

Hegel and the Overcoming of the Understanding¹

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The purpose of the present essay is to explicate the basic movement which the Understanding exercises upon itself at the end of the chapter on "Force and the Understanding" in Hegel's *Phenomenology of Spirit*. Unlike many other commentators on the *Phenomenology*, I hope to show how Hegel's argumentation in this chapter applies not merely to the Newtonian paradigm (to which Hegel makes explicit reference), but to any paradigm which involves the objectivistic presuppositions of the Understanding.

I. Introduction: *On the Way to Understanding*

The movement at the end of the chapter on "Force and the Understanding" effectively brings about the completion of the first major division of the *Phenomenology*, entitled "Consciousness."² Since this first major division deals with those forms (or compartments or *Gestalten*) of consciousness which insist upon maintaining a strict separation of the knowing subject and known object, the overcoming of Consciousness is simultaneously the overcoming of what might be called "naive objectivism." With this movement, the phenomenological odyssey enters into the realm of Self-Consciousness.

1. I would like to thank Professor H. S. Harris of York University, Toronto, for reading and commenting on an earlier draft of this paper. Of course, I am solely responsible for the remaining shortcomings of the "final product."

2. Hegel, no doubt, made things more difficult for commentators when he decided to use the same word (*Bewußtsein*, or 'consciousness') to refer to the subject of the *Phenomenology* ("The Science of the Experience of Consciousness") as a whole, as well as to those specific modes (in the first three chapters) in which the subject of the *Phenomenology* attempts to separate itself from its object. When referring to *Bewußtsein* as the subject of the *Phenomenology* as a whole, I will not capitalize, but write simply, 'consciousness'. When, on the other hand, referring to *Bewußtsein* in the more restricted sense – as it pertains only to the first three chapters of the *Phenomenology* – I will capitalize: 'Consciousness'. When I refer to "perceptual consciousness," of course, I am referring to a form of consciousness which falls under the first major division of the *Phenomenology*, "Consciousness." Naturally, in some cases, the distinction will not make much difference at all.

As Hegel noted in his "Introduction" to the *Phenomenology*, consciousness "tests" itself by comparing its knowledge, or Concept (*Begriff*), with its object: "the examination consists in seeing whether the Concept corresponds to the object."³ If the two do not correspond, "it would seem that consciousness must alter its knowledge to make it conform to the object" (para. 85). But if consciousness does do so, it effectively changes the object as well, since the object and knowledge are intrinsically linked to one another. The alteration of either one is likewise the alteration of the other. Thus, regardless of whether we call the objective pole or the subjective pole of the relation the real "in-itself," the comparison of the two, and subsequent alteration of either, necessarily yields a new and different relation between object and subject. If this were not the case, the phenomenological development which propels the various forms of consciousness beyond themselves could never take place (para. 84-85). Of course, Hegel can say all this only because he already knows that the truth of Consciousness is *Self-Consciousness*.

To continue this general propaedeutic, I would like to pick up from the attitude of Perception, that form of Consciousness which immediately precedes the form to be developed in the chapter on "Force and the Understanding."

By the end of the first chapter of the *Phenomenology*, Perception has emerged as the truth of Sense-Certainty. Very briefly stated, the essential shortcoming of Sense-Certainty was its inability to reconcile those moments which were essential to its own certainty, namely the moments of being ("given-ness") and determinateness.⁴ As much as it tried, Sense-Certainty could not extricate itself from a fundamental contradiction: Its putative passivity was supposed to ensure an unlimited richness of sensible content, but resulted instead in the very opposite – an abstract and empty universal, or "pure being." The dialectic of Sense-Certainty gives way to a new form of Consciousness which can apparently achieve the required reconciliation of the moments of *being* and sensible *multiplicity*, namely Perception of the *Thing* and its *Properties*.

According to Hegel, however, it is the very nature of perceptual consciousness to be unable to reconcile the exclusive unity of the Thing with the presence in it of several distinct, sensible properties which can inhere in other

3. G. W. F. Hegel, *Phenomenology of Spirit*, trans. by A. V. Miller (New York: Oxford University Press, 1977), para. 84, p. 53. All subsequent references are to Miller's paragraph numbers in this translation, and appear parenthetically within the text. The more accurate rendering of *Begriff*, 'Concept', is always substituted for Miller's 'Notion'. In the several instances where I have deemed it relevant to interpolate words and phrases from the original German into the English text, the German is taken from G. W. F. Hegel, *Werke in zwanzig Bände: Theorie Werkausgabe*, ed. by Eva Moldenhauer and Karl Markus Michel, v. 3, *Phänomenologie des Geistes* (Frankfurt: Suhrkamp, 1972), and is indicated by 'TWA' followed by the page number (here, p. 77).

4. One who is familiar with the Spinozist-Hegelian principle that all determination is negation (*determinatio negatio est*, Spinoza, Letter 50; *omnis determinatio est negatio*, Hegel, *Enz.*, § 91 *Zusatz*) will recognize that this shortcoming of Sense-Certainty is rooted in its more basic failure to acknowledge the equi-valence of Being and Nothing; see G. W. F. Hegel, *Science of Logic*, trans. by A. V. Miller (New York: Humanities Press, 1969), p. 113. As Hegel notes on p. 85 of this *Logic*: "Nowhere in heaven or on earth [or alternatively, nowhere from Sense-Certainty and the 'This' to Absolute (Self-)Knowing] is there anything which does not contain within itself both being and nothing." But this is something that the ordinary consciousness of the *Phenomenology* will have to discover later in the course of its own development.

Things as well. If perceptual consciousness attends to the distinctness of the properties in the Thing, then the Thing's unity itself becomes problematic, sinking into a mere "Also." If perceptual consciousness attends to the exclusive unity of the Thing, then such unity apparently excludes also the distinct properties which are supposed to inhere in the Thing (para. 113-114). We know that the truth of the matter must be *process*, and that it is the criterion of perceptual consciousness itself – "self-identity" – which prevents it from seeing this (para. 116). But only through its own attempt to escape its internal contradictoriness can perceptual consciousness move beyond itself.

Perceptual consciousness attempts to escape its internal contradictoriness, first by attributing the moment of unity to the Thing, and of diversity to itself (para. 119). Then it tries the opposite: The Thing itself is a collection of "free matters"; but it appears as a unity for me because of the unifying activity of consciousness (para. 121). Both of these dodges fail; but their very failure now provides perceptual consciousness with ammunition for its next, and final, attempt at self-preservation. Perceptual consciousness has alternatively made both itself and the Thing into the One and the Many. Thus the objective pole – no less than consciousness itself – must contain within it the "*distinct moments of apprehension and withdrawal into self*" (para. 122; Hegel's emphasis). But while admitting process into the objective realm, perceptual consciousness still thinks that it can maintain the integrity of the Thing, and hence of itself, by distinguishing between the Thing's moments of being-for-self and being-for-another. The process which we know to be transpiring between percept and percipient is projected "outward" by perceptual consciousness in the shape of a world of inter-acting Things. Thus "the contradiction which is present in the objective essence as a whole is distributed between two objects" (para. 123).

As noted earlier, the immanent criterion of perceptual consciousness is simple "self-identity" (para. 116). Accordingly, the survival of perceptual consciousness depends upon its ability to keep separated the Thing's contradictory moments of being-for-self and being-for-another. We know, then, that Perception has superseded itself when it cannot but admit that the Thing is "*for itself, so far as it is for another, and it is for another, so far as it is for itself*" (para. 128, Hegel's emphasis). Because the criterion of perceptual consciousness is simple self-identity: "Contradiction arises [for it] when conflicting predictions can be made of the same subject matter at the same time and in the same respect. ... If it should turn out that there is a single respect in virtue of which the object both is a thing and has its properties, Perception would be in trouble."⁵ But this is precisely what happens in the failure of perceptual consciousness to keep apart the Thing's moments of being-for-self and being-for-another. So perceptual consciousness must move beyond itself; or, it already *has* moved beyond itself.

Hegel concludes his chapter on Perception with a passage which both recalls an earlier passage and anticipates what is yet to come in the course of the phenomenological development. According to Hegel, the correlative of "perceptual understanding" in the sphere of human praxis is what is known as

5. Merold Westphal, *History and Truth in Hegel's "Phenomenology"* (Atlantic Highlands, New Jersey: Humanities, 1978), p. 98.

"sound common sense (*der gesunde Menschenverstand*)" (para. 131; *TWA*, p. 105). While perceptual understanding, or sound common sense, fancies itself to be "nobody's fool" (or "solid realistic consciousness") in its comportment with its world, it is – and precisely in virtue of its objectivistic belief – quite the opposite. The abstractions which perceptual consciousness takes to be true apart from itself are really only its own creations. Precisely because of this misplaced realism, perceptual consciousness is "bandied about by these vacuous 'essences', thrown into the arms first of one and then of the other" and "led on by them from one error to the next" (para. 131). Philosophical consciousness, on the other hand, recognizes these abstractions in their untruth, and thereby achieves mastery over them.

This passage at the end of the chapter on Perception is paralleled by one which appears at the end of the chapter on Sense-Certainty. There Hegel also inveighs against the intrinsically "fetishistic" character of the kind of consciousness which views its object as a self-standing, independent entity.⁶ According to Hegel, the attitude of Sense-Certainty in the practical sphere would be represented by those whose belief in the self-standing reality of sensuous being causes them simply to "stand idly" and look on.⁷ Even the animals know better than this; for in their despair of the intrinsic reality of sensuous things, "they fall to without ceremony and eat them up" (para. 109).

From the preceding parallel passages, we can be quite certain, even at this stage, of Hegel's concern over the "fetishistic" character of that kind of consciousness which confronts the world as an independent and alien "entity" over against itself. This should be ample warning for what is still to come. In its transition from Perception to Understanding – whereby consciousness moves from the perspective of common sense to that of modern science – Consciousness may very well think that it has gotten behind the final curtain of "mere appearance" in order to apprehend the "really real" entities of "pure" theory. But if these parallel passages provide any indication of what will follow, we should expect that the realism of Understanding – or scientific consciousness – will prove to be fetishistic as well.

To be sure, the metaphysical fetishism of Consciousness is to be overcome by pulling back the curtain of being. But if this fetishism is to be overcome adequately, Consciousness must not be content with peering behind that curtain simply in order to find another "being" as an external object. Rather, it must pull back the curtain of "being *qua* being," behind which there is only nothingness, or itself (see para. 165).

II. Understanding and the Unconditioned Universal as Object

We can now examine the chapter on "Force and the Understanding" a bit more closely. As we have seen, perceptual consciousness attempts to pre-

6. I am borrowing a term here which Marx made famous in his analysis of the apparently self-subsistent and eternal nature of the commodity. I believe that the Hegelian analysis is both more far-reaching and more philosophically suggestive than the Marxian. However, I have decided to employ the Marxian term because of its unique poignancy.

7. Nobody actually takes this position, just as nobody actually takes the position of Sense-Certainty.

serve the integrity of its object and of itself by drawing distinctions between the Thing's moments of being-for-self and being-for-another. Such an attempt fails to achieve its immediate aim; however, it does have a positive significance for us, since its very failure constitutes the "determinate negation" (para. 79) which is to be taken up now as the next form of consciousness.

The inescapable unity of being-for-self and being-for-another seals the fate of perceptual consciousness, but at the same time provides the logical principle for the resulting form of consciousness. Perceptual consciousness, as we have seen, superseded Sense-Certainty precisely insofar as it *appropriated* the universal from which Sense-Certainty tried to flee. But the universal of Perception is still a universal that originates in sense, and hence "is essentially *conditioned* by it" (para. 129; Hegel's emphasis). Thus perceptual consciousness, in virtue of its intrinsic relation to sensuous *being*, can only imagine being-for-self as appearing *alongside* - i.e., as conditioned by - another being-for-self (para. 130). Now, the inescapable unity of being-for-self and being-for-another requires the emergence of a new kind of universal. This new universal, whose very principle is the unity of the moments of being-for-self and being-for-another, is necessarily a universal which cannot be perceived. It is therefore a universal of the *Understanding*, or an unconditioned universal.

According to Hegel, the new object for consciousness, the unconditioned universal, is the Concept *in principle*. Insofar as the unity of being-for-self and being-for-another is now posited, so too is the "absolute antithesis ... as self-identical essence" (para. 134). The unconditionedness of the Understanding's new object necessarily applies to content as well as form, and so there is nothing which *in principle* can be off limits to the grasp of the Understanding: "... there can be no other content which by its particular constitution would fail to fall within this unconditioned universality" (para. 134). It is for this reason that even a philosopher of the Understanding can employ the characteristically "Hegelian" argument regarding the possible limits of human knowing: "Might there not be an unknowable? If the question is invalid, it is to be ignored. If the question is valid, the answer may be 'Yes' or 'No'. But the answer, 'Yes', would be incoherent, for then one would be knowing that the unknowable is; and the answer, 'No', would leave everything knowable."⁸

The shortcoming of the Understanding, however, is that it cannot account for its own ground in asserting this; that is, consciousness as Understanding cannot comprehend the reason for its own native commensurability with everything that is. It will be able to do so after realizing that, as consciousness, it is *itself* everything that is (see para. 233). But in order to come to that realization, consciousness must first be able to see everything that is as a living self (see para. 162); if consciousness is to reach the standpoint of Reason, it must first become *Self-Consciousness*. Because the Understanding still insists upon regarding its object, the unconditioned universal, as an *object* (para. 132), it has not yet comprehended the real meaning of what it is to be "unconditioned." Or as Hegel writes, "because this unconditioned universal is an object for consciousness, there emerges in it the distinction of form and content" (para. 135).

8. This argument is taken from the neo-Thomist philosopher Bernard Lonergan's *Insight: A Study of Human Understanding* (New York: Harper and Row, 1978), p. 352.

I believe that the preceding also suggests reasons for the very ambivalent treatment which the Understanding receives throughout the Hegelian corpus. Insofar as the object of the Understanding is the unconditioned universal, there can be no limit to the Understanding's theoretical achievements; there is, *in principle*, no being which lies beyond the grasp of the Understanding. But insofar as the Understanding still regards the unconditioned universal as an *object* for it, there can also be no limit to the Understanding's manipulation of things; there is, *in principle*, no being which may not be placed at the Understanding's disposal.⁹ Thus the Understanding's intending of the unconditioned universal in the form of otherness is both the reason for its great achievement, as well as for its frightful "voraciousness." Once again, we can use this terminology meaningfully, only because we already know that the truth of Consciousness is Self-Consciousness, that the truth of intentionality is desire.¹⁰

Because of the Understanding's spontaneous (though uncomprehended) intending of the unconditioned universal, there is quite literally no being in heaven or on earth which can quell its appetite. Any putative external limitation would simply be confronted by the Understanding as another being to be understood, explained away, appropriated. What the Understanding has yet to learn, however, is that the truth of "being" is not merely "being" (or external other). It can learn this only through the nothingness of its own object. Such will be the positive significance to be derived from the emptiness of scientific "explanation."

III. An Exegetical Concern

As we have seen up to this point, the phenomenological development has depended upon the ability of consciousness to grasp as a unity those moments which it had previously held apart. For example, perceptual consciousness has had to acknowledge that the truth of Perception is really Force. In order to preserve the integrity of its object, Consciousness as Perception had to hold apart the two moments which were really internally united in the Thing itself: the moments of being-for-self and being-for-another. But once it finally grasps these two moments in their essential unity, perceptual consciousness is no longer perceptual consciousness, but Understanding; and the object of Consciousness is no longer the Thing and its properties, but Force. The whole of the perceptual relation (i.e., between percept and percipient) is thus now grasped together in a unity (see para. 136).

At the beginning of the chapter on "Force and the Understanding," Hegel suggests that we should expect the same kind of transformation to take place with the Understanding itself; two moments, the separation of which is essential to the survival of Understanding as a form of consciousness, will have to be seen in their unity. While the Understanding holds correctly that the truth of Perception is really Force, it still fancies that the Force which it

9. This is what is referred to in much modern theory as the problem of "instrumental reason" (*Zweckrationalität*).

10. I am borrowing this terminology (i.e., "intentionality" and "desire") from Joseph C. Flay, *Hegel's Quest for Certainty* (Albany: SUNY Press, 1984).

grasps is something other than itself. While it sees that the truth of Perception must be a synthesis of percept and percipient (para. 136), it has yet to acknowledge the need for an even more radical synthesis (that between knower and known) if it is to be adequate to itself.

Because of the very fact that the truth of Consciousness is Self-Consciousness, then, what may be spoken of as the objective activity of Force in the external world is equally to be comprehended by us as the immanent activity of consciousness itself. As Hegel tells us: "*For us*, this object has developed through the movement of consciousness in such a way that consciousness is involved in that development, and the reflection is the same on both sides, or, there is only one reflection" (para. 132, Hegel's emphasis).

Because of the necessarily two-tiered form of argumentation, however, we are also faced with an ostensible problem. Hegel articulates the movement from Consciousness to Self-Consciousness in terms of the theoretical entities peculiar to the science of his day (e.g., Force), and in his crucial section on the Inverted World, he refers directly to the Newtonian paradigm of universal attraction (para. 156). The problem, then, is that Hegel's basic argument is expressed in terms of a scientific paradigm which we now know to be obsolete.

This itself does not vitiate the basic point of Hegel's argument, but it can be misleading. For some of Hegel's apparently central claims here are based directly upon the obsolete Newtonian paradigm, e.g., the claims (1) that universal gravitation really is *universal*, and hence expresses the Concept of law itself (para. 150); and (2) that space and time remain only superficially connected in scientific law (para. 153). As a matter of fact, these two claims are intrinsically related to one another: Newton's law, which can be expressed as " $F = ma$," presupposes that m , or mass (or space), is a constant (or absolute); in Einstein's law of general relativity, mass (and therefore space itself) is redefined as a function of velocity, so that when a moving mass approaches an appreciable fraction of the speed of light (which is designated as c), the value of mass *qua* mass (and hence the simple equation $F = ma$) must be modified. Because mass (space) is really a function of (i.e., is *the same* as) velocity (time), and *vice versa*, Newton's law of universal gravitation is not really universal, but holds only in cases where moving bodies do not come close to the speed of light.¹¹

The point of all this is that Hegel could hold that universal gravitation really was universal (and thus expressed the bare Concept of law), and hence could make it the paradigm for his argumentation here, only because space and time had not been shown in their intrinsic unity by any scientific law in his day. But this can create the false impression that the Hegelian argument has only a limited significance. In any case, it leaves open the question of how the Hegelian argument is to be applied to science that no longer utilizes the concept of Force at all.

In what follows, I shall attempt to articulate Hegel's basic argument concerning the Understanding in terms of the general concept of law as a specification of relations between "objective" qualities of things. This, I hope, will

11. Another way of saying this is that Hegel did not fully appreciate the *determinateness* of Newton's law of universal gravitation. So far from being *completely* general and superficial, the law has been shown in our own day to be a *limiting* case of an even more general law. Given the science of his day, Hegel could not have foreseen this. However, as I hope to show, this does not damage the point of Hegel's basic argument.

make it a bit easier to comprehend the general significance of Hegel's point concerning the Understanding and its claims to objectivity.

*IV. Overcoming Objectivism:
Scientific Law and Relations*

The essential advance of the Understanding over Perception consists in its ability to apprehend reality, not merely as it is sensibly conditioned (para. 129), but as a network or system of intelligible *relations*: Thus the unity of being-for-self and being-for-another, which led to the demise of Perception, is the very principle of the Understanding itself. While Perception (*Wahrnehmung*) must simply take (*nehmen*) the perceptible Thing as it is, the Understanding can discover and articulate the intelligible relations which lie "underneath," and which hence give rise to, the perceptual experience in the first place. As we have seen, the truth of the Thing is Force.

It is this ability to grasp relations which in fact grounds the Understanding's own claim to objectivity. The relations grasped by the Understanding are supposed to hold for all possible observers, i.e., under all possible observational contexts; they are supposed to be "objective."¹² As Galileo argued against the Aristotelians of his day, the distance traversed by a falling body would always be proportional to the square of the time required, no matter how heavy the body, or where the experiment happened to be conducted; the law of falling bodies specifies an "objective" relation which is supposed to inhere between aspects of the things themselves. Or, to use a more modern example, the Understanding's explanation of the colored object in terms of wavelengths of light (also a mathematical relation) will be valid for all observers, regardless of the state of the different observers' eyes, the lighting by which they see, or the speed with which they happen to be in relative motion. This, too, is supposed to be an "objective" relation.

In his critique, Hegel asks whether those entities which are related by the Understanding in scientific explanation can really be known to have any necessary connection with one another; if not, then scientific explanation is not really *explanation* at all, but merely *re-description* of the phenomena as they happen to appear to Consciousness, i.e., logically indifferent to one another. If this is the case, then the Understanding's claim to objectivity is equally unwarranted. For it may be the case that the relations as specified by the Understanding do not necessarily hold under *all* conditions, but have merely held thus far, for a more or less limited number of observers, under more or less limited conditions.

It is well known that these intrinsically inter-related issues of necessary connection and objectivity were the very issues which occupied Hume and Kant in their respective philosophical investigations. What will be important here is just how Hegel appropriated the philosophical problem left him by Hume and Kant, and claimed to have overcome it by uncovering the inner

12. What is manifest here is the tendency in the English empiricist tradition – a tradition which Hegel is trying to overcome – to identify what is correct or normative with what everyone happens to believe or do. In this respect, even the scientists are no better off than the men of "sound common sense."

dynamism of the problem itself. For Hegel, Hume was correct in showing that necessary connection was not a feature of things "out there," and Kant was correct in identifying the source of necessary connection with knowing subjectivity itself. However, Hume failed to demonstrate exactly why necessary connection could not possibly be a feature of things "out there," and Kant did not correctly comprehend the subjectivity which was the source of necessary connection (i.e., the lawfulness of nature). Hegel's intention was to overcome both of these failings by overcoming Understanding itself.

We can begin by asking with Hume, Kant, and Hegel just how the determinate terms related within a given scientific law can be known to have any necessary connection with one another and hence how the law is known to be "objective." A common maneuver of the Understanding is to say that the relations specified in a given law will be known to hold, "provided that" certain external conditions are met. As Hume showed, this kind of move on the part of the Understanding does not really settle the issue of necessary connection and objectivity, but simply pushes it back a step. For if the relations specified by the law are supposed to hold under certain external conditions, one can equally ask just what guarantees the necessity of connection between the elements in the law and the provisory external conditions. But Hegel intends to go beyond Hume here, and show just *why* the Understanding's strategy does not work. His procedure is not to deprive the Understanding of its strategy, but to "look on" and see just where that strategy leads.

If the Understanding's appeal to a provisory external condition can really help in preserving the necessity and objectivity of the law, it must be an appeal (whether explicit or not) to something that is infinite, absolute, and irreducible to anything else within the law. For example, the law of falling bodies can be known to hold in *every* case, only under the condition that the distance above the earth's surface from which the body begins its fall is always negligible with respect to the radius of the earth itself;¹³ otherwise, the gravitational pull which the earth exercises would not be the same for all bodies, and neither would the rate of falling. The only way to guarantee this negligibility is by assuming the radius of the earth to be infinitely large. Or, Kepler's laws of planetary motion can be known to hold in *every* case, only under the condition that the mass of the sun is infinitely large and independent of everything else in the system; otherwise, the gravitational pull of the planets would influence the sun itself (no matter how slightly), and Kepler's laws would not hold. Similarly, Newton's law of universal gravitation can be known to hold in *every* case, only under the condition that space and time are absolutes, and not reducible to anything else. Moreover, Einstein's principle of general relativity can be known to hold in *every* case, only if it is postulated that the speed of light is absolute and not relative to anything else.

In each case above, the Understanding's attempt to preserve the immanent necessity and hence objectivity of its own law requires it to posit the subsistence of something that is infinite or absolute, independent of anything else within the system of relations specified in the law; and the same would be required for any other scientific law. But because of this, Hegel wants to ar-

13. That is, one must assume that the position from which the body begins its fall *with respect to the center of the earth's gravity* is a constant.

gue, that which is posited as absolute and independent of the other elements within the law necessarily *makes its way back into* the law itself. Precisely because it is posited as something absolute and non-reducible to anything else in the system of relations, it makes its way back into the law as just another term which is *superficially* related to the others; for that which is "absolute" and "independent" can be related only in a superficial manner to that which is other than itself. As we have seen earlier, space and time remain only superficially related in Newton's law, precisely because they are assumed to be absolutes. Or, in Einstein's law, energy and the speed of light remain superficially related, precisely because the speed of light must be assumed to be an absolute which is irreducible to anything else.¹⁴

If that which must be assumed by the Understanding is truly non-reducible to the other relations specified within the law, yet nevertheless relevant to the truth of the law itself, then necessarily it must find its way back into the law. In Hegelian terminology, what is posited as infinite and independent of the system of relations specified in the law is not the good infinite which transcends the system of relations by embracing it, but the bad infinite which, because of the very fact that it is posited as subsisting independently and outside of the law itself, makes it way back into the law as just another element contingently related to the others. Or, in other words, the category of the absolute and independent "other," which is nevertheless relevant to the truth of the system, is contradictory.

The Understanding, then, may very well think it can "patch up" the lack of necessary connection among the elements in its own law, and thereby maintain its own objectivity, by referring to something absolute and independent as a condition outside the scope of the law itself. But what the Understanding consciousness grasps apart, we can comprehend as a unity. Thus we know exactly *why* the Understanding's maneuver is bound to fail. The movement whereby the Understanding posits something as external to the relations specified within its own law, and that whereby it experiences a lack of determinate necessity within its own law, are not two different movements, but one and the same. That very move which is intended to preserve the determinate necessity and objectivity of the law is the same which guarantees that there can be no such thing. Hume correctly showed the futility of the Understanding's attempts at preserving the necessity and objectivity of its laws, but he did not fully comprehend the reason behind such futility.

Now the dialectic which is manifest in the Understanding's attempt at formulating laws which are necessary and objective is no different from the dialectic which is behind the Understanding's attempt at preserving itself as an "objective" form of consciousness in general. The appeal by scientific consciousness to that which is self-subsistent and non-reducible to anything within a given law is the same as the Understanding's appeal to an "objective reality" which is self-subsistent and non-reducible to anything within the Understanding itself. The Understanding may think that its appeal to what is outside (of the law or itself) may help warrant its claim to objectivity. But we know that the effect is just the opposite. With every appeal by the Understanding to what is self-subsistent and outside (of the law or itself), there necessarily

14. The same can be shown with respect to the laws of Galileo and Kepler.

arises within the Understanding (or law) a "new" form of internal difference (contingency) in need of being "explained." The category of the thing-in-itself outside of consciousness, which is supposed to guarantee the objectivity of consciousness' own concepts, is also a contradictory category.

Consciousness as science or Understanding may think it can ensure the objective reference of its constructs, that it can guarantee the necessary connectedness of those elements within itself, by appealing to what is outside of itself: "My theoretical constructs do have objective reference, provided that there really is something 'out there' to which they correspond"; or, "This law will hold necessarily, provided that this independent fulfilling condition is first met." But the more the Understanding attempts to defend its claims in this way, the more it finds its own claims undermined. Such attempts by the Understanding can only lead consciousness into an infinite regress of further "explanations." Of course, its entrapment in such an infinite regress, its apparent dependence upon new "facts" requiring further explanation, will only serve to confirm the belief of Understanding consciousness that it is somehow at the mercy of Forces which are at work outside of itself. But because we can grasp the ground of the Understanding's plight, because we grasp the intrinsic *unity* of the Understanding's appeal to an "other" and its experience of unexplained internal difference, we can point the way to the Understanding's own self-supersession.

As we have seen, every appeal by the Understanding to something self-subsistent and external gives rise to a new form of internal difference; every "explanation" of necessary connection or objectivity by an appeal to what is external merely results in the introduction of new differences (into the law or consciousness) whose necessary connection must also be explained. But equally, it is the experience of bare internal difference (the lack of necessary connection) which led to the Understanding's appeal to externality in the first place. In actuality, we must now see that one moment does not really "lead to" or "result from" the other; the two are logically the same.

The movement which the Understanding consciousness experiences as a temporal exchange between its apprehension of bare empirical differences (to be "explained") and its own "explanation" of the empirical differences (in their "necessary" connectedness) is comprehended by us in its unity. That is to say, the Understanding's own striving for "objectivity" (through the specification of putatively necessary connections among objects) takes place entirely within consciousness itself; that which appears immediately to Consciousness as a mere "being" is already a form of negative self-relation.

To answer the question that the Understanding could not answer about itself: The Understanding is commensurable with the totality of being only because the two are not separate from one another, but part of a prior unity. Any attempt to explain this commensurability under the assumption of a subject-object split will only lead to an infinite regress. Just as the very Thing-ness of the Thing depended on a prior unity called Force, so too the very "objectivity" of the Understanding depends upon a prior unity of knower and known, which Hegel calls "Life."

The basic point can be illustrated by way of the examples used earlier: Galileo's law of falling bodies (the supposedly objective relation between distance and time) can be known to hold in every case (i.e., be objective) only

under the condition that the distance above the earth's surface from which the body begins its fall is always negligible with respect to the radius of the earth itself. That is, the position from which the body begins its fall with respect to the center of the earth's gravity must be a constant. But it is a constant for all of us observers only because, as observers, we ourselves maintain a constant relation to those things which come under the scope of the law. All of the bodies which *we* on earth can drop will be close enough to the center of the earth to have the same rate of falling. The "objective" truth of the law, then, depends on a prior synthesis of subject and object.

Newton's law, of course, goes beyond Galileo's and explains what Galileo could not. But the truth of Newton's law depends on the external condition that space and time are absolutes, not reducible to anything else. Similarly, space and time are absolutes for us only because *our* relative velocity with respect to the things *we* observe does not approach the speed of light. Again, the truth of the law depends on a subject-object synthesis. In turn, Einstein's law goes beyond Newton's and explains what Newton could not; but the truth of his law is also supposed to depend on some external and independent condition, namely the absoluteness of the speed of light. For that very reason, its truth also necessarily presupposes a prior synthesis of subject and object.

In a word, as long as the Understanding appeals to what is external to itself (and as Understanding it must) as a condition for its own truth, then necessarily the truth must be a synthesis of subject and object. Science is "objective" only because knowing subject and known object are part of a prior synthesis. Kant correctly showed that the "objectivity" of science depends on the activity of the subject, just as much as it does on the "object"; however, his grasp of knowing subjectivity in finite terms prevented him from moving beyond the impasse of the Understanding, since a finite subjectivity is still condemned to view its object as an external "other."

The same point can be made from another angle. As we have seen, the Understanding marked an advance beyond mere perceptual consciousness through its ability to "explain" the Thing and its Properties in terms of the intelligible relations lying "underneath." Thus the secondary qualities of color, sound, taste, and so forth could be explained by the Understanding in terms of the relations among primary qualities: extension, solidity, etc. However, if the explanatory scope of the Understanding really is unlimited, there can be nothing preventing these so-called primary qualities from being further analyzed and explained in terms of relations among even "more primary" primary qualities; and the process can go on *ad infinitum*. As long as the primary qualities themselves are determinate and hence capable of "explaining" the secondary qualities, they are also capable of being "explained" in terms of relations among even more basic qualities "underneath" them. There is, in principle, no being which may not be relativized or "explained" in terms of something else.

However, if everything can be thus relativized, then the Understanding's actual knowledge of "objective reality," its supposed commensurability with all being, would appear to be groundless. The Understanding cannot overcome the incipient relativism by an appeal to some determinate ground which is "most basic" or primary; for if such a ground were determinate and determinable, it could be related to (i.e., explained in terms of) something else. Nor could we make something completely indeterminate the supposed

ground of our knowing; for that which is completely indeterminate would be, for that very reason, unknowable to the Understanding. The Understanding could not be said to have justified its native commensurability with everything that is, if such "justification" depended on its knowledge of the unknowable.¹⁵

Precisely because the Understanding can "explain" anything whatsoever (by relating things to one another), it cannot explain its own ability to "explain," i.e., it cannot explain its own commensurability with being. In other words, the limitlessness of its explanatory scope leads it to an infinite regress (a plurality of laws, an unconnected Many) which calls into question the ground of its own knowledge of being. If it is to find adequate grounding for its own knowledge, the Understanding must go beyond the specifying of relations between determinate things, and acknowledge the relation which is not contingent upon any other – the relation which is no relation at all, but negative self-relation. In order to do this, it would have to think "contradiction" (para. 160); but then it would no longer be the Understanding. The principle of the Understanding's own limitlessness (which leads it into an infinite regress of "explanations") must become the principle of its "self-limitation."

So far from presupposing a particular scientific paradigm as "final," then, the Hegelian argument implies the claim that there can be no final paradigm in science. Hegel's own aim is not to "patch up" the infinite regress or emptiness of the Understanding by providing a more comprehensive "explanation" of empirical phenomena; for that would be to fall back into the position of the Understanding itself, i.e., to make Self-Consciousness another form of Consciousness over against Consciousness itself, and not the good infinite which moves beyond Consciousness by embracing it. Or, in terms used by Hegel in his section on the Inverted World, the second supersensible world, which manifests the principle of Self-Consciousness (the good infinite), must not be seen as something merely "outside" of the first supersensible world, but must overarch the first by including it within itself.

With the foregoing explication in mind, I would like to turn now to Hegel's own sometimes obscure articulation of the development leading up to the section on the Inverted World. Once again, I shall start with the concept of scientific law.

V. Explanation and Force

Hegel's discussion of law in the chapter on "Force and the Understanding" begins with a familiar idea: Law, writes Hegel, is "the *stable* image of unstable appearance"; accordingly, the supersensible world to which such law refers must itself be "an inert (*ruhig*) realm of laws" which, though beyond the perceived world of change, "is equally *present* in it and is its direct tranquil image" (para. 149, Hegel's emphasis; *TWA*, p. 120). His language here immediately reminds one of Plato, though there is a significant difference to be noted. For here, it is the unchanging beyond which is the copy or image of the changing world, and not *vice versa*.

While there is "incessant change" in the world of appearance, the realm of law which is supposed to explain such appearance is itself "inert," so

15. Such is the common source of Locke's know-not-what and Kant's thing-in-itself.

that law necessarily leaves something out of account: Appearance "retains *for itself* an aspect which is not in the inner world."¹⁶ This defect in the law – its inability to explain – must be remedied by the Understanding itself as law-giver: "This defect in the law must equally be made manifest in the law itself" (para. 150). Thus the indeterminateness of law as immediate must give way to some further determinateness. However, what is determinate cannot be law in general but only *a* law. The determinateness thus results in a plurality of individual laws. Unfortunately, such a plurality also happens to contradict the very principle of the Understanding itself, whose object, the unconditioned universal, must be a fully intelligible *unity* (para. 150; *TWA*, p. 121).

To recover the unity of its object, the Understanding must let the several laws collapse into one, and here Hegel gives us the example of universal gravitation, or abstract universal Force. The problem with this kind of law, however, is that it must leave out the specific characters of those individual laws which it is supposed to unite. A law which does this must be so general and superficial that it says virtually nothing at all. In its attempt to explain everything through a single law, the Understanding ends up explaining nothing at all. A law of such generality can only express the "*mere Concept of law itself*," namely that everything maintains a constant difference (*einen beständigen Unterschied*) – or fixed relation – to something other than itself (*zu Anderem*) (para. 150, Hegel's emphasis; *TWA*, p. 121). However, this amounts to the bare assertion – which the dynamism of the Understanding necessarily presupposed from the start – that all reality is conformable to law. Instead of finding an expression for universal reality as such, this kind of law only expresses what is already presupposed in the basic dynamism of the Understanding (as lawgiver) itself, namely that everything can be related to something else, or "explained."

Furthermore, the mere Concept of law as universal attraction is "turned against *law* itself" (para. 151, Hegel's emphasis). In the universal law, differences are taken up immediately and hence as indifferent to one another. Insofar as they are indifferent to one another, they belong merely to "sensuous being," and there is no indication of how, in fact, they are conformable to law as such. To recover its true meaning – namely that all reality is conformable to law – the pure Concept of law as universal gravitation must be grasped in such a way that the differences which are present in it can be shown in their necessary connectedness. The differences themselves must "return again *into the inner world as simple unity*" (para. 151, Hegel's emphasis).

Thus there is a basic tension built into the Understanding's own concept of law. Or, as Hegel expresses it, law is "present in a twofold manner," once as law in which "the differences are expressed as independent moments," but also in the form of "simple withdrawal into self," or abstract Force which absorbs all difference within itself (para. 152). Law as law must retain internal

16. Para. 150, Hegel's emphasis. With this discrepancy between the changeable ("imperfect") concrete world, and the unchanging ("perfect") realm beyond, we are given intimations of the Unhappy Consciousness. Hegel's point here, as well as in the section on the Unhappy Consciousness, is that the defect resides not with changing (historical) reality, but with the unchanging realm as projected into the beyond. More specifically, the projection of a "perfect and unchanging" realm beyond is really only the result of a prior separation (or alienation) in the concrete changing realm.

difference, since law as law is nothing other than the specification of *relations* among *different* terms within itself. However, insofar as differences are preserved *qua* differences, they can appear only as independent moments, and their necessary connection with one another remains problematic. On the other hand, abstract Force absorbs differences so completely that they are no longer genuine differences; therefore the only kind of necessity which can remain is bare, empty, and tautologous (not *determinate*). Thus to speak of the "indifference of law and Force," as Hegel does, is to speak of the problem of necessary connection, or determinate necessity.

Hegel provides two examples to illustrate this indifference of law and Force: First, if "simple electricity" is the underlying Force, then the expression of difference in the forms of positive and negative electricity belongs to the realm of law. It is common to say that simple electricity "has the property" of expressing itself in this way; but *that* electricity should divide itself in the manner represented by law is itself not shown to be necessary. It is true enough that positive electricity logically implies negative, and *vice versa*; but the *reason* for electricity's dividing itself in this way at all remains unexplained. That is: "Electricity, as *simple Force*, is indifferent to its law" (para. 152, Hegel's emphasis).

Hegel's other example comes from the science of mechanics, where simple Force would be gravity, and law would be the relation specified between time and space. In this law, motion is divided into space and time, but these two remain only superficially related, so that "space is thought of as able to be without time [and] time without space" (para. 153). The necessity of the division of motion into space and time is not demonstrated. On the other hand, motion considered as simple Force, or gravity, contains no such difference at all; it is the non-analyzable and "in-different" (i.e., non-differentiated) universal.

Hegel reminds us that we cannot resolve the problem of necessary connection simply by appealing to other determinate Forces, i.e., we cannot base necessity on "the determinateness of *being through another*," for that would only commit us once again to a "*plurality of specific laws*," or an infinite regress of determinate explanations (para. 152, Hegel's emphasis). As Hegel notes, by this stage we have already left behind the plurality of specific laws in order to consider the concept of law as law. That is to say, the True must be a unified whole; the experience of an infinite regress of "explanations" must be ultimately unsatisfactory to a consciousness whose scope is supposed to be co-extensive with the totality of being.

The problem of necessary connection, then, can be expressed in terms of a disjunction: *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" (para. 154). However, what the Understanding consciousness grasps apart *we* can see as a unity; and in fact the overcoming of the Understanding will involve the grasping of the two sides of the disjunction in their unity. In other words, the elements within law appear to the Understanding as indifferent to one another *precisely because* universal Force is seen as indifferent to division or difference as such. The problem with the Understanding is that it must apprehend things in its own finite (disjunctive) terms. Or, in Hegel's words, the difference has yet to be seen as "difference *in its own self*" (para. 154, Hegel's emphasis).

At this point, the Understanding can acknowledge the insolubility of the problem of necessary connection, or the inescapably tautologous nature of its own "explanations." But it does not (and, as Understanding, *cannot*) grasp the significance behind this aporia. Such is the standpoint of Hume who (as we have seen) could point out the futility of looking for necessary connection in things "out there," but could not draw out the positive significance of such futility. He could point out the inevitably tautologous nature of "scientific explanation" (i.e., the fact that such explanation is only *re-description*), but he could not go beyond that – and he could not do so precisely because he did not transcend the viewpoint of the Understanding itself.

Hegel continues: If in fact the laws which the Understanding formulates are re-descriptions of the phenomena as they appear in their regularity, then it must be acknowledged that all the movement of "explanation" takes place within the Understanding itself. Likewise, "the to and fro of change which before was outside of the inner world and present only in the appearance, has penetrated into the supersensible world itself," which was supposed to be free of change altogether. The movement of the explaining is thus the same as the movement of the phenomena being explained: "What is present here [on both sides] is not merely bare unity in which *no difference* would be *posited*, but rather a *movement* in which a *distinction is certainly made but*, because it is no distinction, is *again cancelled*" (para. 155, Hegel's emphasis).

Thus the first law, according to which everything maintains a constant difference with respect to something else, requires a complementary law: "that *like* becomes *unlike* and *unlike* becomes *like*" (para. 156, Hegel's emphasis). That is to say, simple selfsameness, the attraction of like by like, is insufficient to explain the constancy of *difference*, and hence the lawfulness and knowability of nature (i.e., the commensurability of the Understanding and being). If everything were only like itself, all difference – and hence the constancy of difference itself – would be obliterated. We would end up with the pure and bare necessity of "Being." As Hegel writes in his *Philosophy of Nature*, § 262, *Zusatz*: "If matter attained what it seeks in gravity, it would melt into a single point."¹⁷ The constancy of difference, and hence the orderliness and knowability of nature, requires that each thing contain its own opposite. He adds in the same paragraph: "The reason why this [bare] unity is not realized here, is because repulsion, no less than attraction, is an essential moment of matter."

Of course, the "scientific explanation" of why the planets do not all come crashing in on one another (i.e., why difference is sustained) involves an appeal to the principle of inertia. However, as Hegel continues in the *Philosophy of Nature*, § 266, *Anmerkung* (Miller, p. 52), to appeal to inertia is simply to fall back once again into the empty principle of identity which explains nothing but only perpetuates the infinite regress of provisory external conditions: "X will remain what it is unless ..."

Logically speaking, the reason why the Understanding cannot account adequately for its own commensurability with the totality of being is because it is unable to comprehend diversity and unity (here law and Force) together. The only kind of unity (*qua* unity) which it can conceive is a bare and indeter-

17. G. W. F. Hegel, *Philosophy of Nature: Being Part Two of the Encyclopaedia of the Philosophical Sciences (1830)*, trans. by A. V. Miller (Oxford: Clarendon, 1970), p. 46.

minate universal which contains no difference within itself; and the only kind of difference which it can conceive is difference over against an "other," so that if there is any diversity, there must inevitably arise a disconnected plurality of laws, an infinite regress of "explanations." The Understanding cannot think the One and the Many together; it cannot think "contradiction" (para. 160). This is also the reason why the Understanding frets needlessly over the "problem" of how the Many can come from the One (para. 162). The Understanding's grasp of the subject apart from the object (its grasp of the subject as finite) is the epistemological manifestation of its inability to grasp the One and the Many together.

Hegel continues: The universal Force, which had been indifferent to all difference and hence to law itself, must now manifest the same "absolute transition" which we had seen earlier in the play of Forces: "... the selfsame, viz. Force, *splits* into an antithesis which in fact proves *to be none*; for it is the *selfsame* which repels itself from itself, and therefore what is repelled is essentially self-attractive, for it is the *same*" (para. 156, Hegel's emphasis). The identity of soliciting and being solicited in the play of Forces is the identity of knower and known in cognition. As Hegel had written in the "Introduction," if we were to succeed in removing from our knowledge that which is due to the "instrument" of our knowing, we would only end up where we (hypothetically) began in the first place: knowing nothing at all (para. 73). If it were not for the unity of opposites in constant tension, subject and object would either collapse into a single distinction-less blur or else fall away from one another indifferently. In either case, the resulting experience of completely empty being (or nothingness) would be the same; that is to say, knowing (which involves the unity and difference of subject and object) would be impossible.

As it first emerges, Hegel warns, the second supersensible world may appear to be something simply "other" and outside of the first (para. 159). But the point here is not to "explain" the native commensurability of Understanding and being (the lawfulness and hence knowability of phenomena) by appealing to another form of "being" outside of consciousness. For that would not allow consciousness to transcend the standpoint of mere "explanation." The aim, rather, is to transcend "explanation" by comprehending the necessarily tautologous nature of explanation. The law of the first supersensible world, which merely asserts that there is a constancy of difference, is to be comprehended by the law of the second, which grasps such constancy of difference as a unity of opposites. The unconditioned universal cannot simply be an object ("being") for consciousness, but must be an infinity which includes both subject and object.

By the same token, the emergence of the second supersensible world at this stage should not be seen as a "magical" event, motivated somehow by that which is outside the phenomenological development up to this point. For the first supersensible world *already* is an unstable and contradictory world, insofar as it is supposed to be the stable, tranquil image of the changing, perceptual world (para. 149). Change must enter into this supersensible world precisely because it is supposed to be an unchanging image of something *other* than itself. Hegel suggests this early on: "... with every change of circumstance," the law of the supersensible world, which is supposed to remain self-same, "has a *different* actuality" (para. 150, my emphasis). What is unchanging

cannot be a copy of the changing, but must have change within itself (it must be a good infinite). Of course, the idea that the supersensible world is an unchanging copy of something other than itself is a function of the Understanding's own naive "objectivism"; so that the movement whereby consciousness allows change into the supersensible world is the same as that whereby it abandons its naive objectivism.¹⁸

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18. My references to secondary literature have been scant; for most of this literature which has any bearing on what I have written is too general to merit any explicit mention. But the three commentaries which I find to be the most interesting and suggestive (even though I cannot agree entirely with all of them) are those by Zimmerman, Gadamer, and Flay. Robert Zimmerman, in "Hegel's 'Inverted World' Revisited" (*The Philosophical Forum* 13, 4 [Summer 1982]: 342-370), offers a fair enough Aristotelian (i.e., anti-Platonic) reading of Hegel's section on the Inverted World. But I would say that the chief weakness in Zimmerman's commentary is his failure to acknowledge the extent to which Hegel is attempting to go *beyond* Aristotle as well. Hans-Georg Gadamer, in "Hegel's Inverted World" (pp. 35-53 of *Hegel's Dialectic: Five Hermeneutical Studies*, trans. by P. Christopher Smith [New Haven: Yale University Press, 1971]), likewise reads Hegel in light of Aristotle's critique of Plato, but also acknowledges the essential difference between Hegel and Aristotle. Thus Gadamer notes that even Aristotle's response to the question *ti esti?* could be no different from Plato's. Finally, Joseph C. Flay, in "Hegel's 'Inverted World'" (*The Review of Metaphysics* 23, 4 [June 1970]: 662-678), holds that Hegel's argument is essentially a *reductio ad absurdum*, and that the positing of a second supersensible world is the absurdity which leads one to abandon the dualism implied by the supersensible. There can be no doubt that Hegel is arguing against dualism here, but I would not agree that the argument rests on a *reductio* of the kind that Flay suggests. Rather than rejecting the supersensible altogether, Hegel is arguing in favor of a supersensible that (*contra* the Understanding) contains movement within it (i.e., that mediates between sensible and intelligible and is not merely "beyond").