Week 11 Notes:

1. **<u>Introduction</u>**:

Last time I told the story about **bimodal conceptual realism**, which is given definiteness by Ulf's isomorphism at the level of reason relations between Fine's truthmaker semantics and Restall-Ripley bilateral pragmatics.

We have seen that in analyzing and unpacking bimodal conceptual realism as we have done, we are uncovering the basic *rational* structure of intentionality itself.
Reason relations of implication and incompatibility are, according to this story, the key to understanding the relations between language, or mind, and the world.
This is a sophisticated kind of *rationalism* about intentionality.

We have deployed considerable apparatus to help us think about what is *common* to the subjective and objective poles of the intentional nexus, namely reason relations, in something like their own terms.

- Logic (ideal logic, NM-MS being our candidate) makes explicit *reason relations*.
- Implication-space conceptual role semantic MVs are the intrinsic expressive resources to make explicit *conceptual roles*.

Next we focus our attention on two kinds of vocabulary that essentially structure the two ends of the isomorphism—the *difference* between the world described and our describings of it:

- *alethic modal* vocabulary, on the objective side of what we are talking (and thinking) *about*, deployed in a *semantic* metavocabulary, and
- *deontic normative* vocabulary, on the subjective side of what we are *doing* in talking (and thinking), deployed in a *pragmatic* metavocabulary.

Today I want to talk about these vocabularies.
They are, I claim, both *metavocabularies*.
They are generically alike, and specifically different.

We need to think about both those dimensions

But we can also think about these two vocabularies in terms of *reason relations*.

- For alethic modal vocabulary, this is thinking inferentially, about ranges of subjunctive robustness.
  Necessity as persistence, which is monotonicity.
- For deontic vocabulary, it is the role of normative vocabulary in *practical reasoning* that matters, in the sense that that is what makes it *normative* vocabulary.

We have considered two different kinds of semantics:

- the representational semantics whose paradigm for us has been truthmaker semantics, and
- inferential role semantics, whose paradigm for us has been implication-space conceptual role semantics.

And these are not just two *kinds* of semantics.
They correspond to two different *dimensions* of meaning or content:

- The rational-conceptual, which is a matter of role in reasoning (reason relations), and
- The representational-intentional, which is a matter of relations between thought and the world thought and talk is *about*.

The plan is this week to think about alethic and deontic modal vocabularies in relation to *reason relations*, and next time

a) to think of these vocabularies in descriptive, representational terms, and
b) to think of description and representation in their terms.

We are still exploring the relations between these two approaches, but at ever-finer levels of resolution of their relations.

We have actually already said quite a bit about deontic normative vocabulary in discussing pragmatic metavocabularies of this sort.

(I'm thinking here principally of the argument for the expressive advantages of two-sorted, over single-sorted deontic vocabularies: of talk of commitment and entitlement, or responsibility and authority, rather than just of assessments of correct/incorrect, or appropriate/inappropriate.)

So today it makes sense to begin with and focus on alethic modal vocabularies.
Almost no tech stuff today (just a little at the end—but it has pictures).

2. **Traditional and Logical Empiricism**:

Hume found that even his best understanding of actual observable empirical *facts* did not yield an understanding of *rules* relating or otherwise governing them. Those facts did not settle which of the things that *actually* happened *had* to happen (given others), that is, were (at least conditionally) *necessary*, and which of the things that did *not* happen nonetheless were *possible* (not ruled out by laws concerning what did happen). The issue here concerns the justifiability and intelligibility of a certain kind of *inference*: modally robust, counterfactual-supporting inferences, of the kind made explicit by the use of modal vocabulary. Hume (and, following him, Quine) took it that epistemologically and semantically fastidious philosophers face a stark choice: either show how to explain modal vocabulary—the circumstances of application that justify the distinctive counterfactual-supporting inferential consequences of application—in nonmodal terms, or show how to live without it, to do what we need to do in science without making such arcane and occult supradescriptive commitments.

Hume was skeptical about both alethic modal and normative vocabulary in this same way. He didn't see how to go beyond descriptions of what *is* either to what *must be* alethically, or to what *ought* to be, normatively. Kant's notion of *rulishness* (he calls it "*Notwendigkeit*"), as having two species, natural and practical is his response. In both cases, he sees the rulishness as *implicit* in applying concepts in *judgement* and *intentional action*, respectively.

The status and respectability of alethic modality was always a point of contention and divergence between *naturalism* and *empiricism*. This tension was a principal source of conflict within the Vienna Circle, dividing Neurath and Schlick, for instance, with Carnap trying to mediate. It poses no problems in principle for *naturalism*, since modal vocabulary is an integral

part of all the candidate naturalistic base vocabularies. Fundamental physics is above all a language of *laws*; the special sciences distinguish between true and false *counterfactual* claims; and ordinary empirical talk is richly *dispositional*.

By contrast, modality has been a stumbling-block for the *empiricist* tradition ever since Hume forcefully formulated his epistemological and ultimately semantic objections to the concepts of <u>law</u> and <u>necessary connection</u>.
This demand was accordingly always the greatest source of tension between empiricism and naturalism, especially the scientific naturalism that Sellars epitomized in the slogan: "Science is the measure of all things, of those that are, that they are, and of those that are not, that they are not." For modern mathematized natural science shorn of concern with laws, counterfactuals, and dispositions—in short of what is expressed by alethic modal vocabulary—is an inert, unrecognizable, fragmentary remnant of a vital enterprise.

Those traditional reservations about the intelligibility of modal notions were underscored, reinforced, and confirmed for twentieth-century versions of empiricism, which had been distinguished, strengthened, and made more precise by the addition of the semantic logicist model of the conceptual articulation of empirical content. Extensional, first order quantificational languages could express *regularities* and *generalizations* with hitherto undreamed of power and precision. But for philosophers from Russell through Carnap to Quine, that just made it all the more urgent to explain, or explain away, the *lawlikeness* or counterfactual-supporting *necessity* distinctive of at least *some* of those generalizations, which demonstrably extended beyond what can be captured by the expressive resources of that logical vocabulary. We now know, thanks to Danielle Macbeth's *Frege's Logic* [Harvard University Press, 2005], that Frege's own *Begriffsschrift* notation did not share the expressive impoverishment with respect to modality exhibited by the extensional first-order logic that Russell, and following him, everyone else, drew from it.

This confluence of traditional empiricist with logicist difficulties concerning the content expressed by modal vocabulary had the result that for roughly the first two-thirds of the twentieth century, Anglophone philosophy regarded alethic modal vocabulary with extreme suspicion, if not outright hostility. It ranked, with normative vocabulary, as among the most mysterious and philosophically puzzling forms of discourse, the source of central standing and

outstanding philosophical problems, as a prime candidate for the analytic project of semantic clarification in favored terms or, failing that, principled elimination from perspicuous discourse, as Quine famously recommended.

3. **The Kripkean Modal Revolution. But Why?**

But philosophical attitudes towards modality underwent a remarkable, in many ways unprecedentedly radical transformation during the twentieth century. For starting in the second half of the century and accelerating through the last third, modal vocabulary became the analytic semanticist's best friend, and an essential part of the contemporary philosopher's metaconceptual tool-kit.

I think it is worthwhile reminding ourselves just how surprised and astonished philosophers who lived and moved and had their being in the earlier milieu would have been to discover that by the end of their century, when questions were raised about the semantics of some vocabulary—for instance, normative, intentional, or even semantic vocabulary itself—not only the dominant strategy, but the very first recourse would be to appeal to *modal* notions such as dispositions, counterfactual dependencies, and nomological relations to explain the questionable conceptual contents.

Just how—they would want to know—did what seemed most urgently in need of philosophical explanation and defense suddenly become transformed so as to be unproblematically available to explain other puzzling phenomena?

Surely such a major transformation of *explanandum* into *explanans* could not be the result merely of a change of fashion, the onset of amnesia, or the accumulation of fatigue?

(That is just what Rorty thought it was, and his disgust at that permanently alienated him from analytic philosophy.)

But if not, what secret did we find out, what new understanding did we achieve, to *justify* this change of philosophical attitude and practice?

Two answers to this question lie ready to hand. First, there was a formal-semantic revolution in modal logic. And second, the Anglophone tradition more or less gave up empiricism in favor of naturalism. I think both those explanations are right, as far as they go, both as a matter of historical fact and in the order of justification. But it is important to understand exactly *which* questions those developments *did* offer responsive answers to, and to which they did *not*.

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As to the first point, I think there is a widespread tendency to think that, to paraphrase Alexander Pope:

Modality and Nature's laws lay hid in night,

God said: "Let Kripke be!" and all was light.

But that cannot be right. Kripke's provision of a complete extensional semantic metavocabulary for intensional modal logical vocabulary—and its powerful development, by others such as Montague, Scott, Kaplan, Lewis, and Stalnaker, into a general intensional semantics for non-logical vocabulary—*is* an adequate response to worries stemming from the *extensional* character of the *logical vocabulary* in which semantics had been conducted. That is, it addresses the difficulties on the *semantic logicist* side of the classical project of analysis that stem from the expressive impoverishment of first-order logical vocabulary. But these formal developments do *not* provide an adequate response to residual *empiricist* worries about the intelligibility of modal concepts. For the extensionality of the semantic metalanguage for modality is bought at the price of making free use of modal primitives: most centrally, the notion of a *possible* world (as well as that of accessibility relations among such *possibilia*).

As Quine emphasized, the modal vocabulary whose use is essential to this semantic approach evidently falls within the circle of terms and concepts to which empiricist suspicions and questions apply. That is, even putting *ontological* issues aside, whether possible worlds are thought of as abstract objects, as concrete particulars spatio-temporally unconnected to our universe, or as *sui generis* possibilia, the *epistemological* question of how we are to understand the possibility of our *knowing* anything about such items (and their accessibility relations), and the question how, if the possibility of such *cognitive* contact is mysterious, the idea of our having the *semantic* contact necessary so much as to *talk* or *think* about them can be made intelligible, are wholly untouched by this formal apparatus, and remain every bit as pressing as before.

Lewis ("Languages and Language") appreciated severe *epistemological* challenges of doing *semantics* in terms of possible worlds. Whether they are construed as causally insulated from us (Lewis), or as abstract objects (Stalnaker), the issue of how we know about them (epistemology), and, in philosophical semantics, what it is about our *use* of expressions that establishes structures of them as semantic interpretants of those expressions, is urgent and challenging.

(I mentioned a version of this in connection with truthmaker semantics: How is the interpretation function determined? How is the distinction between possible and impossible states to be understood?)

4. **Sellars's Diagnosis: Contra Descriptivism.**
Description, Implication, Explanation, and Modal Vocabulary

Sellars diagnoses a large-scale philosophical mistake as being behind worries (such as Hume's) about *both* modal *and* normative concepts. It is what he calls "descriptivism."

It is the "tendency to assimilate all discourse to describing," which he takes to be primarily "responsible for the prevalence in the empiricist tradition of 'nothing-but-ism' in its various forms (emotivism, philosophical behaviorism, phenomenalism)." [CDCM §103]

The idea Sellars addresses is the Humean one that can find in statements of laws of nature, expressed in alethic modal vocabulary that lets us say what is and is not necessary and possible, "nothing but" expressions of matter-of-factual regularities or constant conjunctions (though he claims explicitly that considerations corresponding to those he raises for causal modalities are intended to apply to deontological modalities as well).

His arguments are directed against the view that holds modal vocabulary semantically unintelligible, on grounds of inability to specify what it is saying about *what the world is like*, how it is *describing* things as being, insofar as by using it we are asserting something that goes beyond endorsing the existence of non-modally characterizable universal descriptive generalizations.

He sees that the Humean-Quinean empiricist semantic challenge to the legitimacy of modal vocabulary is predicated on the idea of an independently and antecedently intelligible stratum of empirical discourse that is purely descriptive and involves no modal commitments, as a semantically autonomous background and model with which the credentials of modal discourse can then be invidiously compared.

> The idea that the world can, in principle, be so described that the description
> contains no modal expression is of a piece with the idea that the world can, in
> principle, be so described that the description contains no prescriptive expression.
> For what is being called to mind is the ideal of statement of 'everything that is the
> case' which, however, serves *through and through only* the purpose of stating

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what is the case. And it is a logical truth that such a description, however many

modal expressions might properly be used in *arriving at* it or in *justifying* it, or in

showing the *relevance* of one of its components to another, could contain no

modal expression. [CDCM § 80]

On Sellars view describing *is* something we do.

Describing is a central and essential feature of language.

It *does* make sense to talk about purely descriptive vocabulary, and so it makes sense to talk

about what we can *say* (or think) using *only* descriptive vocabulary.

But that does *not* mean that it is coherent to envisage creatures who can *only* use and understand

descriptive vocabulary—can use vocabulary *only* to describe.

The capacity to describe is part of a battery of abilities that come as a package.

As a result, the predicament Hume and Quine believe themselves to be in is not in fact real, or

even in the end *intelligible*.

For they think they can fully and completely understand ordinary empirical descriptive (OED)

vocabulary, but thereby have no resources sufficient to enable them to understand alethic modal

discourse, about which of the descriptions they can apply *necessarily* entail the applicability of

others, and the *im*possibility of still other descriptions being applicable.

But envisaging such a situation requires ignoring a fundamental *semantic* fact:

First Sellarsian Claim:

> It is only because the expressions in terms of which we describe objects, even
>
> such basic expressions as words for perceptible characteristics of molar objects,
>
> locate these objects in a space of implications, that they describe at all, rather than
>
> merely label. [CDCM §108]

That is, it overlooks the crucial significance of *reason relations* of implication and

incompatibility in articulating the *conceptual content* of purely descriptive vocabulary.

This is perhaps by now a familiar claim for us, but it is important, and I want to dwell on it a bit.

Sellars is here distinguishing *describing* from "*merely labeling*." What is that distinction?

Labels express *classifications*.

Things are grouped together by being given the same label or kind of label.

Classification as labeling is not a good candidate for *conceptual* classification, in the basic sense in which applying a concept to something is *describing* it. Why not? Suppose one were given a wand, and told that the light on the handle would go on if and only if what the wand was pointed at had the property of being *grivey*. One might then determine empirically that speakers are grivey, but microphones not, doorknobs are but windowshades are not, cats are and dogs are not, and so on. One is then in a position reliably, perhaps even infallibly, to apply the *label* 'grivey'. Is one also in a position to *describe* things *as* grivey? Ought what one is doing to qualify as applying the *concept* grivey to things? Intuitively, the trouble is that one does not know what one has found out when one has found out that something is grivey, does not know what one is taking it to be when one takes it to be grivey, does not know what one is describing it *as*. The label is, we want to say, uninformative.

The reason 'grivey' is merely a *label*, that it classifies without informing, is that nothing *follows* from so classifying an object. If I discover that all the boxes in the attic I am charged with cleaning out have been labeled with red, yellow, or green stickers, all I learn is that those labeled with the same color share *some* property. To learn what they *mean* is to learn, for instance, that the owner put a red label on boxes to be discarded, green on those to be retained, and yellow on those that needed further sorting and decision. Once I know what *follows* from affixing one rather than another label, I can understand them not as *mere* labels, but as *descriptions* of the boxes to which they are applied. Description is classification with *consequences*, either immediately practical ("to be discarded/examined/kept") or for further classifications.
As Sellars put the point, the difference between mere *labels* and genuine *descriptions* is that descriptive expressions are "situated in a space of implications"—and, he might have and should have added "incompatibilities." In the terms I have been using, descriptive vocabulary is a *vocabulary*: a lexicon with reason relations defined on that lexicon.

Another Sellarsian slogan is that "Grasp of a concept is always mastery of the use of a word."

Here he is pointing out that mastery of descriptive concepts involves not only being able to apply them by responding differentially to some stimuli by affixing a *label*, but also being able practically to navigate in a space of implications and incompatibilities relating the descriptive concept one is applying to other descriptive concepts.

We have seen that being able to do that is sufficient to be able to use a particular further kind of concept, beyond the descriptive, namely *logical* concepts. For all one needs to be able to do to use logical vocabulary such as conditionals and negation in a vocabulary extended by the addition of logical locutions is to have mastered the relations of implication and incompatibility that lexical items stand in to one another in the base vocabulary—which might as well be OED (ordinary empirical descriptive) vocabulary.

Sellars adds to his insight about the importance of reason relations to descriptive capacities two further important points.

The first is that we should understand the connection between the discursive activity of *description* and reason relations of implication as connecting description to the activity of *explanation*.

<u>Second Sellarsian Claim</u>:

> Although describing and explaining (predicting, retrodicting, understanding) are *distinguishable*, they are also, in an important sense, *inseparable*. …The descriptive and explanatory resources of language advance hand in hand. [CDCM §108]

The idea is that practical mastery of the relations of implication and incompatibility in which descriptions stand to one another is manifested in offering one description as a *reason for* or *reason against* applying another. To do that is to *explain* the applicability or inapplicability of one description (one's acceptance or rejection of it) by offering the applicability or inapplicability of another as a *reason* to accept or reject it.

In the lightly regimented (meta)vocabulary I have been suggesting, Sellars's "explanation" is a species of the genus of "inferring": practically accepting or rejecting what one's prior commitments *implicitly* commit one to accept or reject.

The underlying idea clearly is just the idea at the center of our construal of social practices being demarcated as *discursive* practices just insofar as they treat some performances as having the pragmatic significance of *claimings*, which includes their liability to rational *challenges* in the form of further claimings serving as reasons *against* them and their susceptibility to rational *defenses* in the form of further claimings serving as reasons *for* them.

Sellars's claim that practices of *description* are inseparable from practices of *explanation* importantly points beyond the implications of this picture that we have explicitly acknowledged, however.

For the idea that descriptions as such must be able both to serve as and to stand in need of *explanations* emphasizes that the relations of implication and incompatibility that articulate the conceptual contents of descriptive concepts are essentially *subjunctively robust*.

They support inferences not only about what *is* so, but about what *would be* so *if* something else *were* so.

This is *suppositional* reasoning, which inferentially extracts consequences from claimables one does *not* accept—consequences which one is accordingly *not* implicitly committed to accept or reject.

Grasp of the conceptual contents expressed by ordinary empirical descriptive vocabulary, Sellars claims, must be understood to include mastery of the "space of implications" (and incompatibilities) in which they stand to one another.

That grasp is manifested by engaging in subjunctive (including counterfactual) suppositional reasoning.

That is why *explaining* and *understanding* are co-ordinate concepts.

This line of thought brings us to the

Third Sellarsian Claim:
The expressive job characteristic of *alethic modal* vocabulary is to make explicit the *subjunctive robustness* of the reason relations of ordinary empirical descriptive vocabulary, which consists in their supporting *suppositional* inferences (the drawing or extraction of implicit consequences) as well as inferences from claimables actually accepted.

The pragmatist claim about what else one must be able to *do*—namely, *infer*, *explain*, treat one claim as a *reason* for another—in order for what one is doing to count as *describing* connects to the use of *modal* vocabulary via the principle that:

> To make first hand use of these [modal] expressions is to be about the business of explaining a state of affairs, or justifying an assertion. [CDCM §80]

That is, what one is *doing* in *using* modal expressions is explaining, justifying, or endorsing an inference.

He sees modal locutions as tools used in the enterprise of

> …making explicit the rules we have adopted for thought and action…I shall be interpreting our judgments to the effect that A causally necessitates B as the expression of a rule governing our use of the terms 'A' and 'B'.
>
> ["Language, Rules, and Behavior" footnote 2 to p. 136/296 in *PPPW*.]

So what one is doing in saying that As are *necessarily* Bs is endorsing the inference from anything's being an A to its being a B.

In fact, following Ryle, he takes modal expressions to function as *inference licenses*, expressing our commitment to the goodness of subjunctively and counterfactually robust inferences from necessitating to necessitated conditions.

What we are most interested in going forward is how to follow up on Sellars's insights into the connection between description, explanation, understanding, suppositional reasoning, and the subjunctive robustness of reason relations in order to specify more precisely the expressive role alethic modal vocabulary should be understood as playing.

5. **<u>Kantian Categorial Metaconcepts</u>**:

A good place to begin is with the anti-descriptivist methodological conclusion Sellars draws from the foregoing considerations:

> [O]nce the tautology 'The world is described by descriptive concepts' is freed
> from the idea that the business of all non-logical concepts is to describe, the way
> is clear to an *ungrudging* recognition that many expressions which empiricists
> have relegated to second-class citizenship in discourse are not *inferior*, just
> *different*. [CDCM §79]

As indicated in the first of the passages I quoted from Sellars earlier, the principal kinds of locutions whose defining expressive roles are not descriptive that he has in mind here are just the ones we are concerned with: alethic modal vocabulary and normative (he says "prescriptive") vocabulary.

Sellars's ideas here are rooted in one of his hero Kant's most fundamental insights. For Kant saw that **in addition to concepts whose characteristic expressive job it is to describe and explain empirical goings-on, there are concepts whose characteristic expressive job it is to make explicit necessary structural features of the discursive framework required for description and explanation to be possible**. He called concepts that play this framework-explicating expressive role, by contrast to the role of ordinary empirical descriptive concepts, "pure concepts of the understanding," or categories. The expressive role of pure categorial concepts is, roughly, to make explicit what is implicit in the use of ground-level concepts: the conditions under which alone it is possible to apply them, which is to say, use them to make judgments. These Kantian categorial concepts are the ones Sellars is referring to when he says that concepts playing this sort of expressive role are not *inferior* to ordinary empirical concepts playing descriptive expressive roles, just *different*.

Kant's thought here starts with the epistemological difference Hume notices and elaborates between ordinary empirical descriptive concepts and concepts expressing lawful causal-explanatory connections between them.

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Hume, of course, drew skeptical conclusions from the observation that claims formulated in terms of the latter sort of concept could not be justified by the same sort of means used to justify claims formulated in terms of empirical descriptive concepts.

Kant, though, looks at Newton's formulation of the best empirical understanding of his day and sees that the newly introduced concepts of <u>force</u> and <u>mass</u> are not intelligible apart from the *laws* that relate them.

If we give up the claim that F = m*a then we do not mean <u>force</u> and <u>mass</u>, but are using quite different concepts.

- This leads Kant to the insight that we saw operative in Sellars's distinction between describing and merely labeling: that the contents of concepts are articulated by *rules of reasoning* with them.

- It leads him to see further that the implications presupposed by the conceptual contents of OED vocabulary must support the kind of subjunctively robust suppositional reasoning that is licensed by laws of nature such as "F = m*a."

- Finally, it leads Kant to think of statements of laws formulated using alethic modal concepts as *making explicit rules for reasoning* with ordinary empirical descriptive concepts.

In effect, Kant thinks of what is expressed by alethic modal vocabulary as metaconcepts that make explicit essential features of the reason relations that articulate the conceptual contents expressed by ground-level empirical descriptive vocabulary.

Failing to acknowledge and appreciate this crucial difference between the expressive roles different bits of vocabulary play is a perennial source of distinctively philosophical misunderstanding. In particular, Sellars thinks, attempting to understand concepts doing the second, framework-explicating sort of work on the model of those whose proper use is in empirical description and explanation is a fount of metaphysical and semantic confusion.

6. **The Modal Kant-Sellars Thesis**:

Articulating and justifying his version of the Kant-Sellars thesis about modality is Sellars's constructive response to the empiricist tradition's "nothing-but-ism" about modality: its demand that what is expressed by modal claims either be shown to be expressible in non-modal terms, or be dispensed with entirely by semantically fastidious philosophers and scientists.

What I call the "*Kant-Sellars Thesis about Alethic Modality*" comprises three sub-theses that I claim are common to both thinkers. (Of course, this is not simply a coincidence. Sellars learned these lessons from Kant. He once said that he hoped the effect of his work would be to "move analytic philosophy from its Humean phase to its Kantian phase.")
The three constituent claims unpack the thought that using apparently empirical descriptive vocabulary, which is not *explicitly* modal vocabulary, *implicitly* involves commitments that are made explicit by modal vocabulary.
are:

i)   **Semantic** Thesis: Descriptive conceptual contents must stand in *modally robust* reason relations to each other. That is, the reason relations of implication and incompatibility that govern empirical descriptive vocabulary must support *suppositional reasoning* in the form of *subjunctive* inferences.

ii)   **Expressive** Thesis: The expressive function that demarcates alethic modal vocabulary is to *make explicit this aspect of the reason relations* articulating the conceptual contents of OED vocabulary: that they support subjunctive, suppositional inferences.

iii)   **Epistemological** Thesis: In knowing how to use ordinary empirical descriptive vocabulary, one already knows how to do everything one *needs* to know how to do in order to use alethic modal vocabulary. The reason relations that govern modal vocabulary are determined by the reason relations that govern empirical descriptive base vocabularies, and *so* the ability to use alethic modal vocabulary can be *practically algorithmically elaborated* from the ability to use *any* OED base vocabulary.

Let us consider them in turn.

Semantic Kant-Sellars Thesis:

I have already motivated the **semantic** claim, but let me offer a bit of further argument and then point to some of its consequences.

Meaning and understanding are co-ordinate concepts. Understanding an empirical descriptive concept such as lion or copper involves mastering reason relations of implication and incompatibility that support suppositional inferences expressed explicitly by subjunctive conditionals. One needs to endorse such inferences as that *if* the hungry lioness in the veldt *were* to see a nearby limping antelope, she *would* chase and attack it, and that she *would* still do so if today were Thursday rather than Wednesday or I received a text on my phone in Pittsburgh, but not if she *were* struck by lightning or shot dead by a hunter.

The strongest version of the claim is that *every* empirical descriptive concept has subjunctive or counterfactual consequences that are necessary conditions of its applicability. Something does not count as being copper unless it *would* melt if it *were* heated beyond 1084° C., *would* conduct electricity if a current *were* applied to it, nor as being water unless it *would* dissociate into hydrogen and oxygen if it *were* subjected to a strong electric current. It is not just that there *are* dispositional properties. It is that even empirical properties that are not explicitly dispositional *essentially*, as part of what they are, imply broadly dispositional properties, at least relational ones: properties concerning how they *would* behave *if* their relations to other things changed.

Quine was driven to a thorough-going and relentless hostility to modalities in all their forms—principally alethic, but also deontic normative modalities—by the combination of Humean epistemological concerns about their intelligibility and the fact that the addition of the expressive resources of modern extensional logic, which distinguished the *logical* empiricism of Vienna Circle from classical Early Modern British empiricism was not sufficient to make modal discourse tractable. He went so far as to propose that dispositional properties could be reduced without remainder to what he called "structural" properties. His idea was that the *solubility* of salt, for instance, might be explained by features of its crystalline microstructure. If one tries to work out this idea, I think one will quickly realize that such accounts can only work by

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smuggling in dispositional properties at the microstructural level—for instance concerning how the faces, edges, and vertices of a cubical structures would slide over or impede one another *if* subjected to various kinds of motive force.

Accepting what I am calling the *semantic* component of the *modal Kant-Sellars thesis*— Kant's realization that explanation-supporting lawfulness is implicit in all description, what Sellars expresses in the title's of one of his essays "Concepts as Involving Laws, and Inconceivable without Them"—has more radical consequences than are immediately apparent. In particular, it precludes one of the principal rationales for moving beyond Quine's crabbed reactionary rejection of modality into the Kripkean heaven of possible worlds semantics. It seemed important that the metavocabulary in which possible worlds semantics is formulated, and in terms of which the conceptual contents of *intensional* concepts, paradigmatically alethic modal ones can be codified, is itself purely *extensional*.
There is an important sense in which that is true, and it can be cashed out in terms of the substitutional behavior of singular terms, where extensional contexts permit intersubstitution of coreferential expressions *salva veritate*.
But Quine's influential metaconcept of <u>extensionality</u> mistakenly assumed that vocabularies that are extensional in this substitutional sense defined a pragmatically and semantically *autonomous* stratum of discourse.

The semantic Kant-Sellars thesis about modality says that is a mistake: a step too far.
In the hands of Quine's students Kripke, Lewis, and Kaplan it gave rise to a *two-stage* picture of possible worlds semantics.

According to this picture, at the *first stage*, possible worlds are specified in purely extensional, non-modal terms—that is, in terms whose applicability depends *only* on how things are in *that* world. We can say that there are copper cubes, salt-water oceans, sub-atomic particles, and the like. Then, at the second stage, we add into our specifications *modal* properties, in the sense of properties whose possession depends not just on how things are in the world where something possesses that property, but also on how things are at *other* possible worlds. These are claims about which things that *are* true are *necessarily* true (understood as

true in *all* accessible worlds) and claims about which things that are *not* true are *possible* (understood as true in *some* accessible worlds).

At the first stage, in each world, and looking only at that world, we can specify Humean *regularities* in purely extensional terms: all As are Bs, all samples of copper conduct electricity.

At the *second stage*, by looking at what is true at *other* worlds, accessible from the one whose properties we are specifying, we can say that all As are *necessarily* Bs, that it is a *law* that copper conducts electricity, if and insofar as those regularities hold not only at the index world, but also at all the other worlds in its neighborhood.

The notions of *necessity* and *possibility* that Quine found so mysterious are demystified by being explained in purely extensional vocabulary that allows us to quantify over possible worlds, at the second stage, in the same extensional sense as we quantified over things within each world at the first stage.

So, the account we are considering goes, Quine's worries about the intelligibility of nonextensional vocabulary are solved by his own standards of intelligibility-as-extensionality (even if he was too stubborn to see things that way).

Philosophers were accordingly rationally justified in helping themselves to modal concepts (and intensional concepts generally) in explaining whatever vocabularies they found problematic: talk about propositional attitudes, knowledge, evidence, probability, preference, and so on.

Some two-stage story of this shape was central to the ideology of the modal revolution of a half-century ago.

And I am claiming that it is based on a mistake, a fantasy: the idea that one could specify each possible world in terms that are *modally insulated*, in that their applicability, the possession of the properties they attribute, does not depend at all on how things are in any other possible world, *only* on how things are in the world in which they are attributed.

There are no modally insulated properties specifiable in the vocabularies of the natural sciences, or in empirical descriptive vocabularies generally.

Any sentence in such vocabularies that is not *logically* true or false has essential presuppositions and consequences concerning what *would* happen *if* things were different than they actually are at the world being considered.

Acknowledging that in this sense there is no "nonmodal" vocabulary does not, of course, mean that we cannot legitimately or usefully appeal to the metaconceptual apparatus of possible worlds to explicate the crucial dimension of *subjunctive robustness* of the reason relations that articulate *every* empirical vocabulary.

We just must not think of what we are doing as building up concepts whose content *is* articulated by reason relations essentially exhibiting substantial ranges of subjunctive robustness from concepts whose content does *not* essentially involve such reason relations.

Expressive **Kant-Sellars Thesis**:

The expressive dimension of the Kant-Sellars thesis about modality is that the expressive job distinctive of alethic modal vocabulary is to make *explicit* the dimension of subjunctive robustness that, according to the *semantic* sub-thesis, is *implicit* in the use of *any* empirical vocabulary. The semantic thesis does not elide, expunge, or obliterate the distinction, for instance, between dispositional and nondispositional vocabulary. It just requires us to reconceptualize it as the distinction between *explicitly* modal or intensional vocabulary and vocabulary in which that dimension remains *implicit*.

On this account, the primary and principal form of alethic modal vocabulary in English is the subjunctive mood used to express *suppositional* reasoning.

That is reasoning where one is not committed to accept the premises, but is merely exploring what one *would* be entitled or precluded from being entitled to accept or reject *if* one *were* to accept those premises.

The canonical vocabulary of modal logic, "necessity" and "possibility" (or "impossibility") can be used to make explicit this essential dimension of reason relations: that endorsing an implication or an incompatibility is never an isolated, atomic matter that involves only those particular premises and conclusions. It always has what Ryle called "an element of generality," that consists in its being endorsed as an instance of a *pattern* of implications or incompatibilities one endorses." (One of his examples is: "If today is Wednesday, tomorrow will be Thursday.") Modal vocabulary makes explicit that dimension of generalization.

What makes the modal *logical* metavocabulary of necessity and possibility relatively crude tools for expressing the ranges of subjunctive robustness implicitly involved in practically endorsing any implication or incompatibility relation is that they build in structural assumptions about those ranges of subjunctive robustness that are in general unwarranted.

Necessary consequences are indefeasible, holding *whatever* further collateral premises or auxiliary hypotheses one adds to the premises of the original supposition.
That closure-structural requirement of monotonicity of consequence or incompatibility is in general much too strong.
Maybe "laws of nature" should be thought of this way. But if so, we cannot understand subjunctive robustness in general in terms of laws of nature.

Possible consequences are those such that there is *some* set of further collateral premises or auxiliary hypotheses one can add, or perhaps some way of choosing a *sub*set of the original suppositions, that is not incompatible with the conclusion.
That is in general much too weak a requirement to be interesting or useful in characterizing a determinate range of subjunctive robustness—though it can serve as a chisel helping to chip away the unwanted marble in endeavoring to delineate the statue discerned beneath.

The biggest event in Wilfrid Sellars's philosophical development was his conversion to what he called "the new way of words," around 1947, when he was 35 years old.

Though he never puts it this way, as I reconstruct the development of his thought, the trigger of this sea-shift in his thought came in the form of the realization that Carnap's diagnosis of various philosophical problems, in particular, the problem of universals, as resulting from *semantic* confusions, in particular failure to recognize the "quasi-syntactic," covertly *metalinguistic* character of some apparently ground-level claims, such as "Triangularity is a property," (which he understood as meaning " '…is triangular' is a one-place predicate") was actually the translation of Kant's idea of categories into metalinguistic terms.

As applied to alethic modality, Sellars's constructive view is that what one is *doing* in *using* modal expressions is explaining, justifying, or endorsing an inference. So what one is doing in saying that As are *necessarily* Bs is endorsing the inference from anything's being an A to its being a B.

In working out a view of explicitly modal statements as covertly metalinguistic, Sellars struggled with the obvious objections that in saying "All copper necessarily conducts electricity" I am not saying anything about the *words* 'copper' and 'electricity', am saying something I could equally well say in German, and am saying something that could and would be true even if there had never been anyone around to talk about it.

The obvious conclusion seems to be that one in making a modal claim is *not directly saying* anything about the range of subjunctive robustness of an implication (or incompatibility) specified in a way that depends on the *lexicon* of the vocabulary involved.

> It is sometimes thought that modal statements do not describe states of affairs in the world, because they are *really* metalinguistic. This won't do at all if it is meant that instead of describing states of affairs in the world, they describe linguistic habits. It is more plausible if it is meant that statements involving modal terms have the force of *prescriptive* statements about the use of certain expressions in the object language. Yet there is more than one way of to '*have the force of*' a statement, and failure to distinguish between them may snowball into a serious confusion as wider implications are drawn. (CDCM § 81)

> and

> Shall we say that modal expressions are metalinguistic? Neither a simple 'yes' nor a simple 'no' will do. As a matter of fact, once the above considerations are given their proper weight, it is possible to acknowledge that the idea that they are metalinguistic in character oversimplifies a fundamental insight. For our present purposes, it is sufficient to say that the claim that modal expressions are 'in the metalanguage' is not too misleading if the peculiar force of the expressions which occur alongside them (represented by the 'p' and the 'q' of our example) is recognized, in particular, that they have 'straightforward' translation into other languages, and if it is also recognized that they belong not only 'in the metalanguage', but in discourse about *thoughts* and *concepts* as well. (CDCM§ 82)

> and

We must here, as elsewhere, draw a distinction between what we are committed to concerning the world by virtue of the fact that we have reason to make a certain assertion, and the force, in a narrower sense, of the assertion itself. (CDCM §101)

I think Sellars's analysis should be understood as conducted in a *pragmatic* metavocabulary, not a *semantic* one.

He is saying what one is *doing* in endorsing the claim that copper necessarily conducts electricity.

What one is endorsing a pattern of inference—in this case, as indefeasible, as holding persistently, that is, monotonically. One is *not saying that* it is a good pattern of inference. Sellars has an insight concerning the *use* of modal vocabulary, not directly its *meaning*.

The insight that the expressive Kant-Sellars thesis should be understood to be a claim in a *pragmatic* metavocabulary, a claim about the *use* of modal vocabulary—specifically that its distinctive expressive role is to endorse reason relations supporting patterns of suppositional reasoning, is the key to understanding the *epistemological* dimension of the Kant-Sellars thesis, to which I now turn.

Epistemological **Kant-Sellars Thesis**:

That is the claim that:

In knowing how to use ordinary empirical descriptive vocabulary, one already knows how to do everything one needs to know how to do in order to use alethic modal vocabulary.

The reason relations that govern modal vocabulary are determined by the reason relations that govern empirical descriptive *base* vocabularies, and *so* the ability to use alethic modal vocabulary can be *practically algorithmically elaborated* from the ability to use *any* OED base vocabulary.

Sellars's argument, we have seen is twofold:

First, empirical descriptive vocabulary must be "situated in a space of implications."

That is, as I have unpacked that claim, it must be governed by reason relations of implication and incompatibility articulating what applications of such vocabulary serve as reasons for and against what other applications of such vocabulary.

Second, reason relations essentially, and not just accidentally, involve regions of subjunctive robustness. There is a distinction between additions and subtractions of premises that do, and those that do not, infirm the implication or incompatibility.

Understanding the conceptual role of descriptive vocabulary requires distinguishing in practice which changes in collateral commitments can be made *salva consequentiae*—that is, without changing what follows from those commitments.

So in order to use OED vocabulary, one must already be *able*, in practice, to distinguish ranges of subjunctive robustness of the reason relations that govern its use.

As conditionals make explicit endorsement or acknowledgment of particular implications, and negation endorsement of particular incompatibilities, so the expressive job of modal vocabulary is to make explicit those ranges of subjunctive robustness.

The principle means of doing so is *subjunctive conditionals*, which express commitments to the goodness of specific bits of *suppositional* reasoning, involving premises one need not actually be committed to.

So one just needs to harness one's *implicit* practical ability to distinguish good from bad implications concerning premises one does not accept into corresponding *explicit*—that is, claimable—subjunctive conditionals that codify those dispositions.

On the practical side, an important idea here is that a set of basic abilities can be *algorithmically elaborated* into a more complex ability, by being deployed according to a common set of *elaborating* abilities.

A paradigm is the way in the algorithm third-graders learn for long division, their basic abilities to multiply and substract are elaborated into the ability to divide. One just needs to learn to do them in the right order, and to do different multiplications and subtractions depending on the results of prior ones.

In the case of computer algorithms, central among these *rule-following abilities* are the abilities to deploy basic abilities is a predetermined sequence (so to follow a straight-schedule algorithm),

and to shift to a different sequence depending on the outcome of some test performed on the output of one's previous performance (so to follow a conditional branched-schedule algorithm). The latter gives one the ability to engage in Test-Operate-Test-Exit (TOTE) cycles.

The rule-following abilities required for algorithmic elaboration of primitive abilities are so basic that they can be mechanically implemented. That is how we got calculators and computers. (I discuss these concepts in greater detail in Chapters Three and Four of *Between Saying and Doing*.)

Because the basic abilities in this case are those required to use *any* vocabulary (lexicon governed by reason relations), there is not *particular* concept or vocabulary one must be able to use in order to be in a position to use modal vocabulary. That is the metalinguistic version of Kant's claim that the *pure* concepts of the Understanding, the framework-explicating *categories*, are available *a priori*. It is not that one could use those concepts in advance of having any conceptually structured experience at all, but rather that no matter what the content of such experience, being able to apply OED concepts suffices (algorithmically) to be able to deploy categorial concepts such as alethic modal ones.

Conclusion:

So the claim is that alethic modal vocabulary is *elaborated from* OED base vocabularies and *explicative of* a distinctive aspect of their reason relations: their subjunctive robustness. This is the fact that each implication or incompatibility is located in a *region* or n*eighborhood* of variants (defined by a *kind* of accessibility relation—though not of the sort Kripke envisages) that also hold, surrounded by regions of candidate implications/incompatibilities that do *not* hold. This, of course, is what implication-space semantic metavocabulary for conceptual roles captures in a *different* vocabulary, using *v*-functions.
Alethic modal vocabulary does so in a *conservative extension* of the *base* OED vocabulary.
All this means that in our terms, alethic modal vocabulary is a kind of *logical* vocabulary.
Of course, on this view, there is a *lot* more to it than just modal *logic*.
In the form of subjunctive conditionals codifying suppositional reasoning, it is a medium for making explicit ranges of subjunctive robustness.

It is not, however *universally* LX.

Some vocabularies, paradigmatically mathematical vocabulary, consists entirely of *necessary* claims. Introducing modal vocabulary would be entirely redundant.

But it *is* universal for *empirical descriptive* base vocabularies.

Further, we saw that Sellars is in effect recommending that we understand the alethic modal vocabulary as standing in a *pragmatically mediated semantic relation* to its base vocabulary.

The formal meta-metavocabulary I develop in *Between Saying and Doing* for specifying such relations is *meaning-use diagrams*.

The principal use of these is to analyze *pragmatically mediated semantic relations* among vocabularies.

The most basic example of this kind of metavocabulary is *pragmatic metavocabularies*.

These are vocabularies used to *say* what it is one has to *do*—the *practices* one must engage in, or the *abilities* one must exercise—in order thereby to count as *using* some *base* vocabulary—as governed by the reason relations of that base vocabulary.
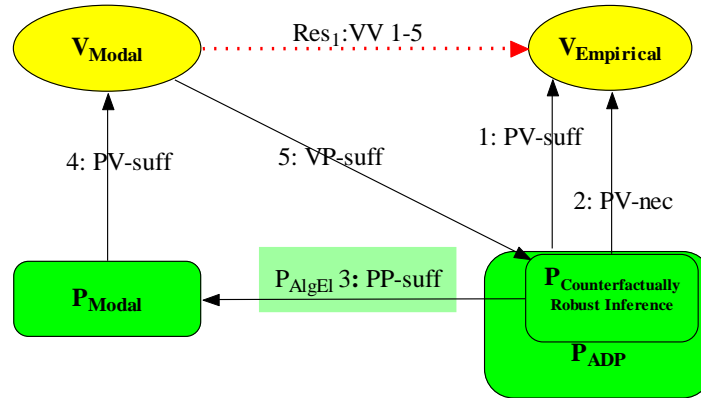

Meaning-Use Diagram #1:
Pragmatic
Metavocabulary
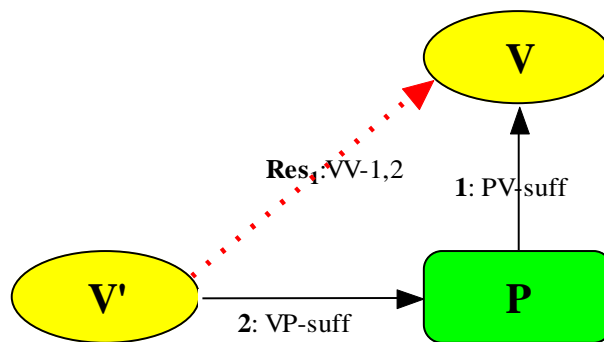
Punchline:

I am building up to is that we should understand alethic modal vocabulary as related to OED vocabularies by this MUD:

The Kant-Sellars Thesis:
Modal Vocabulary is
Elaborated-Explicating (LX)

V_{Modal} Res_1:VV 1-5 $V_{Empirical}$

4: PV-suff   5: VP-suff   1: PV-suff

2: PV-nec

P_{Modal} P_{AlgEl} **3: PP-suff** $P_{Counterfactually\ Robust\ Inference}$

P_{ADP}

Quine (seriously) argued that modal logic (like second-order logic) is not logic, because there is (was) no semantic completeness result for it. Kripke demolished that argument.
But the argument I am presenting is *much* more fine-grained and well-motivated than that.

[Explain what each of the elements of this diagram means.]