience not individually but only as a corporate body (“Two Dogmas of Empiricism” 41).

Holism comes in a variety of forms. Most strong, semantic holism claims that the meaning of any term or sentence depends on the meanings of all of our sentences. Meaning is a property of an entire language, not of individual terms. Less contentiously, confirmation holism claims that individual sentences are confirmed or refuted only
by whole theories, not individually. 
Confirmation holism is a logical fact about sets of sentences. 
Even two contradictory sentences are compatible in the absence of a larger theory which prohibits contradiction.

Sellars argues for holism from the inter-dependence of claims which the atomist takes to be foundational. 
Given what Sellars takes to be natural constraints on knowledge, we could not know any particular fact unless we already knew a broader swath of background facts. 
We could not know that a spot is green unless we already knew that green is a color, that a spot which is green is not red, and so on.

One couldn’t form the concept of being green, and, by parity of reasoning, of the other colors, unless he already had them (120).

If all claims are inter-dependent, there is nothing ultimate about the observation that this is green. 
As Sellars puts the point, no sentences have intrinsic credibility. 
They must derive their credibility from their logical relations with other sentences.

The essential point is that in characterizing an episode or a state as that of knowing, we are not giving an empirical description of that episode or state; we are placing it in the logical space of reasons, of justifying and being able to justify what one says (123).

What appeared to the logical empiricists, and to Descartes, as a foundation is no foundation at all. 
If any particular starting point is infected with broader theoretical presuppositions, then no particular claim can act as a real foundation.

Sellars’s holistic claim might seem a bit too quick. 
For, perhaps the problem is with the particular choice of atomic facts. 
As I mentioned, Wittgenstein never claimed that color reports of sense data were atomic facts. 
Just as I claimed that our worries about Descartes’s project might be due to his particular choices of definitions and postulates, perhaps the logical empiricists were wrong to think of sense data as the ultimate atomic facts.

We should be wary of the fallacy of hasty generalization, just as we are wary of being obstinate foundationalists, refusing to admit the general point evinced by the particular example. 
On the other hand, until we are presented with a specific foundational account, one in which the atomic beliefs or episodes or states wear their justificatory force on their sleeves, the foundationalist project seems liable to holist criticism.

In any case, Sellars does not believe that the problem arises merely from a poor choice of examples of atomic propositions. 
He claims that his conclusion is not merely about colors, and observation reports of them.

It follows, as a matter of simple logic, that one couldn’t have observational knowledge of any fact unless one knew many other things as well (123).

If holism, even in its weak form, is correct, then the presupposition of atomism that some of our beliefs can serve as unassailable foundations for the rest is false. 
Holist criticisms undermine any given-ness of our purportedly basic beliefs.
IV. Epistemic Constraints

One worry about Sellars’s defense of holism is that it relies on a contentious epistemic constraint.

It would seem that one couldn’t form the concept of being green, and, by parity of reasoning, of the other colors, unless he already had them. It just won’t do to reply that to have the concept of green, to know what it is for something to be green, it is sufficient to respond, when one is in point of fact in standard conditions, to green objects with the vocable “This is green.” Not only must the conditions be of a sort that is appropriate for determining the color of an object by looking, the subject must know that conditions of this sort are appropriate (120).

Sellars constraint seems to be what is ordinarily called a KK thesis.

\[
\text{KK} \quad \text{In order to know } p, \text{ you must know that you know } p. 
\]

As he notes, KK is a strong epistemic constraint.

To be the expression of knowledge, a report must not only have authority, this authority must in some sense be recognized by the person whose report it is. And this is a steep hurdle indeed (123).

There are good reasons to question the KK thesis, though. Consider being asked what the capital of Illinois is. Imagine that you think that the answer is Springfield. You believe that you remember learning it in school. You had a puzzle which showed all the state capitals. But you are not sure that you remember correctly. You believe that Springfield is the capital of Illinois, but you are willing to doubt it. In fact, Springfield is the capital of Illinois. Additionally, the reasons you thought so were good ones. This seems to be a case in which you know that p, but you do not know that you know that p.

In response to the holist, the atomist might claim that we can truly assert, “This is green,” without knowing the other facts entailed by that claim. For example, we can imagine a toddler, just learning to use color words. Indeed, it seems that we must learn some colors without knowing others.

As a counter-response, the holist can argue that we don’t ascribe knowledge to the toddler in the same way. We do not really believe that the toddler, just learning to use words, really knows that this is green. At best, the toddler is merely reporting. Knowledge has a more substantial character than mere reporting. That substantial character is evinced by Sellars’s claim that:

\[
\text{Not all ought is ought to do (122).} 
\]

There is, in addition to reporting, a normative aspect to knowledge. Normativity need not apply only to value theory, to actions that one must do, or, more prominently,
refrain from doing.
One ought not believe in ghosts, and astrology.
One ought not to play the lottery (normally).
One ought to believe in the claims of science.
Since knowledge is more substantial than mere observation reports that could be true or false, independently of the speaker, we should expect that there are epistemic constraints on a speaker.

Sellars thus presents two constraints on knowledge: KK and Norm.

\[
\text{Norm} \quad \text{There are epistemic norms.}
\]

Norm seems plausible.
KK seems too strong to me.
And, there does not seem to be a supporting link from Norm to KK.

Still, there are other routes to holism.
As I mentioned, Quine’s holism derives from his concern about the analytic/synthetic distinction.
We don’t have time for lengthy discussion of Quine’s arguments, but they can be found most notably in “Two Dogmas of Empiricism.”
There, Quine argues that to make a distinction between analytic and synthetic claims, which is essential to the atomist logical empiricist, one has to have a good characterization of synonymy, of when two claims have the same meaning.
But, there are no good criteria for sameness of meaning.
All statements depend for their truth both on language and the world, and in inter-related ways.

V. Going Forward

So, how shall we proceed in the absence of foundationalist epistemology?

One seems forced to choose between the picture of an elephant which rests on a tortoise (What supports the tortoise?) and the picture of a great Hegelian serpent of knowledge with its tail in its mouth (Where does it begin?). Neither will do. For empirical knowledge, like its sophisticated extension, science, is rational, not because it has a \textit{foundation} but because it is a self-correcting enterprise which can put \textit{any} claim in jeopardy, though not \textit{all} at once” (124).

Perhaps the epistemologist is working in the wrong direction.
Descartes, Locke, Wittgenstein, and Ayer were all trying to establish necessary and sufficient conditions for knowledge from the bottom-up.
Sellars is suggesting the reverse picture.
Let’s start with a pursuit that we take as paradigmatic of knowledge: empirical science.
Then we can characterize knowledge by abstraction from the paradigm.
So, we will look a bit more closely at the scientific method.