

Week 12 Notes:

Representation and Description in Alethic and Deontic Modal Metavocabularies

Review:

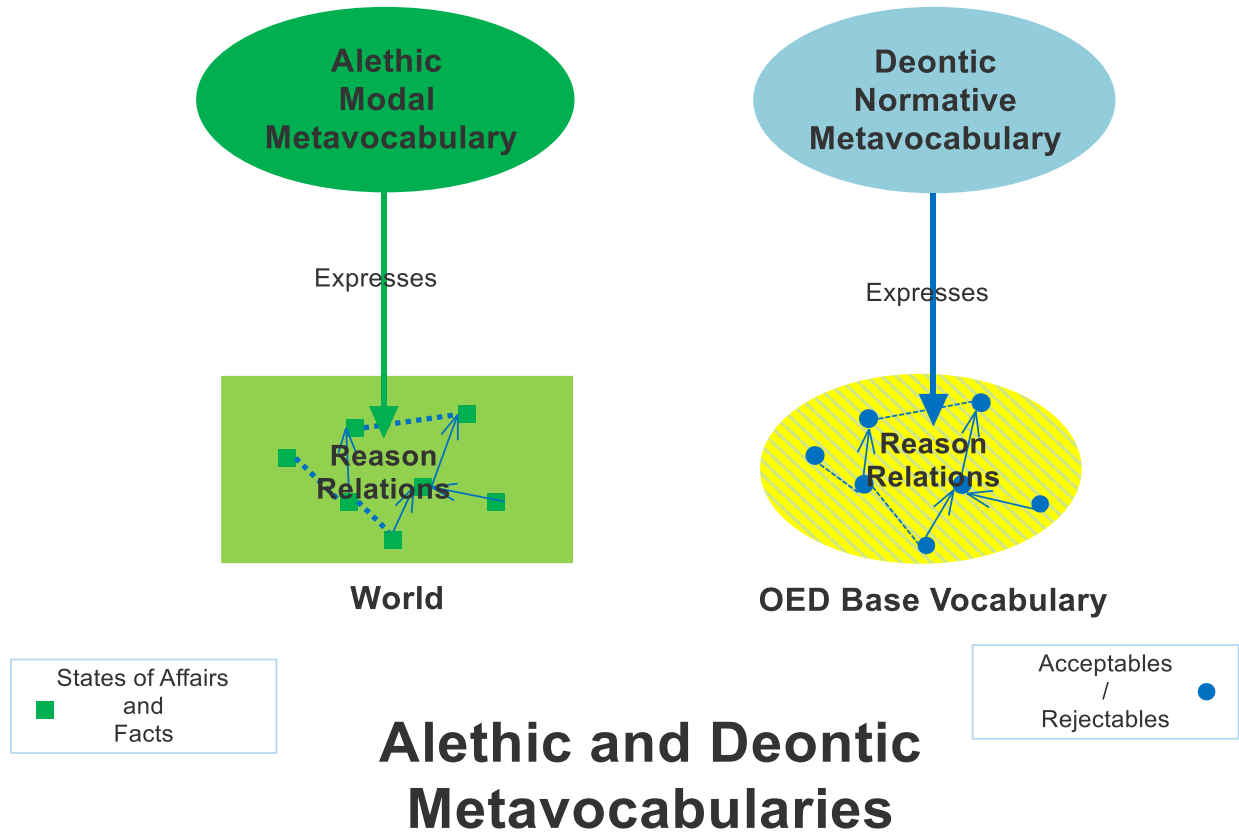
Ulf showed a deep isomorphism between reason relations (paradigmatically, consequence) expressed in deontic normative and alethic modal vocabularies. (These are two sorts of modal discourse.)

- Γ implies Δ on bilateral RR approach iff one cannot be entitled to commitments to assert (accept) everything in Γ and deny (reject) everything in Δ .
- Γ implies Δ on the truthmaker approach (given Ulf's definition of consequence) iff every fusion of truthmakers of all of Γ with falsemakers of all of Δ is an impossible state.

According to **bimodal conceptual realism**, that is the commonality of conceptual structure that underlies sapient (conceptual) intentionality.

Now we are interested in exploring the two forms conceptual contents can take, the two guises in which they can show up, by looking at the relations between what can be expressed in alethic modal MVs and what can be expressed in deontic normative MVs.

One reason to be particularly interested in the relations between these two kinds of modal vocabulary is that **they articulate the represented (alethic modal) and representing (deontic normative) poles of representation relations**, such as those between *mind* and *world*.



[First diagram.]

Our focus in most of the course has been on conceptual contents as articulated by reason relations.

But *conceptual* contents also have a *representational* dimension.

We have now put ourselves in a position to investigate that representational dimension from the point of view of reason relations as expressed in these two kinds of rational MVs (MV for expressing reason relations): Alethic modal and deontic normative MVs.

Last week we looked at Sellars’s distinction between *labeling* and *describing*.

We’ll find out this time that a notion of representation can usefully be put in between those two (at least on one way of reading his “labeling as classifying,” in terms of RDRDs).

This will help us **understand the crucial *representational* dimension of conceptual content, and make sure that we don’t turn the *distinction* between inferential and representational orders of semantic explanation into a *dualism*.**

It turns out that **we can learn a lot more about representation by thinking in terms of what is expressed by alethic and deontic modal vocabularies**—in addition to the observation that they specify the isomorphic reason relations of the world and vocabularies generally.

This is a new philosophical perspective on a central issue in philosophy since Descartes.

I’ll start back there, because a quick look at the history sets criteria of adequacy for an account.

Part I: Representation and Description:
Covariant Tracking, Normative Governance, and Conceptual Content

1) From Resemblance to Representation: The philosophical significance of the Scientific Revolution.

The key thing to realize is that representation is a distinctively *modern* concept.

Premodern (originally Greek) theories understood the relations between appearance and reality in terms of *resemblance*.

Resemblance, paradigmatically the relation between a picture and what it pictures, is a matter of *sharing* (local, independently definable) *properties*.

A portrait resembles the one portrayed insofar as it shares with its object properties of color and shape, for instance of nose, ear, and chin (perhaps as seen from some perspective).

The thought behind the resemblance model is that appearance is veridical insofar as it resembles the reality it is an appearance of in the sense of sharing properties with it.

Insofar as it does not resemble that reality, it is a *false* appearance, an *error*.

Plato and Aristotle had different ways of construing what was shared.

The rise of modern science made this picture unsustainable.

Copernicus discovered that the reality behind the appearance of a stationary Earth and a revolving Sun was a stationary Sun and a rotating Earth.

No resemblance, no shared properties there.

The relationship between reality and its appearance here has to be understood in a much more complicated way.

Galileo produces a massively effective and productive way of conceiving physical reality, in which periods of time appear as the lengths of lines and accelerations as the areas of triangles.

The model of resemblance is of no help in understanding *this* crucial form of appearance.

The notion of shared property that would apply would have to be understood in terms of the relations between this sort of mathematized (geometrized) theoretical appearance and the reality it is an appearance of.

There is no antecedently available concept of property in terms of which that relationship could be understood.

Descartes came up with the more abstract metaconcept of representation required to make sense of these scientific achievements—and of his own.

The particular case he generalized from to get a new model of the relations between appearance and reality (mind and world) is the relationship he discovered between algebra and geometry.

For he discovered how to deploy algebra as a massively productive and effective appearance of what (following Galileo) he still took to be an essentially geometrical reality.

Treating something in linear, discursive form, such as “ $ax + by = c$ ” as an appearance of a Euclidean line, and “ $x^2 + y^2 = d$ ” as an appearance of a circle allows one to calculate how many points of intersection they *can* have and what points of intersection they *do* have, and lots more besides.

These sequences of symbols do not at all *resemble* lines and circles.

Yet his mathematical results (including solving a substantial number of geometrical problems that had gone unsolved since antiquity, by translating them into algebraic questions) showed that algebraic symbols present geometric facts in a form that is not only (potentially and reliably) *veridical*, but conceptually *tractable*.

In order to understand how strings of algebraic symbols (as well as the Copernican and Galilean antecedents of his discoveries) could be useful, veridical, tractable appearances of geometrical realities, Descartes needed a new way of conceiving the relations between appearance and reality. His philosophical response to the scientific and mathematical advances in understanding of this intellectually turbulent and exciting time was the development of a concept of representation that was much more abstract, powerful, and flexible than the resemblance model it supplanted.

Descartes’s new conception is best understood in terms of what **Spinoza** made of it, by looking at what Descartes *did*, rather than what he *said* about what he did.

(Descartes himself adapted the obscure Scholastic idiom of the sun having “objective being” in our idea of it. See Joe Camp “Descartes, the last Scholastic.”)

In particular, Spinoza saw that the key to Descartes's *philosophy* is his principal *mathematical* innovation: algebraizing geometry.

Spinoza saw more clearly than Descartes himself did, that Descartes's real insight is that what made algebraic understanding of geometrical figures possible was **a *global isomorphism between the whole system of algebraic symbols and the whole system of geometrical figures.***

As Spinoza put it, "the order and connection of things is the same as the order and connection of ideas."

That isomorphism defined a notion of form shared by the licit manipulations of strings of algebraic symbols and the constructions possible with geometric figures.

In the context of such an isomorphism, the particular material properties of what now become intelligible as representings and representeds (the one-dimensional linear concatenation of algebraic symbols and the two- or three-dimensional spatial extendedness of geometrical figures) become irrelevant to the *semantic* relation between them.

All that matters is the correlation between the rules governing the manipulation of the representings and the actual possibilities that characterize the representeds.

Inspired by the newly emerging forms of modern scientific understanding, Descartes concluded that this *representational* relation (of which resemblance then appears merely as a primitive species) is the key to understanding the relations between mind and world, appearance and reality, quite generally.

This was a fabulous, tradition-transforming idea, and everything Western philosophers have thought since (no less on the practical than on the theoretical side) is downstream from it, conceptually, and not just temporally—whether we or they realize it or not.

Holism vs. Atomism, within a representationalist picture.

Empiricists are relentlessly atomistic in their understanding of representation. This was the basis of Sellars's objection to the Myth of the Given, and to Quine's objection to meaning as opposed to reference in Carnap.

Rationalists, while retaining the notion of representation, read it holistically rather than atomistically. This is the basis of Spinoza's notorious *hen kai pan*, and is striking in Leibniz, whose notion of degrees of perception and the infinite mirroring of monads is essentially holistic, in the sense that *any* difference anywhere would be a difference in *every* monad.

2) **Isomorphism is not enough. On to counterfactual dependences *inducing* isomorphisms. Covariant Tracking.**

Static isomorphism is not enough.

For any two objects, there is some description of each under which they are isomorphic. (For instance, can carve physical objects or processes up into spatial, or spatio-temporal regions to match any given structure.)

This is a point Putnam has emphasized.

And it can be extended to processes.

But finding a description under which the subjunctive (including counterfactual) conditionals come out right is very far from trivial.

Start with what can be expressed in alethic modal vocabulary: relations of reliable covariance in the form of tracking.

We can make such relations explicit with subjunctive conditionals.

Examples of this relation are the relations between rising temperatures and ice breaking, flagpoles and shadows, and pressure, temperature, and volume in the Boyle-Charles law.

This is not yet a good notion of representation—though it is an important first step.

(Dretske and Fodor heroically try to get by just with this, but their efforts are doomed.)

The second point, about the essentially *modal* character of representational relations, shows up already if we think a bit more about the map example I mentioned in connection with Leibniz.

To treat something as a *map* of something else is, Leibniz thought, a matter of the goodness of inferences from map-facts to terrain-facts.

What he perhaps did not sufficiently appreciate is the fact that **such inferences must be *subjunctively robust*.**

Part of treating something *as* a map is taking it that *if* the terrain *were* different, the map-facts *would be* different.

This is the basis of Fodor's account of representation in terms of "one-way counterfactual dependences of 'horses' on horses."

This point about the crucial role of *subjunctive robustness* of the relations between representings and representeds comes out in a striking way in the *Tractatus*. Picturing of object-facts by name-facts requires a "**method of projection**." And it turns out that projection in this sense includes at least that *if* the facts *were* or *had been* different, the representings *would be* or *would have been* different, in systematic ways. Such modal (subjunctively robust, counterfactual-supporting) relations are not picturable, according to the *Tractatus*. So by its standards, they are ineffable. They cannot be said. So Wittgenstein makes up a notion of showing to cover how we get onto them.

The *Tractatus* is not an *empiricist* work, because it is not *epistemological*. But its deep affinity with the empiricist tradition—appreciated by Carnap, Schlick, and Neurath—consists in no small part in its *atomism*, and in its *suppression* of this *modal* element, its fantasy of description *all the way down* (with the substantial progressive exception of its treatment of *logical* vocabulary as *non-descriptive*).

Here “descriptive” concepts are thought of as *extensional*, in Quine’s sense. He ran together under that heading two distinct properties: the intersubstitutability *salva veritate* of coreferential expressions and the expression of a property that, as we would say, applies or does not apply in a possible world independently of how things are in any other possible world. The latter is *modal insulation*.

The significance of this *modal* dimension of representing is that more is required than just *isomorphism*—even *global* isomorphism, non-atomistically conceived.

Even *picturing*, thought of as resemblance, as consisting in the sharing of local properties, already had to have this modal dimension.

Otherwise one gets merely *accidental* pictures: the water stain or piece of toast that is a “picture of Jesus,” the Swampman, the pattern in the dust on the Moon that has the shape of the equation “ $e = mc^2$.”

The move from sharing of *local, atomistic* properties to sharing of *global, holistic* properties, which is, as Spinoza saw, the move to *isomorphism* was momentous.

But, properly understood, even local, atomistic picturing of the Tractarian kind, still requires the modal dimension: that *if* the object pictured *had* had a different local property, the picture *would* have had a different local picture-property.

One can see philosophers exploring the significance of moving around the modal bump in the descriptive-representational rug. For there are three possible loci:

i. modally robust relations among representeds: the “law-governed” behavior of objective things, properties, and relations. (Note, but put to one side, the important but subsidiary issue of the mistake—understandable in the wake of Newton, but a mistake nonetheless—of thinking that behind every sort of subjunctive robustness there must be a universal covering *law* that is the real locus and source of that subjunctive robustness. This has been a hard prejudice to wrestle ourselves out of. But the counsel of wisdom is: subjunctives first, necessities later (if at all). Modal *logic* of the C. I. Lewis kind, the subject of the first wave of the modal revolution, misled in this regard. It is essential to the second wave that we move beyond this crude restriction of modal expressive power.)

ii. modally robust relations between representeds and representings. This is the point about “modes of projection” and the essential alethic modal dimension of representation or description as such.

iii. modally robust relations among representings. These are the “habits” of the Humean empiricist or the Peircean pragmatist. Programs of taking one or another of these as primary in the order of semantic (and so, epistemological) explanation have flourished. So, for instance, Humean-Blackburnian *modal expressivism* takes (iii) as primary, and sees them as “projected” into (i) by (ii). This notion of projection runs in the opposite direction from the Tractarian one.

At the opposite end of the spectrum of possibilities, *causal modal-realist*-representationalist approaches (like Fodor’s) want to understand *both* (ii) and (iii) as species of (i).

A variant of the *modal realist-representationalist* approach, one can understand (ii) as having a special *selectional* form. Millikan-style *teleosemantics* does this.

Peirce is special in taking the model of “selection of habits” as the covering model for *all* of (i), (ii), and (iii). Selection here is the special kind of alethic modal relation common to Darwinian evolution of species and individual learning. (Menand)

Kant occupies a special place in seeing (iii) as primary. I should think carefully about the differences between his *idealist* strategy and that of the Humean-Blackburnian expressivist.

3) **The normative character of the “order and connection of ideas.” Kant on representation as a normative concept. Normative Governance.**

As to the third lesson, **Kant** was not only the philosopher who made explicit what was implicit in the Enlightenment concern with *representations*, he was also, crucially, the philosopher of *rules*.

And those large orienting concepts, representation and rule are intimately linked for him. Understanding Kant is in no small part a matter of understanding the intricate ways in which he saw the concepts of rules and of representation as related.

From Kant’s point of view, while Spinoza was entirely right to see that it was the essence of the representational relation between them that “the order and connection of things is the same as the order and connection of ideas,” **what Spinoza did not see is that the order and connection of represented things is articulated by rules in the form of laws of nature, expressible in alethic modal terms, while the order and connection of ideas is an essentially normative order**, articulated by rules specifying what conclusions one *ought* or is *obliged* to draw from judgments to which one has *committed* oneself.

Rules, Kant says, express relations of *necessity*.

And necessity is a genus with two species: natural and practical (expressed respectively by alethic and deontic modal vocabularies).

The rationalists implicitly, at least dimly grasped the “rulishness” of the holistic “order and connection” of things and ideas, even if their idea of that order and connection as “rational” ran together the two importantly different species. The empiricists were oblivious to it.

Hegel thought that it was one of Kant’s central insights—even though he never makes it explicit—to see the *relation* of representation as *also* an essentially *normative* relation. This is the idea that something counts as a representing of something it represents just insofar as it is **responsible to** that represented thing, in that what is represented provides the normative standard of assessment of the *correctness* of the representing *as* a representing of that represented.

What is represented is precisely what exercises that sort of normative **authority** over what counts as a representing of *it* just insofar as it is responsible to the represented in this sense.

The next element needed (what Millikan realizes, that Dretske and Fodor do not) is **normative**. Here the lesson is from Kant, according to my Hegel.

Representation is a normative concept.

It requires that representeds be *authoritative* w/res to representings, that representings be *responsible* to what counts as represented by them just in virtue of serving as normative standards for assessments of their correctness *as* representings of those representeds.

I’m going to call this “**normative governance**” of representings by representeds.

It is expressed in deontic normative terms. (Not axiological.)

So we *should* next look at deontic normative vocabulary.

What is the expressive role characteristic of normative vocabulary as such?

It is a distinctive *role in reasoning*.

But here we have to go beyond the purely doxastic kinds of reasoning we have looked at so far.

For it is role in *practical* reasoning that makes normative vocabulary normative vocabulary.

(3 kinds of practical reasoning, and corresponding rational ‘oughts’, from last week’s handout.)

The role in reasoning characteristic of normative vocabulary:

[Refer to this, but don’t rehearse it. Discussion of parallel with deontic case is being suppressed for reasons of time.]

Consider the following three bits of practical reasoning:

- α) Only opening my umbrella will keep me dry, so
I shall open my umbrella.
- β) I am a bank employee going to work, so
I shall wear a necktie.
- γ) Repeating the gossip would harm someone, to no purpose, so
I shall not repeat the gossip.

The Humean-Davidsonian approach treats these as enthymemes, whose missing premises might be filled in by something like:

- a) I want (desire, prefer) to stay dry.
- b) Bank employees are obliged (required) to wear neckties.
- c) It is wrong (one ought not) to harm anyone to no purpose.

Thesis:

Normative vocabulary (including expressions of preference) **makes explicit the endorsement (attributed or acknowledged) of material patterns of practical reasoning** relating *doxastic* commitments to *practical* commitments.

Lesson: **distinctive expressive job characteristic of normative vocabulary as such** (of which moral vocab is at most one species—at most because it might not be a natural kind, at least the distinctively modern sense that comes to full flower in Kant: Protestant theology pursued “within the bounds of reason alone.”) **is to codify patterns of practical reasoning**, and express endorsements of those patterns.

Deontic vocabulary (one important point of contrast with axiological vocab) essentially is socially perspectival.

We must distinguish the first-personal context of deliberation (which is what our examples have), concluding in ‘shall’s, from second- or third-personal contexts of assessment, concluding in ‘should’s.

This deep connection between ‘shall’ expressing intention and ‘should’ expressing propriety is worth investigating, but I will not pursue it here.

[Don’t pursue the notes just below in class. Skip to “Representation”]

Should admit that this notion will not be worked out satisfactorily here.

It will function as a black-box, a stand-in, to be filled in later.

It is a crucial notion, an essential part of the story I want to tell.
But what is most important to me for this session is to see the work I want it to do.
I will be issuing a promissory note (IOU).

The work I want the concept normative governance to do is to play its role in this structure:
Alethic and deontic modal vocabulary come into the story in four concentric sequential roles:

- i. Characterizing world and vocabularies (objective and subjective poles of intentional nexus).
- ii. Characterizing covariant tracking and normative governance = the relations that define representation.
- iii. Stating alethic modal and deontic normative facts.
So these vocabularies are both metavocabularies and descriptive.
- iv. Related to those facts by covariant tracking and normative government.
So these vocabularies are both metavocabularies and representational.

Playing a suitable role in this structure sets the criteria of adequacy for this notion, as it were, from *above*.
The pieces I have available to build something playing that role (from *below*) are (include) these:

- a) The Kantian story (my Hegel claims) about its being essential to the representational relation that what plays the functional roles of *represented*s and *representing*s stand to one another in normative relations of authority and responsibility (according to the one who takes them to stand in that relation).

Representeds are *authoritative* over assessments of the correctness—in a distinctive sense that I will call ‘R-correctness’—of what count as representings of it just in virtue of being *responsible to* those representeds for their correctness in that distinctive sense.

- b) R-correctness (for “Representational correctness”) is not to be confused with entitlement to commitments in the reason-related sense that I have given to that term thus far. It is a further notion.
- c) It is a *normative* concept.
- d) Thus far, I have understood normative concepts in inferentialist terms of their role in *practical* reasoning. But I have explicitly considered only their role in practical reasoning from the first-personal point of view of the context of *deliberation*.

The three senses of rational ‘ought’ from AR 2 are all of this sort, with conclusions of the ‘shall’ rather than the ‘should’ sort.

But R-correctness has its home in *assessments* of practical propriety.

This distinction lines up, I think, with Sellars’s “ought to do” vs. “ought to be” distinction, with the former appropriate to deliberation and the latter to assessment.

But I have not filled in any story about this sort of role in practical reasoning.

- e) R-correctness becomes truth when what is being assessed is the R-correctness of (declarative) *sentences*, that is, when what is at issue is *descriptive, fact-stating* discourse.

But it applies already to maps, which are *not* descriptive or fact-stating.

Here what is at issue is that *if* the square dot stands for or represents Pittsburgh, then it *ought to be* that Pittsburgh has a population between 250,000 and 500,000.

This is an implication from map-facts to terrain facts.

But the map-facts are not *commitments*. (At least not directly. There might be derivative commitments on the part of the map maker.)

- f) In terms of conditionals, R-correctness runs in the other direction from covariant tracking. The map *would be* R-correct *only if* things were thus-and-so.
- g) If the map *were* like this, then it *ought to be that* the terrain is thus-and-so.
 For the map to *track* the terrain, by contrast, is for conditionals of this sort to hold:
 If the terrain *were* different, the map *would be* different.
 The conditionals that matter for normative governance are from map-facts to terrain-facts, that is, to how the terrain facts *ought to be* (what they would have to be in order for the map to be R-correct), given the map-facts.

My discussion of “reliability inferences” in *MIE* and elsewhere ran together covariant tracking and normative government, and the implications and conditionals that they involve.

Representation:

If we add *normative governance* to covariant tracking, we get a usable notion of representation.

For instance: maps. (Not yet conceptual.)

Notice that tracking goes beyond Tractarian picturing, in not being static.

(Granted, LW does talk about “senses” as “methods of projection.”)

Sellars’s notion of *picturing* clearly wants the rule-governedness of a process as essential to it, but he sometimes falls back into isomorphism talk.

Officially, picturing, as a process, induces isomorphisms, as a result.

Picturing does not consist solely in the resulting isomorphism.

With these relations, two kinds of reasoning relating map-facts (in map vocabulary) and terrain-facts (in terrain vocabulary) are possible, one whose conclusion is alethic (if terrain were different, map would be different), the other deontic (if terrain were different map should be different).

Also have converses of these, with different statuses.

I think there are three fundamental lessons about the concept of representation that we should see as emerging from Enlightenment investigations of it, culminating in Kant and Hegel:

1. **Representation is an essentially *holistic* concept.** The Spinoza and Leibniz were just right about this.
2. **Representation and description essentially involve subjunctively robust relations between representings and representeds, relations that are properly specified in *alethic modal* terms.** In this sense, representation and description are not purely *descriptive* terms, in the straitened sense that empiricists give to that term, expressing what Sellars took to be their mistaken descriptivist scruples.
3. Representation has **an essential *normative* dimension.**

Then we can ask: What more is needed for *description*?

Last week we rehearsed Sellars’s distinction between *labeling* and *describing*.

I’ve now filled in a richer notion of representation for the first.

4) **Description as *conceptual* representation. Reason relations among representings, covariantly tracking and normatively governed by relations of consequence and incompatibility among representeds.**

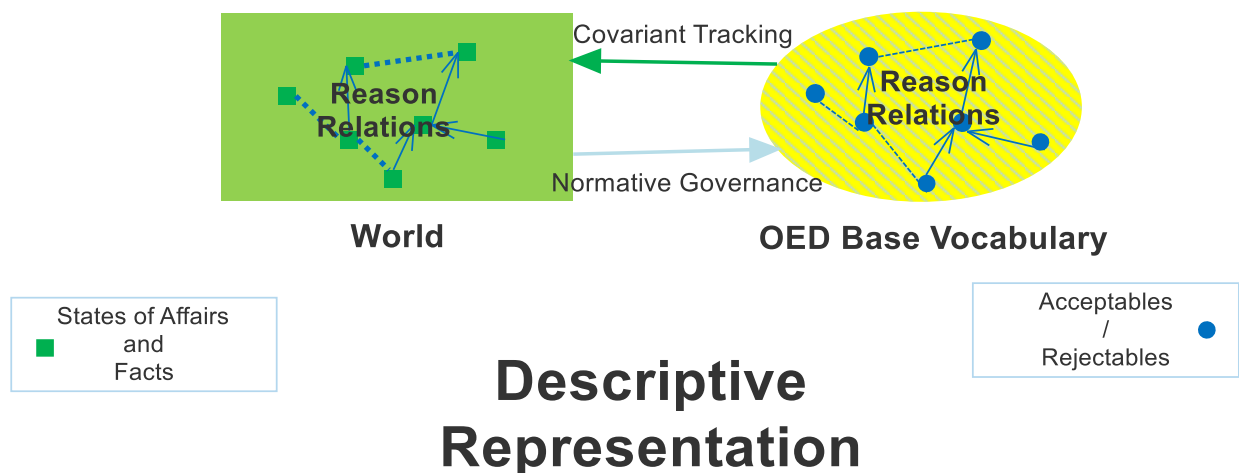
Do not yet have description.

For that must add that representings must stand in reason relations to one another, that is, be conceptually articulated, and that they must state facts that are represented.

For *description and fact-stating, representings must be sentences in a vocabulary.*

To have *description*, rather than just *representation*, must in addition have that the representings are articulated by *reason relations*, that is, are a *vocabulary*.

This, I am claiming, is descriptive vocabulary. [Diagram 2].



This is a Spinozistic picture.

Spinoza had the idea that Descartes’s notion of representation was of a global isomorphism, modeled on the relations between algebra and geometry (discursive representings of extended representeds).

He does not appreciate the *process* by which the isomorphism is established.

He does not appreciate the importance of counterfactual dependences (=covariant tracking) on that process.

He did not appreciate the normative character of the “order and connection of ideas.”

5) **Metavocabularies of Representation and Description**

First punchline (punchline of Part I) then is:

- Have RDRD **tracking** relations, articulating natural world, as the form relations of consequence and incompatibility take. (Incompatibility because a situation can also preclude a certain range of responses.)

That is not enough for representation, though it is for (a kind of) practical classification.

(What one is classifying something *as* is the response-kind.)

- **When one adds normative governance, one gets *representation*.**

(Kant's—according to my Hegel—insight into the normative character of representing/represented.)

- **If one then adds that the representation (classification) is conceptual, one gets description.**

“Conceptual classification” here is a matter of the subjunctive conditional being of the form:
If things are thus-and-so, one *ought* to accept (reject) the claim that-p.

All of these relations are specifiable in terms of *conditionals*.

All have alethic modal vocab in antecedent.

- Reliable tracking has alethic modal vocab in consequent.
- Normative governance already requires deontic normative vocabulary in the consequent: “ought to” or “it would be correct to”, “is committed to (do)” or “is entitled to (do).”
- Description has deontic normative vocabulary of the NG type, but also, in its scope, acceptance or rejection of some claimable—that is, something that stands in *normative* relations of consequence and incompatibility to other such claimables.

Responsive discrimination (RD) (covariant tracking CT):

If *S were* to occur, *R would* occur.

Representation: RD-CT plus Normative government (NG):

If *S were* to occur *R* could be *correct* (the system would be *entitled* to produce *R*).

Description: RD-CT plus NG plus appropriate *conceptual* response:

If *S were* to occur, *R* could be *correct* to accept that *S*.

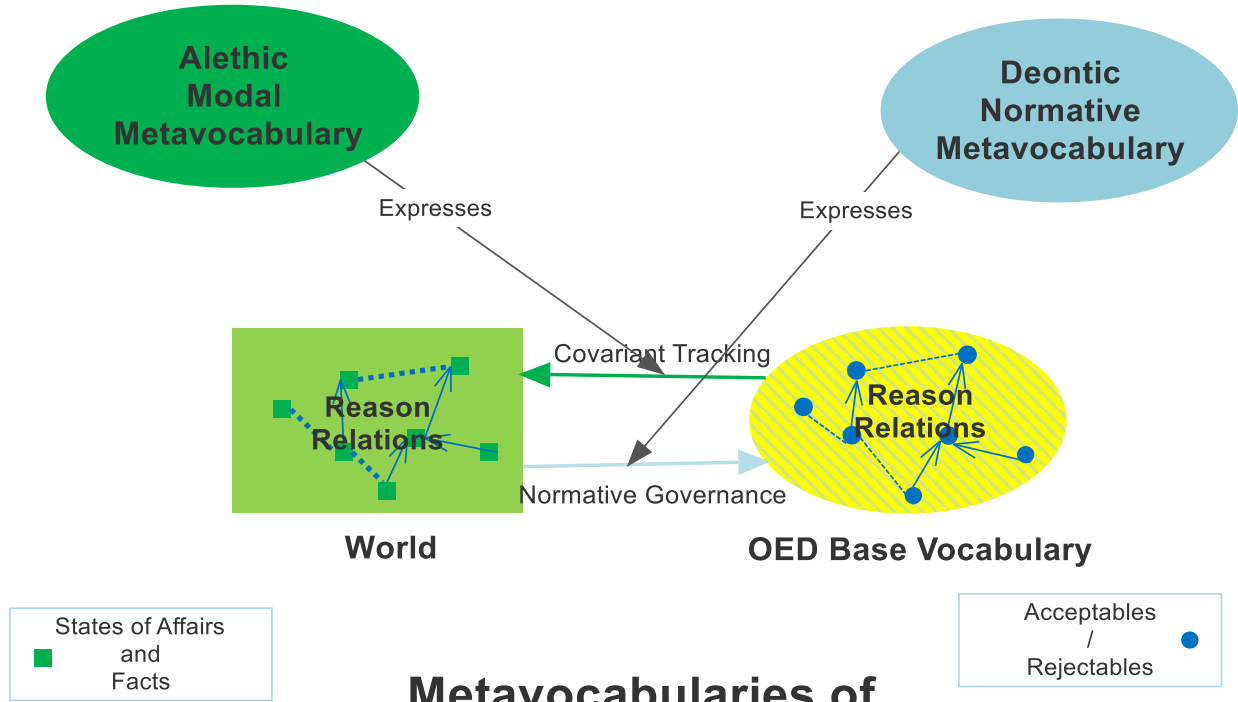
Mention Paul Grice's inchoate-incoherent last work, from unpublished Locke lectures, assembled posthumously under the title *Aspects of Reason*.

It explores deep linguistic connections between alethic and deontic modal vocabulary, both as senses of ‘must’, ‘should’, and ‘ought’.

Sellars's clue that “The language of modality is a transposed language of norms.”

Other than these two, I'm not sure anyone else has worried about the relations between these two sorts of metavocabulary that we are seeing as central: alethic and deontic modal MVs.

They are intricate, with a fascinating fine structure.



Metavocabularies of Representation

Basic components of *representational* relations, namely covariant tracking and normative governance, are specified in *alethic modal* and *deontic normative* (meta)vocabularies.

This is a further level of fine structure, beyond the termini of the representation relation being specifiable in alethic modal and deontic normative vocabularies.

But there is still a further level of analysis at which we can *also* see alethic/deontic vocabularies coming into the story *twice more*.

Part II: Stating (Representing and Describing) Stating Alethic and Deontic Modal Facts

6) Modal Realism: Modal Vocabulary is Descriptive-Representational = Fact-Stating.

a) Why we should want to be entitled to say this.

This sketch of a program for extending the Kant-Sellars tradition of modal expressivism raises a myriad of questions, some of detail, others more substantial. Rather than beginning to fill in that sketch by addressing some of those questions, I want to confront the ideas that motivate it with a different set of intuitions: those that motivate a robust modal realism. By “modal realism” I mean the conjunction of the claims that:

MR1) Some modally qualified claims are *true*.

MR2) Those that are state *facts*.

MR3) Some of those facts are *objective*, in the sense that they are independent of the activities of concept-users: they would be facts even if there never were or never had been concept-users.

There are strong reasons to endorse all three of these claims. As to the first, physics tells us things such as: “Two bodies acted upon only by gravitational forces necessarily attract one another in direct proportion to the product of their masses and in inverse proportion to the square of the distance between their centers of mass.” I take it this claim, for instance, is true. Even if it is not, I take it that *some* claims of this form, purporting to state laws of nature, do, in fact, state laws of nature. Denying this brings one into direct contradiction with the empirical sciences themselves. Supporting such a position would require a strong argument indeed. For the empirical sciences are in the business of making subjunctive and counterfactual-supporting claims. That is, they offer not only *descriptions*, but *explanations*. Indeed, the descriptions they offer are essentially, and not just accidentally, available to figure in explanations of other descriptions.

The second claim is, I think, true in virtue of the definition of ‘fact’. A fact, Frege says, is a thought that is true. He means ‘thought’ in the sense of something thinkable, not in the sense of a thinking, of course. For there can be unthought facts. On this usage, it is alright to say that facts

make thoughts or claims true only in the sense that facts make acts of thinking and claiming true. For the facts just *are* the true thinkables and claimables. Wittgenstein is appealing to this way of using ‘fact’ when he says: “When we say, and mean, that such-and-such is the case, we—and our meaning—do not stop anywhere short of the fact; but we mean: this—is—so.” On this usage, if there are true modal claims—in the sense of true modal claimables, or modal claimings that are true in that they are claimings of true claimables—then there are modal facts. Modal facts are just facts statable using modal vocabulary, as physical facts are facts statable using physical vocabulary, nautical facts are facts statable using nautical vocabulary, and so on.

The third claim is perhaps the most controversial of these three platitudes. But I think the same principle I implicitly invoked in talking about the first claim underwrites it. Physics tells us that the current laws of nature were already laws of nature before there were human concept-users. And, although it does not specifically address the issue, it is clearly committed to the claim that the laws would have been the same even if there never had been concept-users. Indeed, many of the laws of nature (including all the Newtonian ones) exhibit a temporal symmetry: they hold indifferently at all times. So they are independent of the advent, at some particular time, of concept-users. And one of the mainstays of physics over the last century—substantially contributing to its distinctive conceptual shape—is the result of the Noether theorem that tells us (entails) that that this **fundamental temporal symmetry** is mathematically equivalent to the physical principle of **conservation of energy**. Denying MR3 is denying the temporal symmetry of laws of nature. And the theorem tells us that that means denying the conservation of energy. While there are reasons from the bleeding edge of physics to worry about the universal truth of the principle of conservation of energy, those considerations are irrelevant in the current context: they do not stem from the presence or absence of concept-users in our world). I conclude that one cannot deny MR3 without taking issue with substantial, indeed fundamental, empirical issues in physics.

There is another line of argument to the conclusion that commitment to **modal realism is implicit in commitment to a corresponding realism about claims expressed using ordinary empirical descriptive vocabulary**. It will make clearer the relation between one kind of alethic modality and conceptual content. We can begin with a platitude: there is some way the world

objectively is. How it objectively is must be discovered by empirical inquiry, and sets a semantic and epistemic standard for assessment of the correctness of our descriptive claimings as potential expressions of knowledge. The question is how to understand the relation of modal facts (if any) to how the world objectively is as describable (at least sometimes) in non-modal empirical descriptive vocabulary. One might ask a supervenience question here, but the line of thought I am concerned with goes a different way. It asks what modal commitments are implicit already in the idea of an empirically describable world. It focuses on the *determinateness* of the way things objectively are.

To talk about how things objectively are as determinate is to invoke a contrast with how they are not. This idea is summed up in the Spinozist (and scholastic) principle *omnis determinatio est negatio*. This thought is incorporated in the twentieth-century concept of information (due to Shannon), which understands it in terms of the partition each bit establishes between how things are (according to the information) and how they are not. But there are different ways we might follow out this idea, depending on how we think about the sort of negation involved. What I'll call the "Hegelian" model of determinateness insists that it must be understood as what he calls "exclusive" [ausschließend] difference, and not mere or "indifferent" [gleichgültig] difference.¹

Square and **circular** are exclusively different properties, since possession by a plane figure of the one excludes, rules out, or is materially incompatible with possession of the other. **Square** and **green** are merely or indifferently different, in that though they are distinct properties, possession of the one does not preclude possession of the other. An essential part of the determinate content of a property—what makes it the property it is, and not some other one—is the relations of material (non-logical) incompatibility it stands in to other determinate properties (for instance, shapes to other shapes, and colors to other colors). In fact, Hegel's view is that determinateness is a matter of standing in relations of material incompatibility (his "determinate negation") and material consequence (his "mediation") to other determinates. We might think of these as related by the principle that one property, say **metallic** is a consequence of another, **copper**, in

¹ The rubric 'Hegelian' here is tendentious, and liable to be alarming. More seriously, it is liable to be unhelpful. For now, treat it as a mere label. I will say what I mean by it—give it some content—as we go along.

case everything incompatible with being metallic (say, being a mammal) is incompatible with being copper. A property possession of which rules out possession of *no* other properties, and has as a consequence possession of no others, is in so far such *indeterminate*.

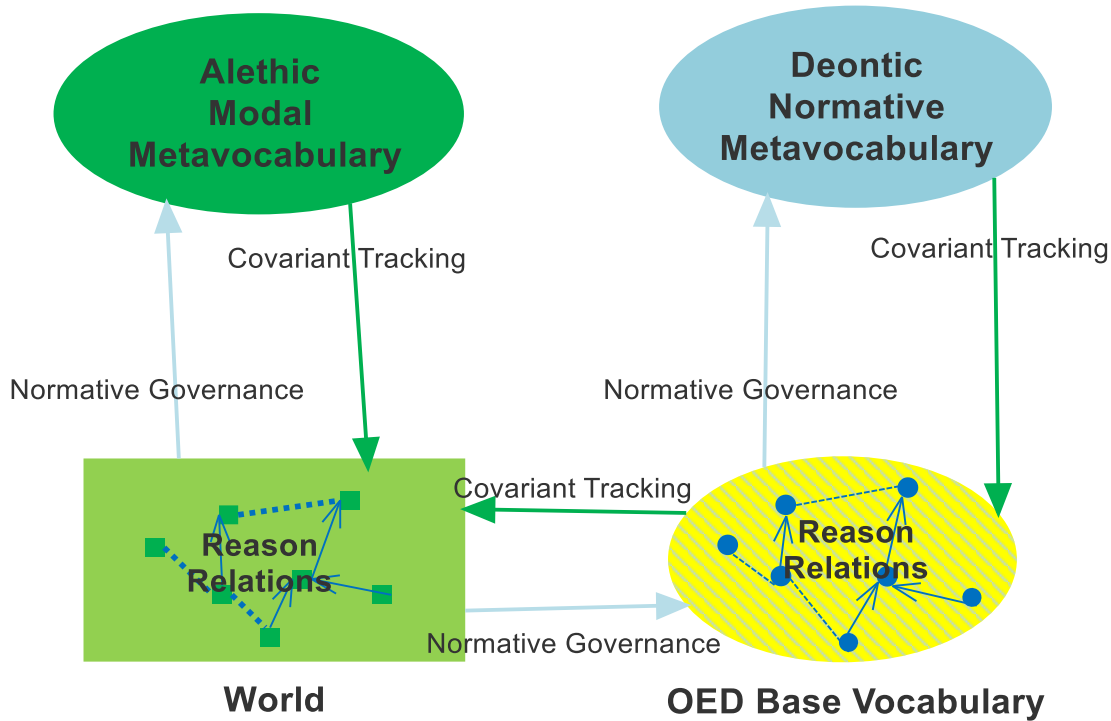
These are the “reason relations” we have been thinking about.

As we saw, Sellars insists that it is standing in such relations that makes empirical descriptive vocabulary genuinely *descriptive*, that is, expressive of descriptive *concepts*, rather than merely functioning as reliably differentially responsively elicited *labels*. And we have seen that the sort of modal realism I have been sketching has as one of its consequences that empirical descriptive properties and states of affairs stand to one another in relations of material consequence and incompatibility. So Hegel offers us definitions of what it is to be *determinate* and to be *conceptually articulated*, according to which to take the objective world to be determinate is to take it to be *modally* articulated and to be *conceptually* articulated. That is, it commits one both to modal realism and to conceptual realism: the view that the objective world is modally, and *so* conceptually structured, quite apart from its relations to us.

- b) How we can entitle ourselves to say that modal vocabulary can be descriptive and fact-stating:

By showing all three elements needed:

- Covariant tracking by modal claims (subjunctive conditionals) of modal relations of consequence and incompatibility.
- Normative governance of modal claim(ing)s by actual relations of necessary consequence and impossibility.
- Modal vocabulary is a vocabulary, whose principal role is expressive of reason relations of base OED vocabulary, but can also track features of the world.



Stating Alethic and Deontic Modal Facts

Last week we saw what one is *doing* in using alethic modal vocabulary—namely, endorsing patterns of reasoning. Now we see what one is *saying* in using alethic modal vocabulary. One is stating facts about worldly relations of consequence and incompatibility.

- 7) **Deontic Realism: Deontic Vocabulary is Descriptive-Representational = Fact-Stating.**
- Why we should want to be entitled to say this.
 - How we can entitle ourselves to say this.

8) Conclusion

Alethic and deontic modal vocabulary come into the story in five concentric sequential roles:

- Characterizing world and vocabularies (objective and subjective poles of intentional nexus). First diagram.
- Covariant tracking and normative governance. Second diagram.
- Characterizing covariant tracking and normative governance = the relations that define representation. Third diagram.
- Stating alethic modal and deontic normative facts.
 - So these vocabularies are both metavocabularies and descriptive. Fourth diagram.

- v. Related to those facts by covariant tracking and normative government.
So these vocabularies are both metavocabularies and representational.

This is one dimension of fine structure of the representational dimension of conceptual content, as resolved into elements of tracking and governance.