

October 4, 2017

Handout for *Force and Understanding*

Outline of Force and Understanding:

- I. Overview [132]-[135].
- II. Force [136]-[142].
 - a) Force and its Expression [136]-[137].
 - b) Independent Opposing Forces [138]-[140].
 - c) Reciprocal Action, the Play of Forces [141]-[142].
- II. Law, the Supersensible World, and Explanation [143]-[155].
This introduces the First Supersensible World (FSW): the “calm realm of laws.”
- III. The Inverted World [156]-[160].
This is the Second Supersensible World (SSW) and the First Inverted World (FIW).
- IV. The Infinite [161]-[165].
This is the Third Supersensible World (TSW) and the Second Inverted World (SIW).

Stages in the argument:

1. From sense universals (observable properties) we turn to “forces”, which stand in allegorically for *theoretical entities* generally.
2. Understanding the status of theoretical entities turns out to depend on understanding the status of *laws of nature* relating them.
3. Understanding what laws are turns out to depend on understanding the role they play in practices of *inference* and *explanation*.
4. The progression is to ever more radical *holism*, culminating in a holistic picture of the relations between the subjective and objective poles of the intentional nexus (“Infinity”, objective and conceptual idealism). This final conception rationalizes the expository transition to considering *self-consciousness* as our next topic.

Three views about the status of theoretical entities:

1. Instrumentalism.
2. Invidious Eddingtonian Realism (this is the one Hegel concentrates on).
These are criticized for running together the *observable/theoretical* distinction with the *appearance/reality* distinction (though the two views line these up in complementary ways).
3. The distinction between observable and theoretical entities is methodological and epistemological, not ontological.

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

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.

What is intelligible in this sense is determinate states of affairs, articulated by modally robust relations of material incompatibility and consequence, which are made explicit by statements of law.

Although describing and explaining (predicting, retrodicting, understanding) are *distinguishable*, they are also, in an important sense, *inseparable*. It is only because the expressions in terms of which we describe objects, even such basic expressions as words for perceptible characteristics of molar objects, locate these objects in a space of implications, that they describe at all, rather than merely label. The descriptive and explanatory resources of language advance hand in hand. [CDCM §108]

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 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.

Two questions about the status of laws:

1. Should Newton's second law, $F=ma$, be understood as α) analytic and *a priori*, because definitional of force and mass, or β) an empirical synthetic claim?
2. Are laws descriptions? Do they state superfacts?

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*. [PhG 153]

[O]nce the tautology 'The world is described by descriptive concepts' is freed from the idea that the business of all non-logical concepts is to describe, the way is clear to an *ungrudging*

recognition that many expressions which empiricists have relegated to second-class citizenship in discourse are not *inferior*, just *different*. [CDCM §79.]

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 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.

His response 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] [PhG §154]

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].

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. [PhG 158]

The inverted world is not a kind of world: it is what you get if you "invert" a world.

The First Inverted World is equivalent to contemporary possible worlds semantics, paradigmatically as conceived by David Lewis.

The argument of the closing passages of *Force and Understanding* has three phases. It starts with a characterization of the lessons to be learned from consideration of the final form of the supersensible world understanding takes itself to confront: the inverted world. The second phase consists of remarks about the structure of identity in and through difference that Hegel calls “infinity.” The concluding phase is the claim that we can see (though it cannot yet) that in conceiving its object on the model of such an infinite structure, understanding consciousness has put itself in a position to recognize itself in its object—that it has actually become a form of consciousness that does not merely presuppose self-consciousness, but *is* a form of self-consciousness.

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

Certainly, I put the ‘opposite’ here, and the ‘other’ of which it is the opposite there; the ‘opposite’, then, is on one side, is in and for itself without the ‘other’. But just because I have the ‘opposite’ here in and for itself, it is the opposite of itself, or it has, in fact, the ‘other’ immediately present in it. Thus the supersensible world, which is the inverted world, has at the same time overarched [übergriffen] the other world and has it within it; it is for itself the inverted world, i.e. the inversion of itself; it is itself and its opposite in one unity. Only thus is it difference as inner difference, or difference in its own self, or difference as an infinity. [160].

What is wrong with the inverted world [verkehrte Welt] is not the inversion, but the reification of it into a world—just as what was wrong with the conception of a supersensible “calm realm of laws” was the reification of laws into superfacts.

The alternative he is recommending in place of descriptivism is a distinctive kind of *expressivism*. Modal claims, it is true, do not simply describe the actual. (Laws are not superfacts.) But that is not because they describe something else. It is because they express something implicit in the actual. They express the exclusive differences in virtue of which any actual state of affairs is the state of affairs it is.

At this final stage, “what is, for the Understanding, an object in a sensuous covering, is *for us* in its essential form as a pure Notion.” For that reason we can see that “the Understanding experiences only *itself*,” not something experienced as other than itself. [*PhG* ¶165]. Since this Notion of infinity is an object for consciousness, the latter is consciousness of a difference that is no less immediately cancelled; consciousness is for its own self, it is a distinguishing of that which contains no difference, or self-consciousness. [*PhG* ¶164].