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Intentionality as a Pragmatically Mediated Semantic Relation

I Pragmatism and semantics (“I sing of words and the world”)

Under the banner of “analytic pragmatism” I have been illustrating how deploying the metavocabulary of meaning–use analysis can both broaden our understanding of possible kinds of semantic analysis and help turn contemporary pragmatism from a primarily critical into a more constructive instrument—from a weapon suitable for the heavy, heroic, but occasional work of slaying dragons of conceptual confusion into a tool adapted for everyday domestic analytical and theoretical use. As its name implies, the broader sort of analysis I have been recommending considers relations between meaning and use (between vocabularies and practices-or-abilities). The principal complex resultant meaning–use relation I have focused on is that which obtains when one vocabulary is algorithmically elaborated from and explicating of (“LX for” in short) some practices-or-abilities that are PV-sufficient to deploy another vocabulary. This, I have argued, is the genus of which *logical* vocabulary is a species. In Lecture 4 I showed how modal vocabulary and the vocabulary used to discuss specifically conceptual norms can also be understood and introduced as like logical vocabulary in being *universally* LX: elaborated from and explicating of practices PV-necessary for *every* autonomous discursive practice. Furthermore, the technical means employed in meaning–use analysis, for instance, both algorithmic decomposition and complex meaning–use relations, are not only *analogous* to the logical relations appealed to by the semantic logicist dimension of classical philosophical analysis, but are important for understanding why logical vocabulary deserves

the special role it has traditionally been taken to play in such semantic analysis.

It is high time, however, to look more closely at the claim that the topic I have been addressing deserves to be called *semantic* analysis in the first place. I have not so far said anything at all about word–world relations, or about representation. And the formal incompatibility semantics I presented last time is notable in part precisely for the fact that it does *not* deploy a notion of truth. I have, to be sure (as promised in the title of the lectures) talked about saying and doing, and about some of their relations: about the kinds of doings that are sayings, and about the kinds of sayings that specify those kinds of doing. But my talk of ‘vocabularies’ and the practices of deploying them can make it look as if *all* that is in play is words and their use. If the *world* is left out of the story, what justification could there be for saying that *meaning* has not been? And if a slide has been initiated in lining up saying and doing with meaning and use, it would seem only to be accelerated by my practice of talking about both in terms of the distinction between semantics and pragmatics. The use of the term ‘pragmatics’ to encompass meaning-conferring aspects of use in general is non-standard, though I think it is fairly straightforwardly motivatable. But in what sense, it might be asked, have the *meanings* of the vocabularies I have addressed been under discussion, if the relations between those *words* and the *world* that using them to *say* something consists in talking *about* do not come into view? Doesn’t the story I have been telling remain too resolutely on the ‘word’ side of the word/world divide?

The short answer is that while at least some kinds of representings (for instance linguistic utterance-tokenings thought of as mere sign-designs, items or events in the natural order, Wittgenstein’s signpost considered just as a piece of wood) can intelligibly be specified independently of what they represent, when properly conceived, practices and abilities are *not* the kind of thing that can be separated from the objects they involve in the way necessary for them to fall on the ‘word’ side of a word/world gulf. Engaging in discursive practices and exercising discursive abilities is using words to say and mean something, hence to talk about items in the world. Those practices, the exercise of those abilities, those uses, *establish* semantic relations between words and the world. This is one of the big ideas that traditional pragmatism brings to philosophical thought about semantics: don’t look, to begin with, to the relation between representings

and represented, but look to the nature of the doing, of the process, that institutes that relation. It is an idea that is explicit in Dewey, and at least implicit in Wittgenstein. This pragmatist privileging of process over relation in the order of semantic explanation is worth looking at more closely.

It can be thought of in terms of a nested sequence of claims:

- P1] A founding idea of pragmatism is that the most fundamental kind of intentionality (in the sense of directedness towards objects) is the *practical* involvement with objects exhibited by a sentient creature dealing skillfully with its world.
- P2] The most basic form of such activity is a Test–Operate–Test–Exit (TOTE) cycle of perception, performance, assessment of the results of the performance, and further performance—that is, a process or practice consisting of an open-ended sequence of feedback-governed performances.¹

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It includes both what a predator does in stalking its prey and what a builder does in constructing a house.

As we have seen, often a practice-or-ability in this sense can show up as *complex*, in that a suitably rich VP-sufficient metavocabulary can specify it as the algorithmic elaboration of more basic reliable differential responsive dispositions. Doing so displays its structure as comprising a sequence of simpler doings, as exhibiting a plan structure, or as implementing a conditional branched-schedule algorithm. Feedback-governed processes, practices, and abilities exhibiting this sort of complexity cannot in principle be specified without reference to the changes in the world that are both produced by the system's responses and responded to within each loop in the TOTE cycle. This fact underlies another important pragmatist claim:

- P3] Feedback-governed practices are 'thick', in the sense of essentially involving objects, events, and worldly states of affairs. Bits of the world are *incorporated* in such practices, in the exercise of such abilities.

In this regard they contrast with words and sentences, considered merely as sign-designs or items in the natural world, which are 'thin' in that they

¹ I don't say that this stripped-down description is *sufficient* to pick something out as sentient—only that sentient things must satisfy this abstract characterization.

can be specified independently of a specification of the objects or states of affairs they refer to or represent. This difference is (I think properly) put forward as one of the cardinal advantages of approaching semantics from a pragmatist direction. As I have indicated, I think it, too, should be understood in terms of features of the vocabularies that are VP-sufficient to specify the practices in question. Think of the practices of attaching two flat objects by using nails and a hammer (henceforth “hammering”) or screws and a screwdriver (henceforth “screwing”). You cannot say what hammering and screwing are without referring to the actual objects incorporated in them in different ways: the hammers, nails, and so on, that play essential roles in those practices. This is a VV-necessity relation concerning the vocabularies that are VP-sufficient to specify this basic sort of practical transaction: in order to specify this kind of practice-or-ability, one must use vocabulary that picks out *objects* they involve.

The next piece of the pragmatist approach to intentionality is the claim that:

- P4] The specifically *semantic* intentionality displayed in language-use, engaging in *discursive* practices, deploying an autonomous *vocabulary*, should be understood both as a development of and as a special case of the sort of basic *practical* intentionality exhibited already by the kind of feedback-governed transactions mentioned in the first three theses.

Now we must ask what the relation is between understanding saying as that sort of doing, on the one hand, and understanding it as representing—as establishing a *semantic* relation between subjective doings and objective states of affairs, between representings and representeds—on the other.

It is only in terms of an answer to this question that we can give a definite sense to the final claim of the pragmatist line of thought I have been sketching:

- P5] One cannot understand the two poles of specifically semantic or discursive intentionality—knowing and acting subjects and the objects they know of and act on, their representing activities and the objects and objective states of affairs they represent—independently of the semantic intentional relations they stand in to one another, and then somehow bolt together those ways of understanding the

relata to understand those relations between them. One must rather start with an understanding of the thick, essentially world-involving practices engaged in and abilities exercised, and abstract from or dissect out of that an understanding of the two poles of the semantic intentional relations those practices and abilities institute or establish.

It is commitment to this order of semantic explanation that is, I think, most characteristic of the philosophical tradition I have been calling “pragmatist.”²

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2 Normative and modal vocabularies again

How can the metavocabulary of meaning–use analysis I have been developing for analyzing complex resultant meaning–use relations be applied to make more definite the Deweyan claim about the possibility of extracting an understanding of the relata of intentional and semantic relations from a

² The theme is pervasive in Dewey’s writings, from the time of his early “The Reflex-Arc Concept in Psychology” (1896; reprinted in *John Dewey: The Early Works 1882–1898*, Jo Ann Boydston (ed.) (Southern Illinois University Press, 1972), vol. 5, 97–110). Here are some representative passages from the late *Experience and Nature* (1925; reprinted in *John Dewey: The Later Works 1925–1953*, Jo Ann Boydston (ed.) (Southern Illinois University Press, 1981), vol. 1):

[By contrast to the traditional view:] Subjective and objective distinguished as factors in a regulated effort at modification of the environing world have an intelligible meaning. (p. 185)

We begin by noting that “experience” is what James called a double-barrelled word. Like its congeners, life and history, it includes what men do and suffer, what they strive for, love, believe and endure, and also how men act and are acted upon, the ways in which they do and suffer, desire and enjoy, see, believe, imagine—in short, processes of experiencing. “Experience” denotes the planted field, the sowed seeds, the reaped harvests, the changes of night and day, spring and autumn, wet and dry, heat and cold, that are observed, feared, longed for; it also denotes the one who plants and reaps, who works and rejoices, hopes, fears, plans, invokes magic or chemistry to aid him, who is downcast or triumphant. It is “double-barrelled” in that it recognizes in its primary integrity no division between act and material, subject and object, but contains them both in an unanalyzed totality. “Thing” and “thought,” as James says in the same connection, are single-barrelled; they refer to products discriminated by reflection out of primary experience. (p.19)

I still believe that on theoretical, as distinct from historical, grounds there is much to be said in favor of using “experience” to designate the inclusive subject-matter which characteristically “modern” (post-medieval) philosophy breaks up into the dualisms of subject and object, mind and the world, psychological and physical. (p. 362)

The value of experience for the philosopher is that it serves as a constant reminder of something which is neither exclusive and isolated subject or object, matter or mind, nor yet one plus the other. The fact of integration in life is a basic fact, and until its recognition becomes habitual, unconscious and pervasive, we need a word like experience to remind us of it, and to keep before thought the distortions that occur when the integration is ignored or denied. (p. 385)

conception of practices that conditionally link sequences of perception and action in processes of transaction with an environment?

The way I will pursue here looks to our earlier discussion of the expressive roles characteristic of *normative* and *modal* vocabularies. I have made a number of claims about them over the course of these lectures. The most basic of these, introduced in the fourth lecture, was that each of these vocabularies should be seen as LX for, as elaborated from and explicating of, various features essential to every autonomous discursive practice. The features of discursive practice from which the normative vocabulary of commitment and entitlement is elaborated and which it makes explicit are different from those from which the modal vocabulary of necessity and possibility are elaborated and made explicit. But they are intimately related. What I want to claim now is that those features correspond, respectively, to the subjective and the objective poles of intentional relations. Further, the relation between normative and modal vocabulary explored in my fifth lecture—in particular, the way in which normative vocabulary can be understood to serve as a pragmatic metavocabulary for modal vocabulary—provides an important tool for understanding the relation between the use of expressions as representations and what they represent.

The basic idea is that normative vocabulary makes explicit important features of what knowing and acting subjects *do* when they deploy a vocabulary, when they *use* expressions so as to *say* something. And modal vocabulary makes explicit important correlative features both of what is *said* and of the objective world that is talked *about*. Put another way, normative and modal vocabulary, each in its own way, articulate discursive commitments. But normative vocabulary addresses in the first instance *acts* of committing oneself, whereas modal vocabulary addresses in the first instance the *contents* one thereby commits oneself to—not in the sense of what other *doings* committing oneself to a claim commits one to, but in the sense of how one has committed oneself to the world being, how one has represented it as being.³ If there is anything to this idea, then thinking about complex, pragmatically mediated resultant semantic

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³ We are now going to look at the fine structure that articulates the very broad and capacious relation of VP-sufficiency that had to be put in place to see all of logical, modal, and normative vocabularies as making explicit features of the use of ordinary vocabularies, thus redeeming a promissory note that has been outstanding since my second lecture.

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relations between normative and modal vocabularies⁴ is a way of thinking analytically both about discursive intentionality (the kind that involves distinctively *semantic* relations), and about the relation between what one who engages in a discursive practice *does* and what she *says about* the objective things she thereby represents or talks about.

In the meaning–use diagram shown in Figure 6.1, the sub-practices of the autonomous discursive practice that are labeled ‘subjective–normative’ and ‘objective–modal’ are to be identified as those picked out by the dual conditions that they are the practices-or-abilities from which practices PV-sufficient for the introduction of deontic normative vocabulary (or, respectively, alethic modal vocabulary) can be elaborated, and the practices-or-abilities which are made explicit by that vocabulary in the sense that it is VP-sufficient to specify them. In this way, the complex, resultant meaning–use relations they stand in are used to dissect out what then show up as components of autonomous discursive practices. How might we think about the aspects of discursive practices that are picked out in this way by the dual LX-ness conditions in terms of which the *use of normative and modal* vocabularies is analyzed?

In the senses in which I have been using the terms, a creature’s practical engagement with its world exhibits *practical intentionality* insofar as it is feedback-governed, that is, specifiable (in a sufficiently rich vocabulary) as having an algorithmic TOTE structure in which each cycle is mediated by its differential responses to the effects of its own performances. Specifying the behavior of a system in such terms is taking or treating it as practically *directed toward* the features of its environment that play a suitable dual

⁴ Put somewhat more carefully, I explore here an intimate sort of connection between (some) deontic modalities and (some) alethic modalities. Only ‘some’ in the first case, because (for instance) *moral* normativity can also be put in deontic terms, and I am only addressing the *conceptual* variety of normativity: norms governing the application of concepts. And only ‘some’ in the second case because the alethic modalities (necessities and possibilities) I am discussing are not, or are not restricted to, metaphysical necessities in the Kripkean sense. They include those involved in laws of nature supporting counterfactuals that may not be metaphysically, but only physically, necessary. And they include other conceptual necessities such as those involving the incompatibility of color and shape properties that are harder to pin down. (I take it that it is a *geometrical*, rather than a *physical* fact that being rectangular and being circular are incompatible properties of plane figures. And it is not clear how to characterize the incompatibility of *red* and *green*.) The kind of alethic modality (because the kind of modal incompatibility) I am after cuts across a lot of the usual categorizations, because it is in play wherever material inferences have a range of counterfactual robustness. Any such range corresponds to a judgment as to what is and what is not *possible*, in the sense that matters for the kind of *semantic contents* I am concerned to think about vocabulary as expressing.

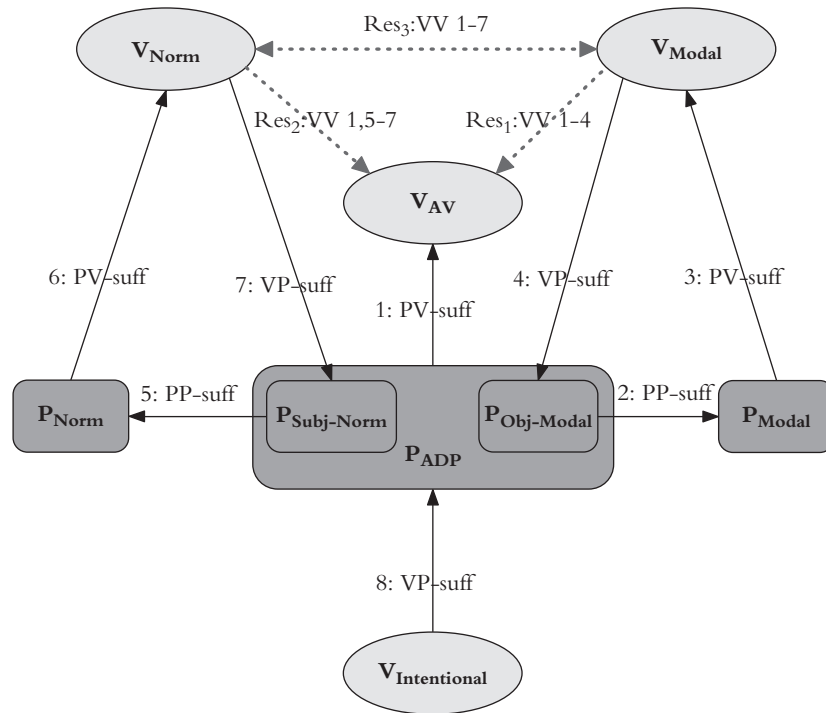


Figure 6.1 Analyzing or dissecting discursive practices into subjective-normative and objective-modal components

role in the reliably covarying causal chains of events that serve as both inputs to and outputs from the system that engages in a process with this structure. Such a system counts as exercising *discursive* abilities, or engaging in discursive practices, hence as exhibiting specifically *discursive* intentionality, insofar as the differential responsiveness of the system to the results of its own performances is essentially mediated by states whose functional role in the feedback process can be understood only by taking them to be *propositionally* contentful, that is, by specifying them in an *intentional* vocabulary—paradigmatically as involving the claim, belief, preference, or intention that *p*, where ‘*p*’ is a declarative sentence in the VP-sufficient intentional vocabulary specifying the practices-or-abilities in question (which may or may not be a sub-vocabulary of the autonomous vocabulary being deployed). I have been conducting this investigation within the scope of the assumption that a necessary element of that requirement is that the process that mediates between differential sensitivity

to the effects of prior performances and differential dispositions to produce subsequent performances—between testing and operating in the TOTE cycle—be governed by and exhibit sensitivity to norms articulating relations of material incompatibility and inferential consequence. Sensitivity to the applicability of such conceptual norms is manifested in the way the system *updates* its beliefs, preferences, and intentions, thereby moving from one functional state to another, during the process of its engagement with its environment. At the beginning of Lecture 5 I pointed out how the deontic normative vocabulary of ‘commitment’ and ‘entitlement’ could be used to codify many of the different kinds of material inferential and incompatibility *relations* that structure these inferential *processes*, *practices*, or *activities*.

The next question, then, is how the sort of directedness at objects via feedback engagement with them that is characteristic of *practical* intentionality, turns into something intelligible as *representation* of those objects when the process of practical engagement takes the form of deontic updating structured by material *inferential* and *incompatibility* relations, that is, when it becomes *discursive* intentionality. Answering that question is beginning to work out the pragmatist’s order of semantic explanation. Telling that story requires saying how, within the discursive realm, representational ‘of’-intentionality is related to expressive ‘that’-intentionality, that is, how what one is talking *of* or *about* (representing) is related to what one *says*, of or about those things. And doing that will enable us to get clearer about the nature of the intimate relation between what it is about our practice of *saying* that is made explicit by *normative* vocabulary and what it is about what is *said* that is made explicit by *modal* vocabulary—which is my suggestion as to how to pursue the pragmatist explanatory aspiration: by describing a complex, resultant meaning–use relation between these vocabularies that offers yet a further way (beyond those considered in Lectures 4 and 5) of filling in and following out Sellars’ dark but suggestive remark that “the language of modality is a ‘transposed’ language of norms.”

3 Discursive representation and rational rectification

Consider a non-autonomous vocabulary, a language fragment, centered on the use of the term ‘acid’. In the toy practice I am envisaging, if a liquid

tastes sour, one is committed and entitled to apply the term ‘acid*’ to it. And if one is committed to calling something ‘acid*’, then one is committed to its turning phenolphthalein blue. I imagine that the community using this term displays wide agreement, under concurrent stimulation, concerning what things are sour and what things are blue, and has experts certifying some vials as containing phenolphthalein. In using the term ‘acid*’ with these circumstances and consequences of application, the community is implicitly endorsing the propriety of the material inference from a liquid’s tasting sour to its turning phenolphthalein blue. If a practitioner comes across a kind of liquid that tastes sour but turns phenolphthalein red, she finds herself with commitments that are materially incompatible, by her own lights. For she infers from its sourness that it is an acid*, and from its being an acid* that the phenolphthalein solution to which it is added is blue. But exercising her reliable differential responsive dispositions directly, she non-inferentially acquires an incompatible observational commitment to the phenolphthalein solution being red. She cannot be entitled to both. Inferential expansion of one observation has led to a commitment incompatible with another. To repair that incompatibility (to update her commitments), she is obliged either to relinquish the claim that the liquid tastes sour, or to relinquish the claim that phenolphthalein solution is red, or to revise her concept of an acid* so that it no longer mediates the inference that caused the problem—perhaps by restricting its applicability to *clear* liquids that taste sour, or by restricting the consequence to turning phenolphthalein blue when the liquid is heated to its boiling point. Entitling oneself to any of these moves involves further commitments it may not be easy to entitle oneself to, and none of them may ultimately be successful. But in any case, something has been learned.

This little parable of one cycle of practical operating and testing involves discursive updating of three basic types: expanding one’s observations by drawing commitment- and entitlement-preserving inferential conclusions; registering any resulting materially incompatible commitments; and repairing them by modifying or relinquishing some of those commitments, or the concepts that link them inferentially. Those inferential links between observational concepts, whose applicability can also be elicited non-inferentially by the exercise of reliable differential responsive dispositions, engender the possibility of *friction* between the world and the deployment of vocabulary in a practical cycle of perception-and-performance articulated by those

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material inferential and incompatibility relations.⁵ In the context of the set of practices-and-abilities I described, the world, by presenting a liquid that tastes sour and turns phenolphthalein red, is telling our imaginary community that it cannot have the concept acid* with the original circumstances and consequences of application. For what has been revealed is that, contrary to the material inference curled up in that concept, it is *not necessary* that sour liquids turn phenolphthalein blue. It is *possible* that a liquid both be sour and turn phenolphthalein red. Where enough discursive updating TOTE cycles of this sort have been engaged in to produce a relatively stable and successful discursive practice, objective facts about what actually follows from and what is incompatible with what, will have been incorporated in the material inferences and incompatibilities that articulate the concepts expressed by the vocabulary deployed according to the practical norms implicit in that practice. This essentially holistic process involves getting on to how things objectively are not just by making true claims, but also by acknowledging the right concepts.

We see here in microcosm a pivotal relation between what is expressed by the use of *normative* vocabulary to codify central features of the inferentially articulated doings of knowing and acting discursive *subjects* and what is expressed by the use of *modal* vocabulary to characterize central features of the objective world they talk about and act in: its *laws*, what connections are *necessary*, what is really *possible*. When all goes well, the normative structure of consequential commitments and entitlements, including incompatibilities, tracks the modal structure of laws relating possible facts. Taking an inference to be a good one even in counterfactual circumstances by endorsing an appropriately modally qualified conditional is what one needs to *do* in order to *say that* a law holds objectively.

An essential part of what one is *doing* in committing oneself (doxastically or practically) to some claimable content is taking responsibility for *integrating* it into a whole constellation of such commitments, by following out the inferential consequences it has in the context of its fellows, and subjecting it to rational criticism by confronting it with any concomitant commitments that turn out to be materially incompatible with it. Engaging in that fundamental sort of discursive activity is what Kant called “synthesizing the

⁵ A useful pragmatist perspective is provided by Huw Price’s “Truth as Convenient Friction,” *Journal of Philosophy*, 100 (2003), 167–90. Also in Patrick Grim, Gary Mar, and Peter Williams (eds.) *The Philosopher’s Annual*, vol.26 (Ridgeview Publishing, 2003).

transcendental unity of apperception.” Apperception is discursive (that is, conceptually articulated) awareness: undertaking commitments whose contents can be specified by declarative sentences. The *unity* of those discursive commitments is a *normative* unity: a matter of taking responsibility for one’s commitments by acknowledging what else they commit and entitle one to, and what other contents to which one may initially be committed they preclude entitlement to. Discursive updating aims at the material inferential completeness and compatibility of one’s commitments, in the normative sense that insofar as one falls short of those ideals, one is normatively obliged to *do* something about it, to repair the failure.

The point I want to focus on, however, is that the account of feedback loops of perception-and-performance normatively governed by relations of material inference and incompatibility is a pragmatic version of Kant’s account of synthesizing a *transcendental* unity of apperception. In his terminology, transcendental logic is distinguished from general logic by its concern with the *content*, rather than just the *form*, of judgments. And that content is understood in terms of *representation of objects*. Now, I have urged that an essential element of the propositional contentfulness expressed by declarative sentences and attributed by ‘that’-clauses in ascriptions of intentional states using vocabulary such as ‘claims that’ and ‘believes that’ consists in those contents standing in material inferential and incompatibility relations to one another. And these are the very relations that normatively govern the discursive updating process I have lined up with Kant’s notion of synthesizing a transcendental unity of apperception. But what, we may ask, makes the unity in question deserve to be called *transcendental*, in a sense that invokes representation of objects?

The answer lies in the way in which acknowledging material inferential and incompatibility relations essentially involves representing objects as having properties (perhaps complex relational ones) that stand in corresponding relations to one another. In drawing inferences and ‘repelling’ incompatibilities, one is taking oneself to stand in representational relations to objects that one is talking *about*. A commitment to *A*’s being a dog does *not* entail a commitment to *B*’s being a mammal. But it *does* entail a commitment to *A*’s being a mammal. Drawing the inference from a dog-judgment to a mammal-judgment *is* taking it that the two judgments represent one and the same object. Again, the judgment that *A* is a dog is not incompatible with the judgment that *B* is a fox. It *is* incompatible with the judgment that

A is a fox. Taking a dog-judgment to be incompatible with a fox-judgment *is* taking them to refer to or represent an object, the *one* object to which incompatible properties are being attributed by the two claims.

Representational purport is accordingly an integral feature of the process of practically acknowledging material inferential and incompatibility relations that is discursive updating. It involves a kind of *triangulation* on the object represented that is evidently the discursive, theoretical culmination of a progression that begins with the way physical objects are incorporated in feedback-governed practical engagements with things. The most basic sort of practical triangulation on objects happens when the *result* of one responsive performance is itself the *stimulus* eliciting a further response—as, for instance, with the nail one hits with the hammer, perceives the effect on, and then responds to anew by hitting it again, until it is driven flush. (And an analogue of this feature of hammering is evidently also exhibited in the case of screwing.) The next level of triangulation includes both the practical exercise of reliable differential responsive dispositions and relations of material inference-and-incompatibility, and depends on their interaction. It might be epitomized by the way the one liquid observed both to taste sour and to turn the phenolphthalein red is caught up in the toy practice of using the term ‘acid*’ I sketched above. The next level dispenses with the immediate involvement of practical responsiveness entirely, as in the purely inferential-and-incompatibility relations among the concepts dog, mammal, and fox. These forms of triangulation begin with purely practical incorporation of something objective in a feedback-governed process, and end with purely theoretical objective representational purport. **The triangulation that consists in acknowledging material incompatibilities and inferences is, in a nutshell, how the normative demand for a rational unity of apperception (judgments) makes intelligible representational purport: what it is to take or treat judgments in practice as representing or being about objects.** Together, the different stages in this progression illustrate both how *discursive* intentionality is rooted in and grows out of *practical* intentionality, and how, within the discursive realm, *representational* ‘of’-intentionality is inseparably related to *expressive* ‘that’-intentionality—indeed, is intelligible in terms of it, by means of a pragmatically mediated semantic relation.

Expanding commitments inferentially, noting and repairing incompatibilities—the ampliative and critical dimensions, the inhalation and

exhalation of living discursive activity—*is* synthesizing a normative *rational* unity of apperception, for it is treating one's commitments as *reasons* for and against other commitments. And we have seen how doing that is the endless production and reproduction (at once practical and ideal) of a unity (a holistic rational *system* of commitments) that is *transcendental* in Kant's sense, in that it is the process that institutes *representational* relations. Acknowledging the rational critical responsibility implicit in taking incompatible commitments to oblige one to *do* something, to update one's commitments so as to eliminate the incompatibility, is what one must *do* in order in practice to be taking oneself to be talking *about* or representing things, in the normative sense of making oneself responsible *to* them for the correctness of one's claims and the success of one's actions (the fulfillment of one's intentions, the satisfaction of one's desires).

Discursive intentionality of both sorts, 'that'-intentionality and 'of'-intentionality—indeed, as we can now say, discursive intentionality along both of its inextricably intertwined expressive and representational dimensions—is the paradigmatic *semantic* phenomenon. I have been rehearsing some of the ways in which it can be seen to be a *pragmatically mediated* semantic phenomenon by looking at some of the things one must *do*—the practices one must engage in, the abilities one must exercise—in order to say *of* something *that* it is thus-and-so. Of course, in some sense no one ever doubted the general semantic pragmatist claim: what else but the way it is *used* could make a vocabulary *mean* or *represent* something? But the analytic pragmatist is interested in saying in detail in other (VP-sufficient) terms what one must *do* (what is PV-sufficient) to count thereby as saying or representing something. And the claim that one cannot understand what semantic relations *are* except by understanding the practical processes and activities by which they are instituted (a sort of pragmatic sense-dependence claim) has not always been thought to be a truism (or even just to be true).

4 Two senses of 'incompatible'

The most surprising claim I have made here is that a special insight into the nature of semantic intentional relations and their relation to the discursive practices of rational amplification and rectification (normatively governed respectively by material inferential and incompatibility relations)

that establish and maintain them can be gleaned by looking at complex resultant, pragmatically mediated meaning–use relations between *normative* and *modal* vocabularies. As we have seen, this claim is the final move in a way of working out a pragmatist order of semantic explanation that we can think of as involving four sequential steps. First is the idea that the most basic form of intentionality is feedback-governed practical transactions: TOTE cycles of differential response and response to the effects of the response. To understand a process as having this structure is to take it to be algorithmically decomposable, that is, specifiable as the algorithmic elaboration of more basic differential responsive capacities (a special kind of PP-sufficiency relation). To do that is to specify it in terms of some more basic abilities and the way algorithmic elaborative capacities are deployed to implement the more complex ability (a special kind of VP-sufficiency relation). (This is a very basic kind of *functionalism*—functionalism about practical intentionality—which we have seen to be integral to the pragmatist version of the program of artificial intelligence.) The second move is to understand specifically *discursive* intentionality, the kind that institutes *semantic* relations, as a species of such feedback-governed practical engagement in which performance and response are mediated by relations of material inference and incompatibility. The third stage in this progression is then the claim that, instead of thinking of the intentional nexus to begin with in terms of relations of a distinctive kind (‘semantic’) between *things* that we can in principle characterize antecedently to and independently of their semantic relation, representeds and representings (as Fodor puts it, horses and ‘horse’s), we think rather of two dimensions abstracted from or brought into relief within such a feedback-governed process of practical engagement, mediated by discursive relations of material inference-and-incompatibility. It is this line of thought that is then supposed to be completed by appeal to the features of such discursive practices that are made explicit by the normative and modal vocabularies that can be elaborated from those practices.

To fill in this last idea, I want to focus on the notion of material incompatibility that I have argued is implicit in discursive practice and which, each in its own way, both alethic modal and deontic normative vocabulary make explicit. As I have been telling the story, developing the meaning–use analytic pragmatist approach to semantics requires appeal to two different senses of ‘incompatibility’, which turn out to be related in a surprising

and revealing way. One is an objective *modal* sense: a matter of what states of affairs and properties of *objects* actually are incompatible with what others, in the world as it is independent of the attitudes of the knowing-and-acting subjects of practical, feedback-governed transactional engagements. If being made of pure copper is in this sense objectively incompatible with being an electrical insulator, then nothing can be both at the same time: it is *impossible* for one and the same object simultaneously to have both properties. That is a fact that holds regardless of how we use the *words* ‘copper’ and ‘insulator’—indeed, it was a fact before there were any deployers of vocabulary at all. When, in the previous lecture, I showed how the concept of incompatibility could be used as the basis of a formal semantics capturing important features of the meanings of linguistic expressions, both logical and non-logical, this is the sense of ‘incompatibility’ that that semantic metavocabulary employed. The other sense of ‘incompatible’ is *normative*, and concerns *commitments* on the part of knowing-and-acting *subjects*—the ones who engage in discursive practices and exercise discursive abilities. To say that two commitments (whether doxastic or practical) are incompatible in this sense is to say that one cannot be *entitled* to both, and so that if one finds oneself with such commitments, one is *obliged* to *do* something: to rectify or repair the incompatibility, by relinquishing or modifying at least one of those commitments (to enter into a process of updating, of rectification, of further synthesizing a rational unity). What is incompatible with what in this sense is a matter of the practices and attitudes of the subjects of those commitments: the norms implicit in their behavior, what they in practice *take* or *treat* as incompatible in acknowledging and attributing the deontic statuses of commitment and entitlement.

The first point I want to emphasize is that these are clearly *different* notions of incompatibility. It is *impossible* for one and the same *object* to have incompatible *properties* at the same time. But it is merely *impermissible* for one and the same *subject* to have incompatible *commitments* at the same time. We *can* undertake such commitments. It is not impossible to do so. Indeed, we do it all the time—albeit usually involuntarily. When we do, the consequence is a change in *normative* status: we are not *entitled* to the incompatible commitments, and so are obliged to *do* something to rectify the situation. But we may not *actually* do what is in this normative sense demanded of us, or even practically be *able* to do it. We are discursively

born into a state of sin, and, for all our conscientious efforts, are by and large doomed to live in such a state. If p and q are incompatible in the *alethic modal* sense, then it is necessary that not (p and q). But if p and q are incompatible in the *normative deontic* sense, then it is indeed required that one not be *committed* to (p and q), in the sense that one *ought* not to be, but it does not at all follow that one *cannot* be, or is *in fact* not so committed. The sort of looseness of fit between what is necessary or required in the deontic normative sense and what is possible or actual is not even intelligible in the alethic modal sense of ‘necessity’.

It is worth noticing that these two senses of ‘incompatible’ are interdefinable with the two poles of the intentional nexus: knowing and acting *subjects* and the *objects* towards which their cognitive and practical states are directed. For (suppressing for present purposes the relativity to times⁶) objects are individuated by the way they ‘repel’ incompatible properties. It is *not* impossible for *two different* objects to have incompatible properties—say, being copper and electrically insulating. What *is* impossible is for *one and the same* object to do so. Objects play the conceptual functional role of *units of account for alethic modal incompatibilities*. A single object just *is* what cannot have incompatible properties (at the same time). That is, it is an essential individuating feature of the metaphysical categorical sortal metaconcept object that objects have the metaproperty of *modally* repelling incompatibilities. And, in a parallel fashion, subjects too are individuated by the way they normatively ‘repel’ incompatible commitments. It is not impermissible for *two different* subjects to have incompatible commitments—say, for me to take the coin to be copper and you to take it to be an electrical insulator. What is impermissible is for *one and the same* subject to do so. Subjects play the conceptual functional role of *units of account for deontic normative incompatibilities*. That is, it is an essential individuating feature of the metaphysical categorical sortal metaconcept subject that subjects have the metaproperty of *normatively* repelling incompatibilities. A single subject just *is* what *ought* not to have incompatible commitments (at the same time).

These considerations show that although, as I have emphasized, the alethic and deontic senses of ‘incompatible’ are quite different, they are

⁶ We may think of the time-references as built into the properties whose incompatibilities are being considered.

intimately related to one another. We are not faced with a term that is just ambiguous; the two uses of the word are not mere homonyms. Further, the relation between ‘incompatibility’ in the normative sense and ‘incompatibility’ in the modal sense is an expression of deep structural features of the nexus of intentionality: the nature of its *subjective* and *objective* poles and of the relation between them. What relates the two senses is a *process*, a practice, the exercise of an ability, a kind of practical *doing*: what discursive subjects are obliged to *do* when they find themselves acknowledging incompatible commitments—perhaps, as in the story about *acid**, some acquired inferentially and some non-inferentially. *What* one is obliged to do is to *rectify* the incoherent commitments, by relinquishing one of the offending commitments, or, as in that example, modifying a mediating inferential commitment (and hence a concept). This updating is “repelling incompatibilities” in the normative sense. That objects “repel incompatibilities” in the modal sense is simply a fact: a *relational* fact metaphysically constitutive of objects as such. But subjects’ repelling of incompatibilities is a *process*, an *activity*, a *practice*, the exercise of an *ability*. It is something they actively *do*. That they are *obliged* to do it is a fact metaphysically constitutive of subjects as such.

Here is the key point. By doing that, by engaging in the practice of rectifying commitments, subjects are at once *both* taking or treating the *commitments* involved as incompatible in the *normative* sense of obliging them to do something about that collision, *and* taking or treating two *states of affairs* regarding *objects* as incompatible in the *modal* sense that it is impossible for both to obtain. These are, I repeat, quite different senses of ‘incompatible’. But in practically acknowledging an obligation to rectify or repair a set of commitments, one is doing something that can be specified not just by using one or the other, but, crucially, by using *both*. That it *can* be specified in both ways, both in normative terms and in modal terms, is what it is for the vocabulary whose use is being rectified to have semantic intentional *content*, for its deployment to count as *representing objects* and *saying of* them *that* they are objectively thus-and-so, for it to be the kind of *process* that establishes representational *relations*.

The basic phenomenon that underlies the complex meaning–use relations detailed in Figure 6.1 is accordingly the substructure shown in Figure 6.2.

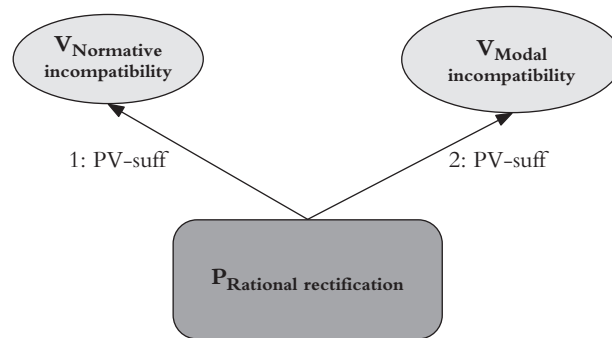


Figure 6.2 Rational rectification = treating commitments as normatively incompatible = treating properties as modally incompatible

Engaging in the practice of rectifying one's commitments is entering into a TOTE cycle whose exit condition is the removal of a local material incoherence in one's commitments, cognitive or practical. Practically acknowledging a commitment to that in some particular case is treating the commitments involves as discordant both in the sense that they are *normatively* incompatible for a *subject* and in the sense that they involve attributing *modally* incompatible properties to an *object*. We already saw that treating two (basic, non-quantificational) claims as incompatible is taking them to refer to one and the same object (as is taking them to be related as premise and conclusion of a material consequence relation). We are now in a position to see this fact as an aspect of a more general one. Shouldering the responsibility of repair and rectification of incompatible commitments is what one has to *do* in order to be taking one's claims to be *about* an objective world, in the normative sense of granting it *authority* over the *correctness* of one's claims. In treating two commitments as incompatible in the sense of *normatively* requiring giving up at least one of them (or otherwise modifying them so as to render them materially compatible) one is treating them both as claims *about* objects (about at least some of the *same* objects) and as *incorrect* about those objects because they attribute to them *modally* incompatible properties. That is what *subjects* must *do* in order thereby to be treating the vocabulary they deploy in acknowledging the commitments in question as expressing objective contents: claims about the properties (usually complex relational properties) of *objects*.

What we might think of as an *objectivist* semantic order of explanation begins with the way the world objectively is—construed here as a matter

of what really follows from what and what is really incompatible with what in the alethic modal sense. This conception is then taken to define the goal of inquiry, which accordingly determines a norm for the process of commitment-revision, according to an instrumental model. One ought to revise one's commitments so as more closely to approach the goal of practically *taking* commitments to stand in material incompatibility or consequence relations just in case the states of affairs and properties they represent objectively do stand in such relations to one another. This is what the subject is obliged, as a knower and an agent, to *try* to do. That ideal consilience of subjective *normative* attitude and practice, on the one hand, and objective *modal* fact, on the other, sets the standard for assessing the process of commitment revision. It is the "image of language triumphant" that process "draws within language militant", as Sellars puts it.⁷ That never-reached but always-*efficacious* functional ideal is inscribed within the essentially *discursive* process of rectification and amplification by being the exit condition of a *practical* TOTE cycle that is mediated by relations of material incompatibility and consequence.

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A complementary order of semantic explanation, by contrast, begins with what discursive practitioners actually *do*, that is, with the practical discursive process of rectifying and amplifying their commitments. It seeks to make the notion of objective modal relations intelligible in terms of this process, via pragmatically mediated semantic relations—relations of sense-dependence, not of reference-dependence, since the modal facts would be largely as they are whether or not anyone engaged in discursive practices. We have seen how normative talk of commitment and entitlement, and of the sort of incompatibility of commitments definable in terms of them, can serve as a pragmatic metavocabulary saying what subjects must *do* in order to be taking or treating two properties as objectively incompatible—as incompatible in the full-blooded modal sense that can then be understood as providing a second-order norm for assessing normative relations among commitments and entitlements. For that representational semantic normativity is implicit in the fact that rectifying one's commitments so as to eliminate *acknowledged* incompatibilities among them (discursive updating) is at once *both* treating two *commitments* as incompatible in the *normative* sense of obliging subjects

⁷ In the final paragraph of "Counterfactuals, Dispositions, and Causal Modalities," in H. Feigl, M. Scriven, and G. Maxwell (eds.), *Minnesota Studies in the Philosophy of Science*, vol. 2 (University of Minnesota Press, 1957), 225–308.

to *do* something, and treating two *properties* as incompatible in the objective *modal* sense.

So, in the most general terms, the objectivist order of semantic explanation proceeds from objective modal relations, via semantic normativity, to subjective normativity, and a complementary order of semantic explanation—what we might call “subjective pragmatism”—proceeds from the subjective normativity displayed in the practical activity of amplifying and rectifying acknowledged commitments, and seeks to understand in terms of that activity both objective modal relations and the semantic normativity (revealed as pragmatically mediated) that links them to subjective normativity.

The view I am recommending is inspired by the insights of what I have called “subjective pragmatism”, but—as the symmetry of the meaning–use diagram I presented as expressing the complex resultant meaning–use relations between alethic modal and deontic normative vocabularies indicates—rejects its one-sidedness in favor of a more even-handed understanding. Rather than simply turning the objectivist order of explanation on its head, what I want to call “objective pragmatism” about intentionality sees those features of discursive practice that are made explicit by modal vocabulary and those that are made explicit by normative vocabulary as complementary, as each in principle fully intelligible only in terms of its relation to the other. Its understanding is, as the slogan that forms the title of this lecture has it, that discursive intentionality is a *pragmatically mediated semantic relation* that essentially involves both what one is *doing* in *saying* something, and what is *said* about how it is with what one is thereby talking *about*.

In this lecture I have principally been concerned to show how the practical activity of rectifying commitments by removing incompatibilities provides a perspective from which *deontic normative* and *alethic modal* vocabulary show up as two sides of one coin, as making explicit essentially complementary aspects of what then becomes visible as an intentional nexus semantically connecting knowing and acting *subjects* with the *objects* they know about and act on. This is the activity (the practice, the process) that *pragmatically mediates* the semantic relations characteristic of discursive intentionality. There is obviously a great deal more that could be said about the relations between the complementarity of these uses of normative and modal vocabulary and semantic intentionality, and about how to

understand semantic and representational *relations* in terms of the *processes* or practices that institute or establish them. My purpose here has been just to open up the topic in such a way as both to give some definiteness to the suggestion that discursive intentionality itself should be thought of as a pragmatically mediated semantic relation, to show how that relation can be understood as instituted by the pragmatic process of rectifying and amplifying commitments, and so to indicate some of the ways in which it may prove fruitful to think of intentionality in the terms of the analytic pragmatism that animates and is expressed in meaning–use analysis.

5 Conclusion

I took the overall title for this lecture series from an Italian proverb: “Between saying and doing, many a pair of shoes is worn out.” I want to close with a brief reminder of some of the shoes I have been wearing out (perhaps along with your patience). I began with a picture of twentieth-century philosophical analysis that presents it as a tradition unified by a distinctive semantic project: systematically to explore different kinds of logical relations between the meanings expressed by different kinds of vocabularies. It is this semantic logicism that I see as distinguishing the various twentieth-century versions of the programs of empiricism and naturalism from their Enlightenment predecessors, and as making possible a third characteristic core program of analysis: functionalism in the philosophy of mind. My concerns in these lectures have been framed by the confrontation between this analytic semantic tradition and a kind of radical pragmatism, epitomized by (but by no means restricted to) the later Wittgenstein, which sees theories of *meaning* as in principle bad ways of thinking about the *use* of linguistic expressions—as resulting from intellectualist or scientific misconceptions concerning the nature of discursive understanding. In its strongest form, the pragmatist challenge rejects the very possibility of general, systematic semantic analysis, leaving room only for a kind of local therapeutic pragmatics: diagnosis and treatment of misunderstandings of features of the use of particular expressions that are the residue of uncritical theoretical philosophical commitments.

But we need not choose between analyzing meaning and describing use. I have offered a number of suggestions as to how the insights of these two

traditions can be synthesized. One consists in showing how the vocabulary of automaton theory can be generalized to serve as a tool for analyzing practices-or-abilities, by specifying some as algorithmically decomposable into others, from which they can be algorithmically elaborated. I made two principal claims concerning this sort of purely pragmatic formal analysis. The first is that the fact that, as I claim, practices *sufficient* to deploy *logical* vocabulary can in this sense be algorithmically elaborated from practices *necessary* for the deployment of any autonomous vocabulary vindicates in a novel way the privileged position that logical vocabulary is accorded in the classical project of philosophical analysis. The second is that the pragmatic core of the artificial intelligence version of the program of functionalism should be understood to consist not in a thesis about the ultimately *symbolic* nature of sapience, but rather in the claim that autonomous discursive practices can be algorithmically elaborated from practices-or-abilities each of which can be engaged in or exhibited by non-discursive creatures. There are clearly many more kinds of important practical PP-sufficiency and -necessity relations. I pointed in particular to what I called “practical elaboration by training” (including “unsupervised” learning), and made a few suggestive remarks about issues that arise when we consider the combination of this with algorithmic elaboration, in the form of *pedagogical algorithms*.

Besides these kinds of purely pragmatic analyses of doings, I introduced the idea of a kind of analysis of the relations between saying and doing: what I called “meaning–use analysis.” This is a way of representing and articulating the relations between meaningful vocabularies (along the way I’ve discussed logical, indexical, observational, modal, normative, and intentional vocabularies) and the practices-or-abilities of deploying them that constitute the *use* in virtue of which they *mean* what they do. To the sort of practical PP-sufficiency of one set of practices-or-abilities for another that obtains when one set can be algorithmically elaborated into another, meaning–use analysis adds two other important basic meaning–use relations: the PV-sufficiency of a set of practices-or-abilities to *deploy* a vocabulary, and the VP-sufficiency of a vocabulary to *specify* some set of practices-or-abilities. Composing these basic meaning–use relations allows us to exhibit more complex relations among vocabularies and practices (meanings and uses) as *resultants* of constellations of the basic ones. One simple but important example is the relation of one vocabulary being a *pragmatic metavocabulary* for another. It holds when one vocabulary is

VP-sufficient to specify practices that are in turn PV-sufficient to deploy another vocabulary. This is the simplest kind of *pragmatically mediated semantic relation*. It can happen that the expressive power of a pragmatic metavocabulary might differ substantially from that of the vocabulary it lets us say what we must do to deploy. This is the phenomenon I called “pragmatic expressive bootstrapping.” For instance, we saw that it can be proven that automata PV-sufficient to deploy all recursively enumerable vocabularies can be specified in context-free vocabularies. And I argued that a non-indexical pragmatic metavocabulary can be VP-sufficient to specify practices PV-sufficient to deploy an indexical vocabulary.

In those two cases, the pragmatic metavocabulary is strictly expressively *weaker* than its target vocabulary. Sometimes the two simply have *different sorts* of expressive power. The big theme of the second part of my lectures has been the relations between *modal* and *normative* vocabularies, and of both to the autonomous discursive practices we attribute by the use of *intentional* vocabulary. In this connection I made five large claims:

1. First, I argued that a suitably chosen normative (deontic) vocabulary (of commitment and entitlement) can serve as a sufficient pragmatic metavocabulary for alethic modal vocabulary. That is, we can explain what one must *do* in order to be deploying the objective modal notion of incompatibility in terms of the normatively specifiable notion of claimings that are incompatible just in case *commitment* to one rules out *entitlement* to the other.
2. Second, I showed how the notion of incompatibility introduced that way can be used as the basis of a *semantic* metavocabulary, in terms of which we can define both *logical* and *modal* operators, and also represent important aspects of the contents of non-logical concepts.
3. Third, I argued for what I called the “Kant–Sellars theses” (which constitute the first half of the complex resultant expressive property of vocabularies I called “universal LX-ness”): as is the case with logical vocabulary, practices-or-abilities PV-sufficient to deploy both alethic modal and deontic normative vocabulary can be algorithmically elaborated from practices PV-necessary for deploying any autonomous vocabulary.
4. Fourth (which is the other half of the universal LX-ness of these vocabularies), I pointed out that normative and modal vocabularies

each make explicit (a matter of the VP-sufficiency of a vocabulary to specify practices-or-abilities) important aspects implicit in (PV-necessary for) the use of any autonomous vocabulary.

5. Finally, as we have just seen, those complementary aspects made explicit by normative and modal vocabulary correspond to the subjective and objective poles of the intentional nexus between what discursive practitioners *do*, their activity of claiming, and the objects, properties, and facts that they thereby count as *saying* something *about*. This shows what is required for *practical* intentionality to develop into *discursive* intentionality. And it exhibits discursive intentionality as a particular kind of *pragmatically mediated semantic* relation.

I am going to close with a dark, but I hope intriguing suggestion. I think the view Hegel is trying to express with his notorious assertion of the identity of subject and substance⁸ is that, conceptually, the normative sense of material incompatibility (his “determinate negation”) that applies to subjective commitments, and the modal sense of material incompatibility that articulates objective facts and properties, are two sides of the same coin, each intelligible in principle only in terms of the other, because the *activity* of taking or treating two *commitments* to be incompatible in the subjective normative sense just *is* what it is to take or treat two properties or states of affairs as incompatible in the objective modal sense. I think this pragmatically mediated semantic relation (which has nothing to do with any claim about the *causal* dependence of how things are on how anyone takes them to be) is the essence of the view he develops under the heading of ‘idealism’. But that is a story for quite another occasion.

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⁸ In the preface to the *Phenomenology* (1807, reprinted by Oxford University Press, 1979). Elsewhere (for instance, in the *Science of Logic* [1812–16, reprinted by Humanity Books, 1990]), he puts what I take to be the same point in terms of the identity of thought and being in what he calls the Idea.