

Part Two **Mediating the Immediate: The *Consciousness* chapters of the *Phenomenology***

Lecture 6:

‘Force’ and Understanding—From Object to Concept

The Ontological Status of Theoretical Entities and the Laws that Implicitly Define Them

Part One: From Force to Law

The thirty-four paragraphs of “Force and Understanding,” the third and final chapter of the *Consciousness* section of the *Phenomenology*, are among the most enigmatic, but also the most important, of the book. One puzzle that arises almost immediately concerns the topic of the first third of the chapter: What is *force* [Kraft]? For instance, if the Newtonian conception is intended, how is it that in the many pages devoted to the topic, its sister-concept mass does not need to be so much as mentioned? What motivates treating it as the central concept in the next stage in the developing self-understanding of empirical consciousness? More generally, how are we to understand the role of ‘force’ in the transition from consciousness understanding its empirical knowledge as having the structure Hegel calls “perceiving” to its understanding empirical knowledge as having the structure he calls “understanding”? One notorious, more localized, less structurally important hermeneutic speed-bump concerns the third (by my count) of the conceptions of a supersensible world that are canvassed in the middle third of the chapter: the Inverted World. This is a world where everything is the opposite of what it is in the actual world: what was sweet is sour, what was black is white, and so on. How is this even coherent? After all, a central point of the *Perception* chapter is the Aristotelian observation that no object can exhibit the opposite of every property had by some object. Even if it is intelligible, how does this bizarre conception arise out of consideration of the more familiar prior conception of a supersensible world that is the “calm realm of laws”? Perhaps most importantly, how should we understand the final understanding of the supersensible, which Hegel endorses, and how does it rationalize the major expository transition from *Consciousness* to *Self-Consciousness*, which is so important for understanding his idealism?

In *Perception*, we considered phenomenal empirical consciousness understanding itself as aware of a world of observable repeatables. Consciousness understanding itself as perceiving discovered that those repeatables differ from one another in two different sorts of way. Pairs of repeatables such as **red** and **square** are *compatibly* different; pairs of repeatables such as **square** and **circular** are *incompatibly* different. It turns out that acknowledging this difference between two kinds of difference implicitly involves thinking of the sense repeatables as observable *properties*, in a sense of ‘property’ that picks out an ontological category that contrasts with the ontological category of ‘object’. That is, the distinction between (sense) universals and particulars is implicit in the distinction between mere or compatible difference and exclusive or incompatible difference (Aristotelian contrariety, Hegel’s “determinate negation”). Objects or particulars are understood as playing the dual complementary roles of being the medium in which a set of compatibly different properties or universals are displayed, and as units of account that exclude incompatible properties or universals.

The restriction to *sense* universals, that is, to *observable* properties, as the form of knowable content is essential to the conception of empirical knowing Hegel calls “perception”. What is real is for it what is observable. Although error is intelligible, the observable properties that articulate how things really are can show up for or appear to the knowing consciousness just as they really are. This is how consciousness conceiving itself that way seeks to satisfy what in the discussion of Hegel’s *Introduction* I have called the “Genuine Knowledge Condition”: the requirement that consciousness’s understanding of itself not preclude in principle the possibility of its knowing things as they are “in themselves.”

Consciousness understanding itself as perceiving has come to realize that observing objectively real observable properties is not the only way to find out about them. Besides being noninferentially or immediately accessible through the senses, observable properties (those that can be immediately accessible) can on some occasions be accessible inferentially, in a way mediated by the immediate, noninferential accessibility of other observables. Even if I cannot now taste the apple, I might infer that it is sweet from the observation that it is red and therefore ripe. What is not sensuously immediately epistemically accessible can sometimes be mediately, that is inferentially, accessible.

Indeed, perceiving consciousness has learned a deeper lesson: *immediate*, sensuous, noninferential access to things is intelligible as delivering determinately contentful potential knowledge *only* in the context of the possibility of this *other* mode of access: mediated, inferential access. For the determinate contentfulness even of what is immediately accessible requires standing in relations of exclusion and inclusion to other such contentful items of possible knowledge. Those relations of exclusion and inclusion underwrite inferential connections among observable properties. In fact, consciousness understanding itself as perceiving has taken a step still further, and brought into view what shows up as a new kind of object of knowledge: what is *only* mediately accessible.

The opening sentence of *Force and Understanding* tells us that the result of the development of empirical consciousness understanding itself as perceiving has been to bring into view for the first time *unconditioned* universals.¹ Their advent ushers in the conception of thoughts, which are the contentful elements characteristic of the sort of conception of knowing Hegel (adapting Kant's term to his own use) calls "understanding." The first requirement on understanding this conception of knowing as understanding is accordingly making sense of the difference between the "conditioned" universals that were all the conception of knowing as perceiving could countenance, and the "unconditioned" universals the understanding traffics in. We have seen that perceiving consciousness acknowledges only *sense* universals. Hegel's talk here of "conditioned" universals accordingly refers to *sensuously* conditioned universals. Thought encompasses in addition sensuously *unconditioned* universals, that is, universals that are *not* observable. These are purely theoretical. Where perception acknowledged entities that could in principle be known in two ways, either by observation or by inference from observation, thought acknowledges also entities that can *only* be known inferentially. The broadening is from a class of things that are occasionally inferentially accessible to a class that includes also things that are *exclusively* inferentially accessible. The *only* way to know about theoretically postulated entities is by inference—ultimately, from something that is observable.

In allowing that observable properties can also sometimes be known about inferentially—by contrast to understanding empirical knowing according to the conception of sense certainty—consciousness understanding itself as perceiving put in play a second mode of epistemic access, in addition to noninferential observation. It is clear that this at least opens up space for, makes intelligible the idea of, entities that can *only* be known about by this second, inferential means—just as understanding empirical knowledge as sense certainty envisaged items knowable only by observation.

¹ In the dialectic of sense-certainty, hearing, seeing have become things of the past for consciousness, and as perceiving, it has arrived at thoughts, which it brings together for the first time in the unconditioned universal [unbedingt Allgemeinen]. [132]

But we can say something stronger. Empirical consciousness understanding itself as perceiving has not only provided itself with the conceptual raw materials needed to make intelligible the idea of unobservable theoretical entities. It has committed itself to their existence. For its intellectual progress from conceiving what is knowable empirically as having contents that would be expressed in a feature-placing language, as sense-certainty did, to conceiving what is knowable empirically as having contents that would be expressed in a term-predicate language (via the distinction between compatibly and incompatibly different contents) actually *commits* empirical consciousness understanding itself as perceiving to the existence of entities that are not immediately observable but are knowable only mediately, by inference. That is so because for it what is observable (and hence real, according to this way of thinking) is just sense universals, observable properties. The particular objects that have those properties are not themselves immediately observable. They are conceived as bare substrates, knowable in principle only indirectly, via their properties. They are in effect units of account for the compatibility of properties (the particular as the “also” of “indifferent matters”) and for the incompatibility of properties (the particular as the excluding “one”). It has turned out that a structurally necessary feature of a world containing observable properties that differ from one another in two ways, both compatibly and incompatibly, is that the *particulars* that exhibit *sense universals* are not themselves immediately knowable. Only their observable properties are. The particulars discovered by consciousness conceiving itself according to the categories of perception, that is, as knowing through perceptually taking in sense universals, are theoretical entities.

My first interpretive claim, then, is that the topic unearthed and bequeathed for investigation by perceiving consciousness is the nature and status of theoretical entities: unobservables that can only be known inferentially.² It is consideration of this topic that launches the transformation to a new understanding of empirical consciousness, not as *perceiving*, but as *understanding*: grasping thoughts. My second interpretive claim is that in Hegel’s discussion,

² In the introductory paragraph of *Force and Understanding* Hegel refers to “this unconditioned universal, which from now on is the true object of consciousness...” [132].

force stands in allegorically for theoretical entities generally. What is motivated by the considerations put in play in the *Perception* chapter is that more general topic. The consideration of “force” is a way of talking about the class of things that are only *inferentially* epistemically and semantically accessible. In the end, it is this fact that motivates the consideration of explanation, which is one of the topics of the middle third of the chapter on consciousness conceiving of itself as understanding.

As I read him, appreciating Hegel’s use of allegory in the *Phenomenology* is absolutely crucial to understanding what he is doing. So let me say something about this general trope, before specifically addressing this first instance of it. In a paradigmatic allegory, such as John Bunyan’s *The Pilgrim’s Progress*, the characters, places, and events in a narrative represent ideas or concepts (Hopeful and Goodwill, the Slough of Despond and Vanity Fair, the breaking of the straps that bind Christian’s burden to him, and seeing the Celestial City through a “perspective glass”). I think that at least the third through sixth chapters of the *Phenomenology* should be read as presenting *semantic* or *metaconceptual* allegories. I use these modifying adjectives to indicate that the lessons I think we should learn from the narratives Hegel presents concern semantic and metaconceptual concepts: the concepts we use to make explicit various ways of understanding the nature of determinate content, consciousness, self-consciousness, and rational agency. Figures such as the Master and the Slave, Stoicism, Skepticism, the Unhappy Consciousness, the Law of the Heart, the Frenzy of Self-Conceit, Virtue, and the Way of the World and the vicissitudes of the experiences through which they arise and develop are to teach us lessons about the concepts that philosophically articulate our self-consciousness.

On this way of reading the *Phenomenology*, it is of the first importance at every point in Hegel’s narrative to distinguish what is going on *within* the allegorical story being told from the philosophical points being made *outside* the allegory by telling that story. Nothing but confusion can result from running together these issues. The rest of this book furnishes many examples of the fruits I take it can be gleaned by carefully keeping track of this distinction: not only getting right the allegory in its own terms (what happens on the burdened pilgrim Christian’s journey, where he goes, who he meets, what he does), but also reading it *as* an allegory (what Bunyan is saying for instance about the importance of the Christian community for helping each individual believer deal with doubts, fears, and tribulations). This means extracting the larger lessons that are being conveyed, and where possible working to formulate them in more straightforward, non-allegorical terms.

In the case at hand, the allegorical story itself is set in the conceptual framework of Newtonian physics as formulated by Boscovitch and Kant.³ What their formulations have in common that matters for Hegel's story is eschewing appeal to the notion of mass in favor of repulsive forces associated with points resulting in impenetrability, those repulsive forces contending with the various more orthodox attractive forces. Reading the allegory properly, I am claiming, requires understanding force, the paradigmatic Newtonian theoretically postulated magnitude, as standing in allegorically for theoretical entities generally. A principal criterion of adequacy of this overarching hermeneutic commitment to reading the discussion of force as a semantic allegory addressing various ontological and epistemological issues concerning theoretically postulated entities is that it be possible to make sense of the narrative progression at the manifest level from force and its expression, to the doubling of forces, to the play of forces, and on to discovering law as the truth of the play of forces, not only as rationalized *within* the allegory, but as making sense in the more general case. This requires motivating and explaining the transitions *without* having recourse to features available only inside the allegory. In particular, for instance, it would grossly violate the constraints of this sort of reading to invoke the peculiarities of electrical forces as having two poles generating both attractive and repulsive forces, or the universality of the law of gravity, in explaining what Hegel is doing in his discussion of the doubling of forces or the consideration of the relation of universal laws to more determinate ones. The moves made under the headings of the "doubling of forces" and the "play of forces" must be understood so as to apply to genes and bosons, qua purely theoretical, that is, exclusively inferentially accessible kinds of things, as well as to literal forces. This is a tall order.

The Boskovitchian allegory as it first shows up has at its center the distinction between *force* and its *expression*.⁴ The thought is that force is not itself immediately observable. Its expression is what is immediately accessible through noninferential observation. In the allegory, gravitational force is not observable, but the accelerations it causes are. The presence and magnitude of the force must be inferred from its observable manifestations. A structure of this kind came into view already in the *Perception* chapter, with the thing of many properties. The ontological categorial conception of particulars as substrates of many sense-universals also envisages unobservables knowable only by inference from their observable manifestations. What the allegory of force and its expression is

³ Roger Boscovitch, in his 1758 *Theoria philosophiae naturalis redacta ad unicam legem virium in natura existentium* (*Theory of Natural philosophy derived to the single Law of forces which exist in Nature*), and Kant in his 1786 *Metaphysical Foundations of Natural Science*. Hegel echoes Boscovitch's title within his allegory, in his discussion of the relation of the "single law" to disparate determinate laws.

⁴ Since forces are, in fact, theoretical entities—though not the only ones—this allegory is also synecdoche: letting a part stand in for the whole ("The cattle herd numbered fifty head."). That is not true of all the rest of the semantic allegories of the *Phenomenology*, however.

allegorical for is the relation between purely theoretical, postulated entities and the observables on the basis of which those theoretical entities are inferentially accessible.

One of the main issues being addressed is the ontological status of those postulated, only inferentially accessible unobservable theoretical entities. (The distinction between particulars and universals, so important to perceiving consciousness, falls away as irrelevant to this larger question of the ontological status of unobservables of both categories.⁵) Until this point in the *Consciousness* chapters, reality has been identified with what is immediately, noninferentially observable. Empirical consciousness understanding itself as sense certainty sought to secure the possibility of genuine knowledge by restricting its knowledge claims not only to what could be taken in noninferentially, but to what did not at all depend for its content on inferential moves, which were thought of what introduces opportunities for error. Empirical consciousness understanding itself as perceiving has appreciated the incoherence of this last aspiration, and has realized that far from requiring immunity from the possibility of error, genuine knowledge and the intelligibility of error are two sides of one coin. Determinately contentful knowledge requires the application of concepts as universals, which stand to one another in relations of material incompatibility-and-consequence (exclusion and inclusion). Potentially risky, because falsifiable, inferential commitments to what else must be and cannot be the case are implicit in any commitment to an object actually exhibiting a property.

The restriction to *sense* universals by consciousness understanding itself as perceiving expresses a residual commitment to identifying what is real, how things are in themselves, with what is *observable*. Once the possibility of *unobservables* has been put in play, even in the form in which it arises for perceiving consciousness, namely as the particulars that serve as the medium for observable properties, perceiving consciousness's equation of the real with the observable shows up as of a piece with the twentieth-century scientific *instrumentalist's* unwillingness to countenance as real anything beyond the observable—anything “supersensible.” As we have seen, commitment to the reality of supersensibles is also implicit in understanding what there is in itself as having the ontological structure of the “thing with many properties.”

⁵ I take this to be the point of what would otherwise be the somewhat suspect move of assimilating particulars to universals as themselves being higher-order universals comprising the first-order universals that characterize them: using ‘universal’ as a genus that has as species both properties that unify the disparate objects they characterize and objects as unifying the disparate properties that characterize them. This latter is conceiving particularity as a “universal medium”.

Thus do we see perceiving consciousness turning into understanding consciousness when its implicit commitments are made explicit.

Allegorically reconstruing the structure that showed up for perceiving consciousness as that of unobservable objects with observable properties in terms of force and expressions of force opens a line of thought that leads, as an intermediate result, to the reversal of the instrumentalist ontological commitment that has been implicit in the ways empirical consciousness can understand itself that have been canvassed so far. The observable expressions of unobservable forces show up as appearances mediating inferential epistemic access to the underlying reality that is the forces expressed. What this is allegorical for is a kind theoretical realism that turns the prior view on its head, identifying the real as what underlies observable appearance, accessible only by making inferences from that appearance. Of this conception Hegel says “Our object is thus from now on the syllogism, which has for its extreme terms the inner of things and the understanding, and for its middle term has appearances.”⁶ What is observable is demoted from being the real to being mere appearance that is inferentially revelatory of supersensible reality.

This identification of reality with theoretical entities is what Arthur Eddington famously endorsed in contrasting his two tables: the solid, colored, unmoving perceptible table of the manifest image and the constellation of colorless charged particles whizzing about at great speed in largely empty space that he calls the “scientific table.” His verdict on their relation is clear. “I need not tell you that modern physics has by delicate test and remorseless logic assured me that my second scientific table is the only one which is really there - wherever “there” may be.”⁷ The observable table is a mere appearance. Now Hegel will in due course reject this invidious Eddingtonian theoretical realism. In the allegory, the expressions of force can be no less real than the forces they express. One result of the discussion of the play of forces is the total decoupling of the concept of appearance from that of observability. The whole play of forces is

⁶ [145].

⁷ From Arthur Eddington’s 1927 Gifford Lectures, published in 1928 as *The Nature of the Physical World* [MacMillan], pages ix–x.

itself unmasked as mere appearance, its observable and unobservable aspects alike. Nonetheless, ontologically privileging the supersensible inferential deliverances of theory over what is immediately sensuously observable plays a crucial role in the developing experience of empirical consciousness conceiving itself according to the conceptual categories of understanding.

Within the allegory, this line of thought begins with consideration of unobservable forces and their observable expressions. I have suggested how I think this initial bit of the allegory should be read. But what larger lessons about inferential accessibility and the status of theoretical entities are we to learn by reading the later stages of the allegory—in particular the doubling of forces and the move to the play of forces? Within the allegory, the issue concerns how we are to understand the unity of a force in view of the diversity of its expressions. This concern with kinds of identity that essentially involve difference has of course been with us from the beginning of the *Phenomenology*, from the structure comprising both repeatability-as-universality and diachronic-anaphoric repeatability in what would be expressed in feature-placing language in *Sense Certainty* to the intricate structure of universals and particulars retailed in *Perception*. It is this latter that Hegel appeals to when he first introduces the concept of force, to launch his allegorical discussion. That he does things this way means that there are *three* distinct conceptual levels intertwined at the beginning of his story: the one inherited from *Perception*, the allegory of force and its expression, and the extra-allegorical discussion of the ontological status of items that are only epistemically and semantically available inferentially, namely theoretically postulated entities.

The particulars that emerged from the experience of empirical consciousness understanding itself as perceiving themselves have a moment of diversity and a moment of unity or identity. The first is the particular as the medium of “merely indifferently different,” that is, compatible universals. As properties inhering in one object Hegel says metaphorically that they “reciprocally permeate” one another, without however “touching”, due to the “pure porousness” of their medium. The other moment is the particular as a unity, excluding the incompatible properties, possession of which distinguishes other particulars from it. The way in which the including unity is seen to consist in a diversity, and that diversity is seen to constitute a unity is, he says here, what is called ‘force’.⁸ In that idiom, the inclusive diversity of force is identified

⁸ All quotes here from [136].

with its expression, and its exclusive unity with “force driven back on itself”, or “genuine force.” The challenge is to understand both these aspects as equally essential to what force is:

In the first place, the force driven back into itself *must* express itself; and, in the second place, in that expression, the force is just as much the force existing *in itself* as it is that expression in this being-within-itself.⁹

Now we can ask: “What makes the expression of force diverse?” That is, why does it have *many* expressions? If they are indifferent to one another, as in the original model, what distinguishes them? Here Hegel invokes one of his overarching logical-cum-metaphysical metaconceptual principles: diversity in what something is in itself is always a matter of its relation to other unities. Hegel says:

[T]he force is really the unconditioned-universal, which is in itself just what it is *for an other*; that is, what has the distinction — for the distinction is nothing else than *being-for-others* — in itself.¹⁰ Perceiving consciousness had already understood even merely compatibly different properties as nonetheless *different* in virtue of their relations to *other* properties, namely those they *exclusively* different from. The discussion of the diverse expressions of force as consisting in relations to diverse other forces is going to add a substantial new dimension to the developing semantic picture, within the scope of a further application of the principle that difference within identity is always a matter of relation to others. In particular, in the allegorical story, each one of the different expressions of a single force is the result of the relation of that force to a different other force. The first he calls the “solicited” [sollizitiert] force, the other the “soliciting” force.¹¹ In the allegory, an example would be an acceleration of one gravitating mass caused by its proximity to another gravitating mass, or by the positive charge of one object in the context of the positive charge of another. In the more general case that the allegory is allegorical for, the different observable manifestations of any theoretical object is to be understood as arising from its interaction with different theoretical objects: the postulated level of demand yields the observed price because of its interaction with a corresponding level of supply, the genotype yields the phenotype it does because of the (internal biochemical and external resource) environment in which it is expressed.

The thought behind the “doubling of forces,” then, is that each theoretical entity can express itself in a number of (compatibly) different observable ways because it is related to a number of other different theoretical entities. Examining this application of the principle that diversity of *properties* consists in *relations* to diverse *others* (Hegel’s “being for another”) shows

⁹ [136].

¹⁰ [136].

¹¹ [137].

that insisting on a one-to-one correlation between expressions and “soliciting forces” is unnecessarily restrictive. The difference between two expressions of one force might consist not in the relation of that force to two different other forces, but in its relation to two different *sets* of other forces. Instead of one expression of a force being solicited by a single different force, differing from other expressions by the different soliciting forces, that expression might be elicited by a constellation of different forces, differing from other expressions by the different soliciting constellations of forces. With this realization we arrive at the allegorical conception of the “play of forces.” The diverse observable expressions of *all* the unobservable forces are understood as the products of the interactions of each force with *many* others—in the limit, with *all* the other forces.

At this point it might seem that we have seen a view of this shape before. After all, perceiving consciousness had already distinguished compatible, merely different properties by the different sets of properties from which they exclusively differ. Where is the conceptual progress made by empirical consciousness conceiving itself as understanding, along this crucial dimension of making intelligible a kind of identity that consists in relations to different things? In fact, a significant step has been taken, a substantial new element added to the semantic metaconceptual machinery the allegory is teaching us about. The notion of determinate conceptual content that empirical consciousness understanding itself as perceiving put in place was expressed entirely in a subjunctive hypothetical register. The content of universals is articulated by relations such as: *If* a particular *were to* exhibit this index universal then it *could not* exhibit any of this class of other universals and *must* exhibit all of this other class of universals. We have seen how the whole elaborate Aristotelean ontological framework of things-with-many-properties can be elaborated from the distinction between compatible and incompatible difference. These all concern what is and is not *possible* and what is and is not *necessary*. Each possible state of affairs (Tractarian *Sachverhalt*) is understood to be the determinate state of affairs it is in virtue of its relations of exclusion and inclusion to other *possible* states of affairs.

By contrast, the immediate, observable expressions of underlying unobservable inferentially postulated theoretical entities are something *actual*, and are brought about only by interactions among those theoretical entities that are construed as *actual*. This becomes clear already with the “doubling of forces” when the expression of force is analyzed as the effect of solicited and soliciting forces: “What arises out of this is that the concept of force becomes *actual* by virtue of its being doubled into two forces, and how it becomes actual.”¹² The sensuous

¹² [141].

immediacy of observable expression anchors inference to actuality. States of affairs are treated as actual by being taken to be expressed. Their contentfulness still depends on their being surrounded by a nimbus of other possible states of affairs from which they differ, compatibly or exclusively. But to this space of heretofore merely subjunctive relations has been added a distinction between states of affairs that are actual, that is expressed, and those that are not. (We think about the ‘actuality’ asterisk having been inscribed on some of the possibilia—and about the significance of doing so.)

Further along, when we look at this new element from the side of the subject, rather than, as here, exclusively from the side of the objects of knowledge, the new metaconceptual piece of the puzzle shows up as the addition to conditional inferential commitments (if one were committed to *p*, then one would be committed to *q*) of unconditional doxastic ones (commitment to *p*). *Semantics* is seen to have an essential *epistemic* dimension. One cannot treat what one *means* as independent of what one *takes to be true*. This all happens when we consider the crucial symmetric intentional relations between objective relations codified as *laws* and subjective practices of *explanation* in the middle portion of the chapter. One manifestation of the need for the supplementation being considered comes up there when we see that applying general laws in the explanation of determinate occurrences requires the invocation of boundary conditions specifying the actual case to which the law is being applied. Filling out the modal spectrum by adding actuality to possibility and necessity on the objective, ontological side corresponds to recognizing the significance of belief for meaning on the side of the empirically knowing subject.

As already indicated, when the play of forces comes on the scene allegorically, the status of the observable effects that express the interactions of theoretical entities alters. It does so in two stages. First of all, it is demoted to being considered as the mere appearance of the underlying theoretical reality: how things are for consciousness, by contrast to how things are in themselves. Second, what had at the first stage been considered an ontological distinction, between appearance and reality, is demoted to merely epistemic or methodological distinction, between the observable and what is only inferentially accessible, a distinction between things in terms of how they can be known (be something for consciousness) rather than what they are in themselves.

For the first, as already remarked, Hegel says:

Our object is thus from now on the syllogism, which has for its extreme terms the inner of things and the understanding, and for its middle term has appearances...¹³

And further:

In this, what is the *inner true*... has come to be *for the understanding*; for the first time and from now on, there opens up over and above the *sensuous* (as the *appearing*) world a *supersensible* world (as the *true* world)...¹⁴

The true world, the world of things as they are in themselves, is now taken to be the theoretical entities, whose interactions produce the observable effects (in the allegory, the expressions of the forces) that constitute its appearance, what it is for consciousness. This is what I called “invidious Eddingtonian theoretical realism.” It is a theoretical realism in that, like Eddington in his famous essay, it identifies the real with the theoretical entities that are postulated as actual, whose activity is understood as the source of what is observable. It is invidious insofar as it understands the observable/theoretical distinction to be an ontological one, and, turning on its head the implicit instrumentalism of empirical consciousness understanding itself as sense certainty and as perceiving, treats *only* the theoretical entities as real.¹⁵ What is sensuously immediate, the touchstone and paradigm of the real for the two previous forms of empirical (self-)consciousness, now appears only as an epistemic means, mediating the access of the understanding to an underlying theoretical reality, which is something *for* consciousness only by means of inferences whose premises are supplied by sensuous immediacy. The truth of the sensuously immediate world is the supersensible world it gives empirical consciousness inferential access to: “The supersensible is the sensuous and the perceived posited as it is *in truth*.”¹⁶

Invidious Eddingtonian theoretical realism is, of course, a view that has had many philosophical adherents since Eddington. It is for instance a close relative of the view that Sellars endorses under the rubric of the *scientia mensura*: “In the dimension of describing and explaining the world, science is the measure of all things, of what is that it is, and of what is not that it is not,”¹⁷ Sellars treats this view as a successor version of Kant’s things-in-

¹³ [145].

¹⁴ [144].

¹⁵ This is the view where, since no content can be acknowledged for the inner world of things as they are in themselves, “nothing would be left but to stop at the world of appearance, i.e. to perceive something as true that we [now] know is not true.” [146]

¹⁶ [147].

¹⁷ *EPM* §41.

themselves, to be contrasted, as noumenal, with the merely phenomenal ordinary language “manifest image,” which is a generalization of Eddington’s plain man’s observable table, the table of the pre-theoretical life-world.¹⁸

The invidious theoretical realism Hegel is considering is not quite identical to the scientific realism Sellars champions, however, and the difference points in the direction Hegel sees as implicit in the position he is considering here. For it is one thing to say that it is the deliverances of *science* that have sovereign authority “in the dimension of describing and explaining” (a qualification that is of cardinal significance for both thinkers), and another to say that what is real is exclusively the *theoretical* entities postulated by science. The latter is what makes the theoretical realism in question *invidious*. For natural science, too, countenances at least some observable properties and things as real (even if, Sellars more or less agrees with Eddington, colors are not among them, counting as only secondary qualities). The lesson Sellars thinks we should learn by seeing what is wrong with instrumentalism is not just that theoretical entities (that is, those that are only available inferentially) can be real, but more deeply, that the distinction between the observable and the theoretical should not be construed as an ontological distinction at all. It is of merely methodological or epistemic significance, a matter of our mode of access to things, which does not mark a distinction of ontological or metaphysical kind.¹⁹ He rejects what he calls the “Platonic principle,” according to which the most important distinctions of ontological kind (Being/Becoming) are to be marked off by our mode of epistemic access to them (intellect/sense). Pluto, formerly-known-as-a-planet, was originally theoretically postulated, as a body of such-and-such a mass in such-and-such an orbit, to explain perturbations in the orbit of Neptune. It did not change ontological status when telescopes were developed that enabled observational, noninferential knowledge of it.

As I understand him, Hegel is making a corresponding point in his discussion of how the conception of the supersensible world construed according to invidious theoretical realism develops. The concept of appearance must be decoupled from that of what is observable (sensuously immediate), and reconstrued along the lines developed in the *Introduction*. That is, appearance is the status a way things could be has to consciousness when it is discovered *not* to be how things are *in themselves*, but only how they were *for* consciousness—that is, through the experience of error. In this sense, theoretically postulated entities can be discovered to be merely apparent, and observable ones can retain the status of the real. When what shows up in the allegory originally as the sensuously

¹⁸ In his Locke lectures, published as *Science and Metaphysics: Variations on Kantian Themes* [Routledge and Kegan Paul, 1968. Reprinted by Ridgeview Publishing Co. 1992]. Hegel remarks on this reading of Kant in [146], pointing out that it would be a ridiculous overreaction to think of things in themselves as an *unknowable* beyond on this conception of them. Sellars agrees and takes this fact to be a prime advantage of his critical rendering of the Kantian idea.

¹⁹ EPM § [ref.].

immediate expression of sensuously unconditioned forces is reconstrued as the effects of the actual interactions of theoretical entities, the realization that those effects generally include both observable and purely theoretical ones becomes available. In the allegorical conception of the play of forces, the difference between observable and unobservable effects plays no role. It is important that some of those effects be observable, so that we have premises enabling us to find out about the rest inferentially, but that is an epistemic or methodological matter, not an ontological one.

The way this move gets made in *Force and Understanding* is that the play of forces, which in invidious Eddingtonian theoretical realism stood in allegorically for theoretically postulated reality known about inferentially via the mediation of observables that result from the interactions of solicited with sets of soliciting forces, itself is unmasked as an appearance, as being not reality as it is in itself but only what it was *for* the understanding consciousness at the end of its first tripartite experience (which led from force and its expression, through the doubling of forces, to the play of forces). At this turning-point

The Understanding, which is our object, finds itself in just this position, that the inner world has come into being for it, to begin with, only as the universal, still unfilled, *in-itself*. The play of Forces has merely this negative significance of being *in itself* nothing, and its only positive significance that of being the *mediating agency*, but outside of the Understanding... What is *immediate* for the Understanding is the play of Forces; but what is the *True* for it is the simple inner world.²⁰

What is immediate for understanding consciousness is different from what is immediate for empirical consciousness understanding itself as sense-certainty or as perceiving. The immediacy in question is not *sensuous* immediacy, the immediacy of what is noninferentially observable, but the immediacy of what is thinkable, what is graspable by being placed in a conceptual space, articulated by relations of material consequence and incompatibility (mediation and determinate negation). It is in this sense that the play of forces is immediate for Understanding: it is a set of actualities interacting according to modal relations of necessity, possibility, and impossibility in virtue of which it is *conceptually* articulated and so *immediately* graspable by empirical

²⁰ [148].

consciousness conceived of as understanding, that is, as grasping thinkables precisely in virtue of their standing in just this sort of relation to other thinkables.

How is it that the play of forces, as immediate for understanding consciousness in this sense comes to have the status to understanding consciousness of being merely what things are for consciousness, not what they are in themselves, namely to have the status of appearance in the sense of the *Introduction* (to which observability is irrelevant)? What does it mean to say that the new “inner”, supersensible world that to understanding consciousness is the in-itself, the real, of which the play of forces is an appearance is “simple,” “only universal,” “still unfilled”? What washes out to indeterminate blankness the picture of interacting actual forces made determinate by the relations of inclusion and exclusion, necessity, possibility, and impossibility they stand in to one another and to the nimbus of merely possible theoretical states of affairs that surrounds each?

Hegel makes it harder to see the answers to these questions than it perhaps needs to be by putting the cart before the horse in his exposition. That is, as I read him, this move is not explained and motivated before its outcome is characterized, in the passage quoted above. Rather, the outcome is stated first, and only then is the process that leads to it expounded. The play of forces allegorically introduces a *holistic* ontology. The forces are actual only in that they are expressed, that is, only in what is produced by their interactions with other forces. But now what is produced by those interactions is understood in exactly the same way, as being of the same kind, as the forces that interact. How is this identity as consisting in relation to others, whose identity also consists in its relations to others, to be understood? If the others are already individuated, then diverse expressions upon interactions with diverse others are intelligible. But if that individuation is itself thought of as consisting solely in such diverse interactions with diverse others, the conception threatens to collapse. I think the undifferentiated, indeterminate, “simple,” “still unfilled” picture of the inner invoked in the passage quoted above is the result of understanding consciousness trying to make explicit what is implicit in this holistic picture, before it has developed the conceptual resources necessary to do so—before understanding itself as “infinite,” in Hegel’s somewhat alarming terminology.

Here is what Hegel says following the summary quoted above of the situation this experience leads to:

[T]his play of Forces is so constituted that the force which is *solicited* by another force is equally the *soliciting* Force for that other, which only thereby becomes itself a soliciting Force. What is present in this interplay is likewise merely the immediate alternation, or the absolute interchange, of the *determinateness* which constitutes the sole *content* of what appears: to be either a universal medium, or a negative unity. [viz.: inclusive ‘also’ or exclusive ‘one’]...Each of these two sides, the *relation* of soliciting and the *relation* of the opposed determinate content, is *on its own account* an absolute reversal and interchange [Verkehrung und Verwechslung]. But these two relations themselves are again one and the same, and the difference of *form*, of being the solicited and the soliciting Force, is the same as the difference of *content*, of being the solicited Force as such, viz. the passive medium on the one hand, and the soliciting Force, the active, negative unity or the One, on the other. In this way there vanishes completely all distinction of *separate*, mutually contrasted *Forces*, which were supposed to be present in this movement, for they rested solely on these distinctions; and the distinction between the Forces, along with both those distinctions, likewise collapses into only one. Thus there is neither Force, nor the act of soliciting or being solicited, nor the determinateness of being a stable medium and a unity reflected into itself, nor are there diverse antitheses; on the contrary, what there is in this absolute flux is only *difference* as a *universal* difference, or as a difference into which the many antitheses have been resolved.²¹

Here the claim is that trying to make sense of the play of forces raises the same problem twice, once on the side of form and again on the side of content. On the side of form (what has been added by understanding consciousness, bringing with it the crucial added modal dimension of actuality), the distinction between forces depends on each of them playing the role of being solicited by a variety of *other* forces playing the role of soliciting actual expressions by their interaction. But if all there is to identify and individuate them is standing in these relations to *different* other forces, which similarly are distinguished only by *their* standing in such solicited/soliciting relations to different other forces, how is the process of individuation to get off the ground? On the side of content (the model of the determinate content of states of affairs inherited from perceiving consciousness) involves particulars exhibiting a diversity of universals, with that diversity being understood in terms of relations to others along two dimensions: relations to other compatible universals in an inclusive medium (the particular as ‘also’) and relations to other incompatible universals via an exclusive unity (the particular as ‘one’). For this picture of determinately contentful unity-in-and-through-diversity to be intelligible, it seems, those other universals appealed to in articulating the two dimensions of relations-to-others must already be intelligible *as distinct and distinguished from one another*.²²

The result of these difficulties is that both the distinction of form and the distinction of content, and, indeed, also the very distinction between form and content implicit in the concept of the play of forces collapse. A better way must be found of understanding this distinctive sort of holistic system of items that are determinate solely in virtue of their relations to one another, according to the principle that diversity always consists in relations to others. One important consequence of this unmasking of

²¹ [148].

²² I discuss in more detail this issue of the intelligibility of holism, and what I take to be Hegel’s response to it, in “Holism and Idealism in Hegel’s *Phenomenology*” which is Chapter Six in *Tales of the Mighty Dead* [Harvard University Press, 2002].

the understanding's conception of the play of forces as implicitly collapsing into indeterminateness is that that what that conception is to understanding consciousness alters in status. It can no longer be taken to be how things are in themselves, but only how they were for (understanding) consciousness. That is, that conception of actually interacting theoretical entities whose interactions produce effects both observable and unobservable is revealed to be mere appearance, not just in some of its parts, but *in toto*. The assumption that the reality side of the reality/appearance distinction lines up with the unobservable side of the observable/unobservable (sensuously immediately accessible vs. inferentially mediately accessible) distinction, characteristic of the invidious theoretical realism of this first form of understanding consciousness is to be rejected, just as the identification of reality with the observable side, characteristic of sense-certainty and perceiving consciousness was rejected by understanding consciousness.

This experience of consciousness conceiving of itself as understanding (as grasping determinate thoughts) is not just the abstract or formal negation of the conception it unmask as appearance, however. It is a determinate negation of that conception, and as such presents also a positive content. The final, concluding sentence of the line of thought Hegel presents in the long passage above, following immediately after what is quoted there, concerns the positive characterization of what remains after the collapse of the play of forces:

This difference, as a *universal* difference, is consequently the *simple element in the play of Forces itself*, and what is true in it. It is the *law of Force*.²³

In fact a number of lessons are taught by this first (three-phased) experience of understanding consciousness: the ontological legitimacy of merely inferentially accessible entities, the essential role played by actuality in filling out the modal structure of necessity and possibility that articulates determinately contentful states of affairs, and the need for a holistic conception of what it is to be determinately contentful. The principal overarching form of the move being made, comprising these lessons, is however the transition from thinking in terms of force to thinking in terms of law. This is a shift of focus, consonant with the holistic lesson, from *relata* to the *relations* that, it has been learned, functionally define and determine those relata. Instead

²³ [148].

of asking about the nature and ontological status of theoretical entities, in the sense of items that are only inferentially accessible, semantically and epistemically, to empirical consciousness, consciousness conceiving of itself as understanding now asks about the *relations* in virtue of which anything at all is inferentially accessible. These are relations of necessity, possibility, and impossibility that constrain and determine the actual interactions of thinkables: the determinately conceptually contentful states of affairs we think about.

The relations that identify and individuate (differentiate) objective states of affairs are relations of material incompatibility and consequence, Hegel’s “negation or mediation”, about which he says:

[N]egation is an essential moment of the universal, and negation, or mediation in the universal, is therefore a *universal difference*. This difference is expressed in the *law*, which is a stable image of an unstable appearance. Consequently, the supersensible world is a calm realm of laws which, though beyond the perceived world—for this exhibits law only through incessant change—is equally *present* in it and is its direct tranquil image.²⁴

The “unstable appearance”, the “perceived world” is now not just what is available through observation, but what has been allegorized as the whole play of forces, now demoted to the status of being the moving appearance of the calm realm of laws. The question accordingly becomes how we should understand the relations between laws of nature and the concrete things whose antics are governed by those laws.

I take it that one of the large lessons Hegel wants to teach us through the subsequent discussion in this chapter is that it is a mistake to reify the laws, that is, to think of them as constituting a supersensible world. To do that is to think of statements of law as functioning like ordinary ground-level empirical statements, as describing or representing some way the world is. To use that representational model is to think of statements of law as stating superfacts. Hegel wants to move us beyond this representational semantic paradigm to an expressive one. Statements of law should be understood as making explicit something that is implicit already in

²⁴ [149]. I have substituted Baillie’s ‘calm’ for Miller’s ‘inert’ translating ‘ruhiges’.

ordinary empirical descriptions of how things are. What they make explicit are alethic modal features of the conceptual articulation of objective empirical states of affairs in virtue of which they are the determinate states of affairs they are. The notion of representation has a place in this larger picture, but it is not the exclusive Procrustean semantic model to which all statements should be assimilated.

Before getting to the main point—which will lead us to lay the concept of explanation alongside that of law—Hegel makes two preliminary observations about the calm realm of laws picture. The first is that “The law is present in appearance, but it is not the entire presence of appearance; under ever different circumstances, the law has an ever different actuality.”²⁵ “Appearance” here is the actual behavior of entities revealed both immediately through observation and mediately through inference: in the allegory, the “play of forces.” Laws of nature determine how things actually interact only when supplemented by actual boundary conditions. The necessities and possibilities laws codify are hypothetical. They determine what actually happens only in the context of actual circumstances of application, which single out some of those hypotheticals as worthy of detaching conclusions from, by fixing which antecedents are factual (actually true). This observation reflects one of the advances of understanding over perceiving consciousness pointed out above: the realization that the extreme modal registers of necessity and possibility require help from the middle register of actuality in order to determine the actual “expression of forces”, solicited by the concerted play of their fellows, to yield appearance. As it shows up here, the observation concerns the relations of laws to forces. There are two kinds of necessity in play: the hypothetical necessity codified in law and lawful necessity as expressed under actual conditions. The latter is equivalent to force. The interplay between actuality, on the one hand, and necessity and possibility on the other hand—which can be construed in terms of relations between categorical and merely hypothetical necessity—in the constitution of determinate conceptual content is intricate. What is being rejected is the strategy of understanding it by construing the structure of necessity-and-possibility as a special kind of actuality: as a supersensible world.

Thinking of laws as a kind of superfact threatens to make unintelligible this relation between law and matter-of-factual forces (facts about the actual behavior of things). One way to think about the difficulty emerges explicitly a bit further on. It is that laws and the things they govern seem to present the same content in two different forms:

*Force is constituted exactly the same as law; there is said to be no difference whatever between them. The differences are the pure, universal expression of law, and pure Force, but both have the same content, the same constitution [Beschaffenheit].*²⁶

For the laws codify the relations among things, paradigmatically theoretical entities, in virtue of which they are the things (“forces”) they are. In the case that is paradigmatic for the allegory, what *force* is is expressed by the *law*

²⁵ [150].

²⁶ [154].

$F=m*a$, and is not intelligible apart from it. The law expresses what force is, and force is what the law says it is. But how is this to be understood if the law is reified into a kind of (super-)actuality, a superfact? Is the relation between the facts and the superfacts itself governed by superlaws? Hegel wants us to think of the laws as making explicit the determinate conceptual content that is implicit in ground-level “forces.” The law *expresses* the content of the force (rather than representing a kind of super-force). This expressive hylomorphic relation is misconstrued if it is thought of on the model of a relation between two kinds of *things* (represented, facts, worlds).

The second preliminary observation concerns a question about laws that is in some ways analogous to the holistic issue about how to understand the relations between individual determinate forces and the whole play of forces. In the allegory, this shows up as an issue concerning the relations between a single universal law (of gravitational attraction) and more specific laws of motion derivable from it when various conditions are fixed. “insofar as it is not *the* law in general but *one* law, it has determinateness in itself; and as a result there are indeterminately *many* laws on hand.”²⁷ In this case, though, Hegel impatiently reads the allegory for us.

In saying that, the understanding supposes that it has found a universal law, which expresses universal actuality *as such*; but it has really only found the concept of law itself, but nonetheless in such a way that it says at the same time: All actuality is *in itself* lawful.²⁸

Universal attraction, that is, the pure concept of law, thereby stands over and against determinate laws.²⁹

The issue concerns the relation between *lawfulness* in general, and particular determinate laws. This is a third kind of necessity, contrasting both with that expressed by determinate laws and that expressed by determinate laws under actual boundary conditions. Still reading his own allegory, Hegel says that the lesson to be learned from consideration of the one overarching law of universal attraction (gravitation) (contrasting with more determinate laws) within the allegory is the importance of modal articulation in understanding determinate contentfulness of actual states of affairs:

[T]he expression of *universal attraction* has to that extent great importance as it is directed against that *representation*, that is devoid of thought, for which everything presents itself in the shape of contingency and for which determinateness has the form of sensuous self-sufficiency.³⁰

We saw already in considering perceiving consciousness that what is sensuously immediate as actual is intelligible as determinate only in virtue of its relations of material incompatibility and consequence to other possible states of affairs—relations that are made explicit in the form of laws specifying what is necessary and what is possible. The puzzle being registered includes a Kantian dimension: that lawfulness in general—that all actuality is lawful—is something that can be established *a priori*, in advance of considering particular determinate laws, while the bindingness of such determinate laws must in general be established empirically.

²⁷ [150].

²⁸ [150].

²⁹ [151].

³⁰ [150].

These questions about how to understand the relations between laws and the “forces” they govern remain unresolved at this point in the text. I think Hegel takes them to be unresolvable so long as understanding consciousness remains bound to a representational paradigm, according to which what is expressed by modally qualified claims about what is necessary and possible are thought of as playing the expressive role of representing states of affairs that are *like* actual states of affairs: real, but located in a distinctively different ontological postal code. Hegel will recommend an expressive successor conception to this representational one, according to which statements of law express explicitly features of the framework within which it is possible to understand determinate ground-level states of affairs. It is a criterion of adequacy of that replacement picture that it provide satisfactory responses to the questions being raised here, once those questions have been transformed by formulating them without representational presuppositions about what laws express.

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Part Two: Law and Explanation

The idea of the calm realm of laws as a supersensible world is the idea that laws are superfacts which are represented by statements of laws in the same way facts in the world of empirical appearance (including what is only accessible inferentially) are represented by ordinary statements about what properties objects have. Hegel considers a final way in which the representational semantic model deployed by empirical consciousness conceiving itself as understanding can be applied to yield a construal of the relations between law and the world of empirical appearance (the “play of forces”). This is what he calls the “inverted world” [verkehrte Welt]. The discussion of this topic is compressed and enigmatic. It has long been recognized as one of the most challenging passages in the *Phenomenology*. What the inverted world is the inverse of is in the first instance the world of appearance. But Hegel signals that the conception of the inverted world expresses another application of this same representational strategy for understanding the relations between law and appearance that led to the calm realm of

laws by describing it also as an inversion of that picture: “since one aspect is already present in the first supersensible world this is the inversion of that world.”³¹

The inverted world is indeed strange:

According, then, to the law of this inverted world, what is *like* in the first world is *unlike* to itself...Expressed in determinate moments, this means that what in the law of the first world is sweet, in this inverted in-itself is sour, what in the former is black is, in the other, white.³²

We learned already from the experience of perceiving consciousness that a property such as sweetness is determinate only in virtue of its relations of exclusive difference, “determinate negation,” Aristotelian contrariety, from other properties, such as sourness, with which it is materially incompatible. The index, uninverted world is the actual world. The picture is one according to which each actual state of affairs, each fact, is surrounded by a penumbra of merely possible, strongly contrasting states of affairs. (We can think here of Tractarian *Tatsache* surrounded by *Sachverhalte*. But unlike the Tractarian picture, even at the most elementary level the surrounding *Sachverhalte* are not *merely* different, but *exclusively* different.) The merely possible states of affairs stand in relations of *necessary* exclusion and inclusion (consequence) to one another. One thing that was missing from the picture of perceiving consciousness is the privileging of *one* set of compossibles, as *actual*. After all, *many* (possible) objects are actual—but not all of them. What is being addressed here is the relation between actuality and necessity-structured possibility. We already saw that taking as a topic the relations between these two different modal registers is one of the characteristic advances of understanding consciousness over perceiving consciousness.

So far, so good. We can see the inverted world as a conception that combines a semantic point familiar from *Perception* with the concern, new to understanding consciousness, with the relations between actuality (empirical appearance, including what is only epistemically available inferentially), allegorized as the play of *forces*, and necessity-structured possibility, namely the realm of *law*. The latter is reified, treated as a supraempirical world of merely possibles, which are thought of as represented by modally qualified statements in the same sort of way that actual facts are represented by ground-level empirical statements. But thinking of the merely possible states of affairs that render actual states of affairs determinate by strongly contrasting with them as constituting a *world* (albeit an “inverted” one) seems immediately to run afoul of another

³¹ [157]. In this bit of the text, Hegel refers to the calm realm of laws as the “first supersensible world.” I count it as actually the second, after reality construed as the purely theoretical entities that give rise to observable expressions according to invidious Eddingtonian theoretical realism.

³² [158].

cardinal lesson we learned from the experience of perceiving consciousness. The facts that make up the actual world are *compossible*, materially compatible, *merely*, not exclusively different from one another. That seems like a reasonable necessary condition of thinking of them as making up a *world*. By contrast, the states of affairs that exclusively differ from actual states of affairs are not compossible or compatible with one another. **Sour** is materially incompatible with **sweet**, but so is **bitter**. And **bitter** and **sour** are materially incompatible with each other.³³ **White** is not the only contrary (the sense of “opposite” [entgegengesetzte] I am claiming is in play here) of **black**. **Red** and **green** are as well. The semantogenic possibilia that surround each actual fact like a cloud do not make up a *world* in the sense of a set of *compossible*, *compatible* states of affairs. The actual world, like any particular object, does not have an “opposite” in the sense of a contradictory, even though properties can.

The view being considered does not reify the necessity-structured (lawfully related) possibilities that strongly contrast with actuality into *another* “world,” alongside the actual world. The world as inverted is not itself a world. It is supersensible, since unlike actuality, possibilities cannot be sensuously immediate, and so cannot even supply observationally delivered premises from which other merely possibles could be known inferentially.

I think the difficulties readers have had with the inverted world section of the *Phenomenology* are rooted in this fact. Hegel is not describing the inverted world as *indeterminate*, in the way it would be if what were sweet in the actual world were simply *not*-sweet in the inverted world, and what was actually black were *not*-black. The inverted world consists of states of affairs that are determinate, like those of the actual world. But the inverted world is *overdetermined*. It seems that things in it must have *all* of the determinations that are contrary to (exclusively different from) what they have in the actual world. That is incoherent. Because the conception seems incoherent on its face, the related difficulty arises of explaining what motivates taking this conception seriously—indeed, as seeing it as *more advanced* conceptually than the supersensible world of theoretical entities of invidious Eddingtonian theoretical realism and the supersensible calm realm of laws. After all, both of those conceptions have been and to some extent still are actually defended by serious philosophers. If it is only

³³ Tastes probably don’t actually work like this, so the example is not the best Hegel could have chosen. The colors work better.

Hegel's own analysis of determinate contentfulness in terms of exclusive difference ("determinate negation") that motivates taking seriously *this* conception of a supersensible world, one is inclined to think "So much the worse for his semantic analysis."

While understandable, I think such worries are mistaken. The view Hegel addresses under the heading of the "inverted world" is a coherent one, and it has been and is endorsed and defended by serious philosophers who do *not* start with Hegel's account of determinateness in terms of contrariety. For the view he is considering is formally equivalent to contemporary possible worlds approaches to modality, epitomized by that of David Lewis. To see this, it will help to compare the possible worlds framework (PW) with the inverted world picture (IW). In orthodox PW, we contrast the actual world as just *one* maximal compossible set of states of affairs, with other possible *worlds*, also conceived of as (or as determining/determined by) maximal compossible sets of states of affairs. The states of affairs of the actual world are made intelligible by situating them in a *universe* of other possible worlds. We can then understand an actual state of affairs in terms of the truth at the actual world of a proposition, construed as a set of possible worlds (those in which that proposition is true). Determinateness of an actual state of affairs is a matter of partitioning the universe of possible worlds in which it is situated. Two propositions are materially incompatible just in case there is no possible world in which both are true. Contradictories are minimum incompatibles (propositions entailed by everything materially incompatible with what they are contradictories of). Since two distinct possible worlds must have *some* difference in the propositions true at them, and they are *maximal* compossible sets of states of affairs, any two distinct possible worlds will have materially incompatible propositions true at them. That is, they do not *merely* differ, they also *exclusively* differ. Material incompatibilities of states of affairs (propositions) is encoded in what sets of states of affairs are taken to be genuinely compossible, i.e. to make up a genuinely possible world.

Exactly the same information is presented in Hegel's IW, but packaged somewhat differently. Rather than contrasting the actual world with other possible *worlds*, each actual *state of affairs* is contrasted with all of the states of affairs that are incompatible with *it*. So what contrasts with the actual world, as a maximal set of compossible states of affairs, is rather the whole set of

(noncompossible) nonfactual states of affairs. The IW is simply the set of all the states of affairs that stand in this relation of exclusive difference or material incompatibility, to *some actual* state of affairs. If this set is determined, then putting it together with the underlying material incompatibilities (necessities-governing-possibilities), we can compute all the compossible sets of those states of affairs. What we do in PW is conversely to compute what is incompatible (noncompossible) with a given proposition (represented by a set of possible worlds), from the whole set of possible worlds, taken as settled in advance of the computation. The PW framework and the IW framework are formally equivalent. We can start with the universe of possible worlds and compute material incompatibilities of states of affairs (propositions), construed as sets of possible worlds, or we can start by associating with each state of affairs the set of all states of affairs that are materially incompatible with it and compute the sets of maximal compossible sets of states of affairs, that is, the possible worlds. Exactly the same information can be packaged in either way.

Having learned the metaphysical lessons taught by the experience of perceiving consciousness, we note that the IW is not in the ordinary sense a *world*, since its elements are not compossible. But neither are the elements of the PW's "universe" of possibilia. (Whether the possible *worlds* of PW are worlds in *exactly* the same sense the actual world is the issue that divides Lewis's "mad dog modal realism" from that of more moderate theorists.) A wider sense is being given to the term "world" (or "universe") in *both* cases.

So my claim is that what Hegel is considering as the final mistaken form of understanding consciousness thought about the relation between actuality and a necessity-structured set of possibilia is a version of (is formally equivalent to) the contemporary possible worlds framework. Conceptually they have in common with each other, and with the picture of the calm realm of laws, an understanding of modal statements about what is necessary and possible as *describing* or representing something in the same sense in which statements about what is actual describe or represent something. The difference is that what modal statements describe or represent is not to be found in the here of empirical actuality, but "over there" [jenseits], in some other, supersensible world, a universe of possibilia that contrast strongly with actual states of affairs. It is for his purposes immaterial whether those exclusively different possibilia are construed as states of affairs (as in IW) or maximal compossible sets thereof (as in PW). What is important is the assimilation of our semantic relation to them to our semantic relation to actual states of affairs, with both falling under the rubric of description or representation. Universalizing this semantic model, what might be called descriptivism or

representationalism, is the fatal flaw in understanding consciousness that must be overcome to move beyond it (from the metaconceptual framework of *Verstand* towards the metaconceptual framework of *Vernunft*).

Of greatest interest, I think, is the alternative expressive view that Hegel wants to put in place of this picture, which he rejects as still unduly representational. What is made explicit by modal claims (including statements of laws) is *implicit* in what we are doing in making ordinary ground-level empirical claims, which *do* describe (represent) how things are. The key to understanding the relevant sense of “implicit” and “explicit expression” is realizing that one cannot understand what one is *saying* in making modal claims without understanding what one is *doing* in making them. For this reason, one cannot understand the relation between modal and matter-of-factual claims (the relations between “law” and “force” that are the topics of both IW and PW) while remaining wholly on the objective side of the intentional nexus. One must think about how statements of laws (claims about what is necessary or possible) are used, the role they play in *explanation*.

Developing that line of thought is the principle interest of the rest of this chapter. Still, given what I have argued is Hegel’s prescient consideration of a version of contemporary possible worlds approaches to necessity and possibility, it is of some interest to think about what he thinks is wrong with this version of a “supensible world.” One point can be disposed of straightforwardly. Hegel thinks there is no go to the thought of developing this picture so as invidiously to distinguish the supersensible world as *real* from actuality, considered as mere appearance. Doing so is of course optional, but it was so also for the previously considered supersensible worlds: that of invidious Eddingtonian theoretical realism and that of the calm realm of laws.

Looked at superficially, this inverted world is the opposite of the first in the sense that it has the latter outside of it and repels that world from itself as an *actual world*: that the one is appearance, but the other is the in-itself.³⁴

This superficial view is to be deplored and rejected.

More deeply, Hegel objects to understanding the semantogenic possibilities by contrast to which actual states of affairs are intelligible as determinate on the model of those actual states of affairs.

³⁴ [159].

[S]uch antitheses of inner and outer, appearance and the supersensible, as two different kinds of actuality we no longer find here. The repelled differences are not shared afresh between two substances such as would support them and lend them a separate subsistence...*just such an sense-world* as the first, but in *representation* [Vorstellung]; it could not be exhibited as a sense-world, could not be seen, heard, or tasted, and yet it would be thought of as such a sense-world. But, in fact, if the one *posited world* is a perceived world, and its *in-itself*, as its inversion, is equally *thought of as sensuous*, then sourness, which would be the in-itself of the sweet thing is actually a thing just as much as the latter, viz. a *sour thing*, black, which would be the in-itself of white, is an actual black...³⁵

I think there are two principal objections to this view on offer. First, the reification of contrasting possibilia that is being rejected amounts to construing the modal articulation of actuality, which was originally presented in the shape of *laws*, on the model (allegorically) of further *forces*. That is, the possibilia are understood as further states of affairs, participants in what was allegorized as the play of forces, in some sense of the same kind as actual states of affairs, only not actual. Such a conception faces the same sort of difficulty that led to the postulation of laws as distinguished from the actual play of “forces” they govern. Understanding the relations between actuality and necessity-governed-possibilities threatens to require postulating a superlaw governing those relations. Material incompatibilities (what is compossible) and consequences are treated as just more ultimately contingent (super)facts. Such a view, Hegel thinks, misconstrues the radically different role played in explanation by what is made explicit by modal claims.

From the idea, then, of inversion, which constitutes the essential nature of one aspect of the supersensible world, we must eliminate the sensuous idea of fixing the differences in a different sustaining element; and this absolute Notion [Begriff] of the difference must be represented and understood purely as inner difference...³⁶

What specifically motivates the positive lesson we are to learn from the unsatisfactoriness of reifying semantogenic contrasting possibilia, though, is a fundamental conceptual difficulty in understanding the nature of necessary connections generally, which was raised to begin with in thinking about force, and then again more explicitly with respect to laws. The claim is that the IW picture does not resolve this difficulty. The issue is a version of Hegel’s master concern with conceptions of the relations between identity and difference. How can it be that the items related by a law are at once *distinct* from one another and *necessarily* related: joined in a necessary unity? This is Hume’s problem, and his response to it was the skeptical conclusion that the idea cannot be made intelligible. In Newton’s second law of motion, force, mass, and acceleration are related by $F=m \cdot a$. That this necessary relation holds among them is essential to what force and mass are. But if the law is a *definition* of “force” and “mass”, then it does not relate

³⁵ [159].

³⁶ [160].

independently intelligible magnitudes, since they are interdefined. The issue has an epistemological dimension: If $F=m*a$ is a definition, then it is knowable *a priori* and does not require empirical investigation to establish. But the question is at base a conceptual question about how to *understand* necessary connections.

The law determining the distance a falling object traverses in a given time, $d=k*t^2$, governs a kind of motion by asserting a necessary (lawful) connection between space (distance) and time. Hegel says:

In the law of motion, e.g., it is necessary that motion be split up into time and space, or again, into distance and velocity. Thus, since motion is only the relation of these factors, it—the universal—is certainly divided *in its own self*. But now these parts, time and space, or distance and velocity, do not in themselves express this origin in a One; they are indifferent [gleichgültig] to one another, space is thought of as able to be without time, time without space, and distance at least without velocity...and thus are not related to one another through *their own essential nature*.³⁷

For both force and mass, the necessary relation of one to the other is an essential aspect of its identity. Each can be what it is only as standing in this necessary relation to something else. It is equally essential to the unity that is motion, according to its laws, both that it be split up into different components, and that that partition be in some sense cancelled by the assertion that the lawful relation among the components is necessary and essential to what they are.

The difference, then...is not a difference *in its own self*; either the universal, Force, is indifferent to the division which is the law, or the differences, the parts, of the law are indifferent to one another.³⁸

Hegel is far from wanting to claim that this kind of unity through difference, identity as necessarily involving relation to an other, is unintelligible. On the contrary. The task of developing an adequate way of talking about and understanding this holistic sort of identity or unity is at the very center of his project. Like Kant in his response to Hume's skepticism about necessary nondefinitional relations and what is expressed by alethic modal vocabulary in general, Hegel thinks that what is

³⁷ [153].

³⁸ [154].

expressed by statements lawlike statements of necessary connections cannot be understood in terms rigorously restricted to description of the objective world, but must involve recourse to talk about the cognitive activities of knowing subjects. The way the activities of knowing subjects come into his story is quite different from the way they come into Kant's story, however. At this point in the text we have seen him express dissatisfaction with the invocation of supersensible modal superfacts as a response to the issue. He does not see that issue as adequately addressed by the claim that laws describe the layout of the space of maximal materially compossible states of affairs. A responsive answer along these lines would have to say a *lot* more about what makes states of affairs compossible or not, in the sense that matters for determining what constellations of states of affairs constitute genuinely *possible* worlds.

So what is his response? It begins with the idea that understanding the sense in which force and mass are distinct but necessarily related by Newton's second law requires thinking about how statements of the law function in *explanation*, to begin with, in *inference*.

[T]he law is, on the one hand, the inner, *implicit* in-itself [Ansichseiende] being, but is, at the same time, inwardly differentiated...this inner difference still falls, to begin with, only within the Understanding, and it is not yet posited *in the thing itself*. It is, therefore, only its *own* necessity that is asserted by the Understanding; the difference, then, is posited by the Understanding in such a way that, at the same time, it is expressly stated that the difference is not a *difference belonging to the thing itself*. This necessity, which is merely verbal, is thus a recital of the moments constituting the cycle of the necessity. The moments are indeed distinguished, but, at the same time, their difference is expressly said to be *not* a difference of the thing itself, and consequently is immediately cancelled again.

This process is called "explanation." [Erklären]³⁹

The kind of essentially differentiated necessary unity expressed by law can be understood in the first instance by considering the *process of explanation*. A law such as $d = k \cdot t^2$ can be exploited according to two different orders of explanation, depending on what one takes as premise and what as conclusion in an inference. One can explain why the stone fell the distance it did by computing d from t , or one can explain why it took as long as it did to fall the fixed difference by computing t from d . Hegel calls making these inferences "reciting the moments" that are necessarily related by the law (the "cycle of necessity"). The difference in the moments, in spite of their necessary connection by the law, is manifest in the different orders of

³⁹ [154].

explanation, the difference in what understanding consciousness is *doing* in making the two different kinds of move.

The exact nature of the relation between the distinction between two orders of explanation—inferring distance from time and inferring time from distance—on the one hand, and the distinction between the two necessarily related “moments” of the law, distance and time, is not yet clear to the shape of understanding consciousness being considered. It does not yet see how to understand the difference between distance and time as being a feature of the objective world. What it does appreciate, the new insight characteristic of this form of empirical consciousness conceiving itself as understanding, is that the differentiation into necessarily related moments that is essential to the articulation of the objective world expressed by laws is unintelligible apart from consideration of the inferential *movement* of empirical consciousness in explanations that traverse the moments in different directions. The idea is that the *objective relations* among theoretical entities that are codified in laws can only be adequately understood in a context sufficiently capacious as to include *subjective* inferential *processes* of explanation (“subjective” not in a Cartesian sense, but in the sense of being activities of knowing subjects).

The claim that the objective pole of the intentional nexus cannot properly be understood apart from an understanding of the subjective pole, and so of the whole intentional nexus marks a decisive move in the direction of Hegel’s idealism. It is of the first importance to understand it correctly. As already indicated, Kant already had a version of this thought, motivated for him, as Hegel motivates it here, by thinking about the distinctive expressive role played by the alethic modal concepts deployed in statements of laws and the subjunctive conditionals they support. (“If the stone *had* fallen for *t* seconds, it *would* have fallen *d* meters.”) The expressive role of such conditionals is in turn a matter of the kind of subjunctively robust reasoning (inferences) they support. Statements of laws and subjunctive conditionals are (in Ryle’s phrase) inference-tickets. They codify patterns of reasoning. Understanding what it means to say that the objective world is lawful, that states of affairs stand to one another in relations of incompatibility

and necessary consequence, requires understanding the patterns of reasoning that those claims license. This view is a kind of *modal expressivism*.⁴⁰

I see the move being made here as the second in a three-stage process of articulating ever more radical commitments collectively constituting Hegel's final idealist view. The first commitment is to what I have called "conceptual realism." The second commitment is to what I call "objective idealism." The third is to what I call "conceptual idealism." I offer these claims as a tripartite analysis of Hegel's idealism, claiming that his view is what you get if you endorse all of them. I take it they form a hierarchy, with each commitment presupposing those that come before it.

As I read it, conceptual realism appears on the stage already in the *Introduction* to the *Phenomenology* (though not, of course, in all the detail that will be filled in at subsequent stages). This is the view, roughly put, that the objective realm of facts about empirical (but not necessarily observable) things, no less than the subjective realm of thoughts about them, is *conceptually* structured. Only an account that underwrites this commitment, Hegel thinks, can satisfy what I have called the "genuine knowledge condition": that when things go right, what things are for consciousness is what they are in themselves. Hegel's way of articulating conceptual realism depends on his nonpsychological conception of the conceptual. To be conceptually contentful is to stand in conceptual relations to other such conceptually contentful items. Conceptual relations are relations of material incompatibility (exclusive difference or contrariety) and consequence: Hegel's "determinate negation" and "mediation."

The picture of the intentional nexus at this stage is hylomorphic. One and the same conceptual content, functionally defined by the incompatibility and consequence relations it stands in to others, can take two forms: objective and subjective. In its objective form, for instance as the intricate structure of facts about particulars exhibiting universals that emerges at

⁴⁰ I discuss some more contemporary ways of working out this idea in Chapters 1, 4, and 5 of *From Empiricism to Expressivism: Brandom Reads Sellars* [Harvard University Press, 2014].

by the end of the *Perception* chapter, conceptual content is determined by *alethic modal* relations of incompatibility and consequence. They concern what is (im)possible and what is necessary. In its subjective form, conceptual content is determined by *deontic normative* relations of incompatibility and consequence. They concern what commitments one can be jointly entitled to, and when commitment to one content entails commitment to another.

The objective idealism that comes into view in the *Force and Understanding* chapter is a thesis about understanding. More specifically, it is a view about the relation between understanding the subjective pole of the intentional nexus and understanding the objective pole. I take it to be a symmetric claim: one cannot understand the objective pole without understanding the subjective pole, and *vice versa*. Though the dependences run in both directions, the dependence of the understanding of contentful thoughts on understanding the objective world they are thoughts about has been a theme throughout the *Consciousness* chapters. What is new with this shape of understanding consciousness is the dependence of understanding objectivity on understanding subjectivity.

There is a semantic distinction between two sorts of dependence relation that is fundamental to understanding the thesis of objective idealism. This is the distinction between reference-dependence and sense-dependence of concepts. This distinction begins with the Fregean distinction between sense and referent (his “Sinn” and “Bedeutung”). (Later on, the explication of a distinctively Hegelian version of these semantic notions will take center stage.) In Frege’s usage, a word such as “square” or “copper” *expresses* a sense, and that sense *refers* to some objective item, in this case, a property or substance-kind. Fregean thoughts (by which he means thinkables, not thinkings) are the senses expressed by sentential expressions. Grasping a thought is what subjects must do to understand what is expressed by a sentence. I will depart from strict Fregean usage by sometimes talking about the senses expressed by locutions as “concepts.” (For Frege, concepts are the *referents* of predicates, not their senses.)

Xs are *sense-dependent* on Ys just in case one cannot in principle count as grasping the concept X unless one also grasps the concept Y. In this sense, the concept sunburn is sense-dependent on the concepts sun and burn, and the concept parent is sense-dependent on the concept child. As these examples show, sense-dependence can be either asymmetric, as in the

first example, or symmetric, as in the second. *Xs* are *reference-dependent* on *Ys* just in case there cannot *be* *Xs* (referents of the concept X) unless there are *Ys* (referents of the concept Y). If Mrs. O’Leary’s cow kicking over a lantern was indeed the necessary and sufficient cause of the Great Chicago Fire of 1871, then the Great Chicago Fire of 1871 is reference-dependent on Mrs. O’Leary’s cow. Of course one could *understand* the former concept without *understanding* the latter. But the first concept would not *refer* to anything if the second did not. So there can be reference-dependence without sense-dependence. Sometimes the two relations do go together, as with parent/child or cause/effect, which are both reciprocally sense-dependent and reciprocally reference-dependent. And of course there are cases of concepts that stand in neither sort of relation to one another. Sloop and omelette are neither sense-dependent nor reference-dependent on one another.

The case that matters for thinking about what I am calling “objective idealism” is that of concepts that stand in a relation of sense-dependence but, unlike, say, superior and subordinate, *not* also in a relation of reference-dependence. One kind of example is provided by subjunctive response-dependent concepts and the properties they refer to. Suppose we define something as beautiful* just in case it would be responded with pleasure were it to be viewed by a suitable human observer. (The asterisk distinguishing “beautiful*” from “beautiful” marks my not being committed to this as being the right definition, or even the right form of definition, for “beautiful” itself.) Then one cannot understand the concept beautiful* unless one understands the concept pleasure (as well as others such as suitable human observer). Then one can ask whether the existence of beautiful* objects depends on the existence of pleasurable responses by suitable human observers. For instance, were there beautiful* sunsets before there were any humans, and would there have been beautiful* sunsets even if there never had been humans? It seems clear that there were and there would have been. For even if the absence of suitable human observers means that sunsets are in fact not observed, and so not responded to by suitable human observers at all, never mind with pleasure, that *had* there been such observers they *would* have responded with pleasure. And that is enough for them to count as beautiful*. So there can be sense-dependence without reference-dependence.

That is the sort of relation I take Hegel to be claiming obtains between the law and explanation. The concept law is sense-dependent, but not reference-dependent, on the concept explanation. In order to understand what a law *is*, one must understand how statements of laws function inferentially in explanations. Only grasping the latter, the process of “traversing the moments” in inferences explaining one fact in terms of another by means of lawful relations between them, can make intelligible the distinctive sort of necessary unity of what are nonetheless claimed be distinct “moments” in a law such as Newton’s second law of motion. The claim is *not* that if there were no explanations, there would be no laws. Newton’s second law held before there were humans, and would still hold even if there never had been and never would be. [More-in-sorrow-than-in-anger but still snarky footnote here about Heidegger getting exactly this wrong in SZ?] Independence claims are determinately contentful only if the kind of dependence being denied has been specified. Objective idealism does claim that the objective world is not, in a specific sense, mind-independent. But since it is sense-dependence that is asserted and not reference-dependence, denying this sort of mind-independence is *not* saying that the existence of inferring, explaining subjects is a necessary condition of the existence of a *lawful* objective world. The relation of this objective idealism to Kant’s transcendental idealism, which understands lawfulness as a feature only of the phenomenal world and not of the noumenal world depends on how the latter is understood.

I take it that at least in the discussion of perceiving consciousness and in the discussion up to this point of understanding consciousness, Hegel has implicitly been accepting that one cannot understand these shapes of subjective consciousness without considering the character of the objective world that they take themselves to be consciousness of (to refer to or represent). Hegel shows by what he does in presenting these shapes of consciousness that, in the idiom of the *Introduction*, we (the phenomenological consciousness) cannot understand what the objective world is *for* one of these phenomenal shapes of consciousness without at the same time understanding what is *to* each shape how things are *in* themselves. Thus it is essential to the experience of empirical consciousness conceiving of itself as perceiving that it takes the world it is perceptually conscious *of* to have the Aristotelian structure of particulars exhibiting universals. And it is essential to the experience of empirical consciousness conceiving of itself as understanding that the world it is thinking about is a world of unobservable theoretical objects and their observable expressions, or, at a later stage, allegorically simply a “play of forces” expressing an underlying “calm realm of laws.” If that is right, then Hegel is committed to the sense-dependence of the concepts articulating what things are *for* a shape of consciousness of concepts articulating what is *to* it what things are *in* themselves. One cannot understand the concept explanation unless one also understands the concept law, and so on for the concepts that explicate more primitive forms of understanding, and perceiving consciousness. (What things are to empirical consciousness understanding itself as immediate sense-certainty is sufficiently

undifferentiated to make things more difficult in this case, but I take it Hegel also thinks one cannot understand the feature-placing language that would make explicit what what things are *for* sensing consciousness is *to* it without understanding also a world of immediately sensible features that is *to* it what things are *in* themselves.)

What is new with objective idealism is the converse sense-dependence claim: this form of understanding consciousness realizes that it cannot make sense of the notion of law except in terms that appeal to processes of explanation. The objective idealism that emerges for understanding consciousness is accordingly a *reciprocal* sense-dependence of the concepts articulating the *objective* things and relations and the concepts articulating the *subjective* thoughts and practices of understanding consciousness itself. Given what has gone before, this reciprocal sense-dependence is not limited to laws governing the objective world and the inferential manipulation of thoughts by subjects in explanation. So we can infer from the discussion of perceiving consciousness's experience of an objective world with an aristotelian metaphysical structure that the concepts of property or universal, on the one hand, and the concept of what one is *doing* in classifying by applying predicates, on the other, are reciprocally sense-dependent. One cannot properly understand either one with understanding the other. Similarly, the concepts of object or particular, and the concepts of referring with singular terms are reciprocally sense-dependent. Given the notion of fact that perceiving consciousness bequeaths to understanding consciousness, we can add the reciprocal sense-dependence of that concept on the side of the objective world with that of the practice of claiming (or judging) using declarative sentences on the side of subjective practices.

So the fine structure of the commitment I am calling "objective idealism" is articulated into a triad of triads that stand to one another in relations of reciprocal sense-dependence:

Objective Ontological or Metaphysical Categories:	Subjective Pragmatic Categories:	Syntactic Categories:
Objects/Properties or Particulars/Universals	Referring/Classifying	Singular Terms / Predicates
Facts	Asserting, Claiming, or Judging	Declarative Sentences
Laws	Explaining as Inferring	Universally Quantified Subjunctive Conditionals

Asserting the sense-dependence of the concepts object and particular on concepts articulating the use of singular terms is rejecting the possibility of general reductive explanations along the lines Quine suggests when he defines singular terms as expressions that “purport to refer to just one object.”⁴¹ He takes it that the concept object is clear and independently accessible, and so can be appealed to in explaining that of singular term. Perhaps this is so for middle-sized bits of dry goods, but the idea begins to break down when pressed at the margins. Thinking about candidate objects such as musical notes, holes, *ressentiment*, theological phenomena such as irresistible grace, historiographical objects like the Enlightenment or modernity, concepts, cognitions, abstracta...overloads intuitions about objects and particulars and drives one inevitably to thinking about the use of the terms in question. That is why in the *Grundlagen*, Frege finds it necessary to address the vexed question of whether numbers are objects by investigating whether numerals are used as proper singular terms.

The concepts in question come as a package, are reciprocally sense-dependent. (This is one sense the metaphor of “two sides of one coin” can take—carefully to be distinguished from the reciprocal reference-dependence sense that that metaphor can also be used to convey.) The reciprocal sense-dependence of fact or state of affairs and the concept of what one is doing in asserting by uttering sentences explains why traditional grammars attempted definition of “declarative sentence” as “the expression of a whole thought” is of such profoundly little pedagogical use in helping students distinguish sentences from sentence-fragments and run-together sentences. (Are we to think that those who are slower to master the concept are devoid of “whole thoughts”? Or is coming to recognize them as such inseparable from learning how to use sentences?) Philosophers who think it is definitional

⁴¹ *Word and Object* [MIT Press, 1960], p. 96.

of declarative sentences that they represent states of affairs make a corresponding mistake, as becomes clear from the metaphysical puzzlements that ensue (for instance, in the *Tractatus*) when we ask about the nature of the states of affairs represented by probabilistic or normative statements, by statements about future contingents or impossible objects like the least rapidly converging sequence. Invocation of truth-aptness or even truth-makers in this connection properly acknowledges, if only implicitly, the in-principle relevance of issues concerning the use of the sentences in question.

For Hegel, all these issues come down to the concept of determinate negation. The metaphysical analysis by perceiving consciousness of particulars and universals in the Aristotelian structure of objects with many properties stays as resolutely on the objective side of the intentional nexus as can be. As we saw, all he requires is the distinction, inherited from empirical consciousness understanding itself as sense-certainty, between two kinds of difference: compatible or “mere, indifferent” difference and incompatible or exclusive difference (contrariety). This distinction, he takes it (by contrast to the British empiricists) is a feature of immediate sense experience. Appealing only to these two kinds of difference, Hegel is able, in a *tour de force* of analysis and construction, to elaborate, on behalf of perceiving consciousness, a richly articulated structure of facts about the possession by particulars of sense-universals: objects with many observable properties. (We have seen in this chapter how the discovery that implicit in the idea of observable properties differing in the two basic ways is the idea of objects as bearers of those properties, objects that are *not* observable in the same sense the properties are leads on to a generalized notion of theoretical entities, including properties and indeed facts, which are only inferentially accessible.)

This order of explanation shows that for Hegel *if* there is a reciprocal sense-dependence relation between the notion of material incompatibility that applies to properties, hence facts, and is expressed in laws in the objective realm, and the notion that applies to classification by applying predicates, making claims and judgments, and explanatory inferences in the subjective realm of thought, *then* corresponding sense-dependences will hold at all of the levels retailed in the chart above. The idea that there is such a sense-dependence does not make its first appearance with the discussion of the relation between law and explanation. Even though the experience of perceiving consciousness is conducted to the extent possible, in accord with the self-understanding of that form of empirical self-consciousness, at the level of what is perceived, the perceiving of it plays a substantial role even there. This is registered in the title of the chapter, “Die Wahrnehmung; oder das ding, und die Täuschung.” “Täuschung” here is invoking the

experience of error, which does not just come in here at the phenomenological level, as we follow the development of various versions of perceiving consciousness driven from one to the next by the inadequacy of the first.⁴² The experience of error is also an important element of perceiving consciousness' own understanding. For what one must *do* in order thereby to count as taking or treating two properties as incompatible in the objective sense made explicit by alethic modal locutions is precisely to acknowledge the obligation, when one finds oneself committed to attributing those properties to one and the same object, of *rejecting* at least one of those commitments. One does that by treating those commitments as incompatible in the sense made explicit by *deontic normative* locutions: one cannot be *entitled* to both *commitments*.

[T]he one who is perceiving is aware of the possibility of deception [Täuschung]...His criterion of truth is therefore *self-identity*, and his behavior consists in apprehending the object as self-identical. Since at the same time diversity is explicitly there for him, it is a connection of the diverse moments of his apprehension to one another; but if a dissimilarity makes itself felt in the course of this comparison, then this is not an untruth of the object—for this is the self-identical—but an untruth in perceiving it.⁴³

An object perceived as having objectively incompatible properties is perceived as in so far such not self-identical. The diversity in question must be a matter of *exclusive* difference, *contrary* properties, not merely or indifferently different ones. Perceiving an object as diverse in that weak sense is not perceiving it as not “self-identical.” Only perceiving incompatible properties triggers the experience of “untruth.” Already here Hegel is asserting the sense-dependence of the objective alethic modal sense of “incompatible” (“exclusive difference”) with the deontic normative one. Grasping the concept of objective modal incompatibility of *properties* is treating the corresponding *commitments* as incompatible in the deontic sense that normatively governs the activities of knowing subjects. There could *be* modal incompatibilities of properties or facts without deontic incompatibilities of commitments. The concept of the former is not reference-dependent on the concept of the latter. But one cannot in principle *understand* the sort of modal incompatibility that will be codified in laws unless one understands what it is appropriate to *do* when confronted with deontically incompatible commitments. And what one must do is respond to the experience of error by making an inference that explains it, by rejecting at least one of the claims. Objective incompatibility and the experience of error are reciprocally sense-dependent concepts. Because they are, so are the concepts articulated and elaborated in terms of determinate negation, as retailed in the chart above.

⁴² This is the sort of error that is invoked in [131].

⁴³ [116]. I take it that the lesson I am claiming is taught in the *Perception* chapter of the *Phenomenology* is also in play in the “Sein und Schein” section of the *Science of Logic*. [ref.]

Hegel has no reason to deny the reference-dependence of the subjective pragmatic and syntactic categories on the ontological or metaphysical ones. Apart from laws governing facts about the exhibition of universals by particulars there would be no activities of inferring, asserting, referring, or classifying, and no subjunctive conditionals, sentences, terms, or predicates. He is not and has no reason to assert the *reference*-dependence of the categories articulating the objective world on those articulating the practices of empirical subjects. The dependence of the objective on the subjective he is asserting is a *sense*-dependence relation. The objective world is understood as *semantically* mind-dependent, not *causally* or *existentially* mind-dependent. The latter extravagant and implausible view is a kind of subjective idealism sometimes extrapolated from Berkeley and sometimes libelously attributed to Fichte. Whatever the justice of those associations, there is nothing of the sort in Hegel.

If this reading avoids pinning on Hegel an obviously crazy sort of idealism, it might be thought to court the converse danger of washing out his idealism to a view that is, to use the term Robert Pippin has used in raising this worry, anodyne. How exciting is it to be told that in order to understand lawfulness, what is made explicit by alethic modal vocabulary, one must understand the use of such vocabulary, the distinctive inferential role played by subjunctively robust conditionals? After all, anyone who has the concept law of nature has already mastered the use of a fairly sophisticated vocabulary and so can, in fact, use subjunctive conditionals. Anyone who talks or thinks at all about objects and properties (not even, perhaps, using terms corresponding to “object” and “property”, but only to “Fido” and “furry”), facts or states of affairs, must *use* singular terms, predicates, and declarative sentences. Surely that much is not a philosophical discovery.

Now it should be remembered to begin with that I am not *identifying* the “absolute idealism” Hegel propounds in the *Phenomenology* with objective idealism. As indicated above, I am analyzing absolute idealism as comprising three component theses: conceptual realism, objective idealism, and conceptual idealism. To assess the interest of absolute idealism as so conceived one must look at it whole. As I read this final chapter of the *Consciousness* section of the *Phenomenology*, conceptual idealism is in fact introduced here, as the triumphant final move, motivating the expository transition to the consideration of *self*-consciousness. That thesis does not arise in connection with the move from force and law to law and explanation, but with the move from the latter to the conception of what Hegel calls “infinity.” Nonetheless, the question of whether adding objective idealism as a reciprocal sense-dependence thesis to conceptual realism represents a

substantial conceptual and doctrinal advance, and if so why, is a legitimate one. It can be addressed precisely by thinking of what it adds to conceptual realism.

Conceptual realism is the thesis that the objective world, the world as it is in itself, no less than the realm of subjective activity that shapes what the world is for consciousness, is conceptually structured. John McDowell is endorsing conceptual realism in this sense when he says in *Mind and World* that “the conceptual has no outer boundary,” beyond which lies a nonconceptual reality.⁴⁴ As I have been reading him, Hegel’s version of this thought has a hylomorphic shape. Conceptual contents can show up in two different forms: an objective form and a subjective form. The first is a matter of how things are in themselves, the second how they are for consciousness. These are reality and its appearance, the phenomena and the noumena. Because both forms are conceptually articulated, and because the very same content can show up in both forms, “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,” as Wittgenstein puts the point.⁴⁵ This is how the genuine knowledge constraint is to be satisfied: the criterion of adequacy on semantic theories that requires they not rule out on conceptual grounds the possibility that what things are for consciousness can be what they are in themselves.

Hegel fills in this hylomorphic picture by offering a nonpsychological conception of the conceptual. According to this conception, to be conceptually contentful is to stand to other such contentful items in relations of material incompatibility and consequence (“determinate negation” and “mediation”). This definition is sufficiently abstract and generic that it need not appeal to what it is to *grasp* a conceptual content in order to say what such contents are. It invokes only very general relations among contents. For objective states of affairs, including facts, these are alethic modal relations of noncompossibility and necessity. They are expressed by statements of laws of nature: mammalian life is impossible at 1085° C, and copper necessarily melts at 1085° C. For subjective thinkings of conceptually contentful thinkables, these are

⁴⁴ [ref. to *Mind and World* [Harvard University Press, 2nd edition] [poss pp. 27, or 34-46?]]

⁴⁵ *Philosophical Investigations* [ref.] §95.

deontic normative relations of entitlement and commitment. The claim that the mammal is alive is incompatible with the claim that its average temperature is 1085° C, and the claim that the temperature of the copper is above 1085° C commits one to the claim that it not solid.

Objective idealism adds to this hylomorphic version of conceptual realism a thesis about the interdependence—in the sense of *sense*-dependence—of these two forms that conceptual contents can take: alethic and deontic, objective and subjective. In order to grasp the concept conceptual content, which can take the two forms, it turns out one must grasp those two forms in their inter(sense-)dependence. On my analysis, the objective idealist reciprocal sense-dependence thesis takes on its substantial and distinctive significance for Hegel in the context of the three other strategic commitments already mentioned: conceptual realism, an understanding of conceptual articulation as consisting in relations of material incompatibility and consequence, and the hylomorphic rendering of that latter view as a response to the requirement set by the genuine knowledge condition. It is the latter that brings the intentional nexus into play, in the form of the relation between what things are in themselves and what they are for consciousness.

Against this background, in asserting the reciprocal sense-dependence of the alethic modal metaconcepts we use to make explicit the conceptual structure of the objective pole (what things are in themselves) and the deontic normative metaconcepts we use to make explicit the conceptual structure of the subjective pole (what things are for consciousness), objective idealism marks a significant advance. For it provides additional clarification and substantial development of this hylomorphic form of conceptual realism. It tells us something important about the relations between the two different readings (alethic and deontic) of “incompatible” and “consequence,” namely, that one crucial such relation is reciprocal sense-dependence. That is, the necessary relation between the different alethic modal and deontic normative senses of “relations of material incompatibility and consequence”—the kind of unity-through-difference they stand in as forms of one kind of content—is just the intentional nexus: the relation between thought and what it is about, between sense and referent.

Objective idealism tells us we can't understand the ontological structure of the objective world, its coming as law-governed facts about the properties of objects, except in terms that make essential reference to what subjects have to *do* in order to count as taking the world to have that structure—even though the world could have that structure in the absence of any subjects and their epistemic activities. The sort of unity-through-essential-difference that objective idealism attributes to conceptual contents by explaining how their objective (alethic modal) and subjective (deontic normative) forms are related is fundamentally different from that grasped by understanding consciousness in its thought about force and its expression and force and law. Those both concerned only the objective pole of the intentional nexus: what is known or represented. Objective idealism concerns both poles, the relation between what things are objectively or in themselves and what they are subjectively or for consciousness. And both of those conceptions of understanding consciousness concerned themselves with reference-dependence relations as well as sense-dependence relations. (That is part of what is wrong with reifying laws as superfacts, represented in a sense that is assimilated to the sense in which ordinary empirical facts—whether immediately observable or not—are represented.) So it is *not* the case that the relation of law to explanation and the distinctive kind of identity between its moments it involves should be thought of as *modeled on* those earlier relations and the kind of identity they involve. Rather, a kind of self-referential metaclaim is being made. It is only by understanding the kind of identity of content requiring diversity of form characteristic of the reciprocal sense-dependence of concepts articulating the structure of the objective represented world and concepts articulating the structure of the epistemic activity of representing subjects that one can understand the kind of identity constituted by the necessary relation of diverse moments characteristic of the objective pole of that intentional relation: the relation of force to its expression, the play of forces, and of both to the laws that govern them. (Or, of course, the subjective activity of epistemic subjects, but that direction in which the reciprocal sense-dependence can be exploited is hardly surprising or controversial.) That is the lesson of this experience of understanding consciousness. There is a final further lesson on the way: the conceptual idealism Hegel propounds under the heading of “infinity.” That is the topic of my next lecture.

End

[8758 total in Part Two. 5,123 in large print.]

[17657 total in chapter. 9,174 in large print.]