

Science, Teleology, and Interpretation

PHYSICALISM AND CAUSALISM

A philosophy of mind is supposed to tell us, among other things, the nature of the concepts we use in our descriptions and explanations of mental phenomena. Behaviorism, as a philosophy of mind, tells us that concepts of the mental are really concepts of complicated complexes of dispositions to overt behavior. Functionalism maintains that concepts of the mental are functionally defined concepts of states of the individual differentiated by their typical causal role in the overall (internal and external) behavior of that individual. Both of these modern philosophies of mind tell us that mental concepts are not concepts of occurrent properties of mental substances but concepts of complex *causal* properties.¹ Fundamental to both philosophies is a commitment to the priority of the causal, physical order; our concepts of the mental are to be made sense of by showing how the mental fits into the causal order of nature.

The associationist psychology of the Enlightenment that Hegel was so familiar with is a bit harder to specify exactly, since mental states tended to be reified into entity-like *ideas*. Nonetheless, it is clear that the associationists share the commitment to the priority of the causal with their present-day counterparts. This is clearly confessed at the very inception of associationism, when Hume com-

1. Functionalism itself is actually mute about whether the functionally defined concepts of the mental are instantiated in a mental or a material substance—but they are not, in any case, concepts of purely occurrent states.

compares his own project with Newton's and his principles of association with Newton's law of gravitation.

In this chapter I argue that Hegel offers us a significantly different understanding of the basic nature of our concepts of the mental and that, unless we recognize this, his entire project will remain opaque to us. Hegel's disagreement with the standard reading of our concepts is not confined to our concepts of the mental, however; Hegel gives us a thorough reinterpretation of the systematic interrelations among all our concepts, though we confine our argument here to his view of the mental.

Since Descartes (certainly at least since Newton), the natural sciences (especially physics) have provided the model of empirical knowledge that has dominated philosophical reflection. But the natural sciences have served as a model in different ways. Some philosophers have tried to mimic in their own philosophies of mind what they took the structure of physics to be. Thus the resemblance Hume apparently saw between his philosophy and Newtonian mechanics was the postulation of elementary atoms with the primitive property of attracting other atoms and complexes thereof. Other philosophers have taken physics to be the *sole* exemplar of empirical knowledge and have therefore sought to *reduce* the mental to the physical. For many philosophers, though, physics and the natural sciences provided a model, not through the particular claims physics makes, but as an example of proper scientific methodology. To such philosophers physics is exemplary because of the clearly intersubjective, repeatable nature of the evidence employed, the rigorous formulation and generality of its laws, and so forth. If there is a science of the mind, according to this group of philosophers, it must be consistent with physics and the other natural sciences and like them in these general, methodological respects, even if it does not ultimately reduce to physics or physiology. And if our present concepts of the mental cannot find a place in such a science of the mind—well, so much the worse for them.

We could try to understand Hegel's project in the philosophy of subjective spirit, indeed in the *Encyclopedia* as a whole, along these lines, but with little hope of success. In some sense, surely, Hegel is committed to psychology's being consistent with physics, for they are both aspects of *one* world; but "naturalizing" psychology is not the way to understand their consistency, according to Hegel.

The scientific philosophers share the assumptions that all objects and events arise within one causal order and that physics is the most general and complete description of that causal order. The principle of these philosophical physicalists is that to understand something fully (i.e., scientifically) is to locate it within the causal order, showing how it depends on the objects and events physics deals with. These assumptions are not shared by Hegel; he offers us a very different picture of how the world hangs together. It is not that Hegel denies that there is a sense in which all the other objects and events of the world depend on those dealt with in physics—the existence of the physical is a necessary condition of the existence of biological and spiritual phenomena in his system as well. But this dependency relation is not the right one to be concerned with; that is, Hegel denies the conceptual and ontological *priority* of the causal, physical order. In particular, truly understanding something is not, according to Hegel, a matter of locating it within the causal order, but a matter of locating it within the self-realization of the Absolute, a teleological structure that transcends the physical. The teleological order, not the causal order of efficient causes, is the ultimate touchstone. This change (which leaves untouched a great deal of the hierarchical ordering of disciplines on which both Hegel and the physicalist can agree) means that Hegel's philosophical enterprise is quite different from that of the philosophical physicalist.

Philosophical physicalism is very familiar, perhaps even the dominant view in contemporary philosophy. Its most venerable opponent is straightforward dualism—the claim that some of our concepts (usually our concepts of the mental) have nothing in particular to do with the causal, physical order but are about a disjoint order of things. The mental order is usually conceived to be itself a causal order, but mental and physical causation are held to be different species of the same genus. Cartesian dualism is thus as committed to the priority of the causal order as philosophical physicalism; unable to fit everything into the physical order, it accepts the existence of another, disjoint causal order to account for the leftovers.

Hegel does not want to accept either position, so he rejects their common assumption, the priority of the causal. What he proposes in its place is the priority of the teleological. To support this position

Hegel breaks with his predecessors in proposing a different analysis of the concept of teleology and a different approach to legitimating the concepts we use.

OUR RELATIONSHIP TO NATURE

Two Approaches to Nature

Hegel's strategy for arguing the priority of the teleological order set forth in his system is basically straightforward: he claims that the approach of the physicalistic philosopher is really a one-sided abstraction from a more adequate, integrated, teleological approach. Since the physicalistic approach is only an abstraction from this more adequate approach, it must also be thought of as posterior to it.

Hegel differentiates two relationships we can have to nature, the practical and the theoretical. Neither is adequate in isolation; both point beyond themselves to an integrated view of nature which sublates them (that is, preserves in a unified view what is true and valuable in both while abandoning their individual weak points).

In our practical relationship to nature we behave as individual beings for whom nature is a means, an instrument for our purposes. Natural things themselves are (correctly) treated by us as devoid of intrinsic purpose, but we (incorrectly) treat them as if we can impose our purposes on them without resistance, as if their purpose is to serve us. In this practical relationship to nature we are concerned, not with the universal characteristics of things, but with turning the individual things immediately at hand to our own individual purposes:

Two further determinations are immediately apparent here. (a) The practical approach is only concerned with the individual products of nature, or with certain aspects of these products. . . . Nature itself, as it is in its universality, cannot be mastered in this manner however, nor bent to the purposes of man. (b) The other aspect of the practical approach is that our purpose overrides the objects of nature, so that they become means, the determination of which lies not in themselves but in us. (*PN* §245, *Zusatz*)

The practical relationship to nature affords us only a thoroughly subjective, highly limited point of view which, when generalized, quickly leads to absurdity. To believe, for instance, that cork trees exist in order to provide us with bottle stoppers is just "silly" (*PN* §245, *Zusatz*).

The second relationship to nature we commonly adopt, the theoretical relationship, is equally inadequate.

In the theoretical approach (a) the initial factor is our withdrawing from natural things, leaving them as they are, and adjusting to them. In doing this we start from our sense-knowledge of nature. If physics were based only on perception however, and perceptions were nothing but the evidence of the senses, the activity of a natural scientist would consist only of seeing, smelling, hearing, etc., so that animals would also be physicists. . . . (b) In the second relation of things to us, they either acquire the determination of universality for us, or we transform them into something universal. The more thought predominates in ordinary perceptiveness, so much the more does the naturalness, individuality, and immediacy of things vanish away. As thoughts invade the limitless multiformity of nature, its richness is impoverished, its springtimes die, and there is a fading in the play of its colours. That which in nature was noisy with life, falls silent in the quietude of thought; its warm abundance, which shaped itself in a thousand intriguing wonders, withers into arid forms and shapeless generalities, which resemble a dull northern fog. (*PN* §246, *Zusatz*)

The theoretical approach to nature is intended to capture nature as it is in itself, but it can grasp nature only by transforming it into an abstract structure of forces, laws, and genera (see *PN* §246, as well as *EL* §2off.). The theoretical approach to nature therefore cannot fully succeed in its intention to grasp nature as it is.

The practical approach to nature is concerned only with the immediate individuality confronting it, and the theoretical approach is concerned only with the abstract universality of nature. Neither approach is adequate for understanding our actual intercourse with nature or for understanding nature itself. We act within nature understandingly, rationally. We do not normally combine the practical and theoretical approaches by alternating between them; rather, they are more properly conceived of as abstractions from a total and fundamentally sound relation that we normally bear to nature.

Constructing a balanced and adequate approach to nature is a problem, a problem contemporary philosophers must face as well. I shall bow to contemporary practice and put the point in a linguistic mode. The pure language of science contains no practical vocabulary; it is not a language in which one can deliberate and formulate intentions. The language of science can be used within such deliberations to formulate some of the premises of our practical reasoning, but it is not itself sufficient for deliberation. It is, as well, a thoroughly objectifying language, without resources for the expression of the subjective. Theory aims, apparently, at a thoroughly objective, impersonal comprehension of the world; practice, however, seems essentially tied to the subjective, personal agent. The language of science cannot, therefore, be the sole language we use in confronting the world unless we abandon our humanity and subjectivity.

The language of practice, however, is not complete either. Practical reasoning and the proper formulation of intentions require an understanding of the world's independence of us, of its universal patterns. Our subjective intentions make sense only against an independent, objective world. But this means that a language of pure practice is impossible; it must be conjoined with a theoretical language. A language of pure theory may seem to be still a viable possibility—but it is not hard to see that it must also be conjoined with a language of practice if it is to function in the practice of science.

As I have already intimated, this distinction between the theoretical and the practical is connected to the equally important distinction between the objective and the subjective. Statements from the theoretical point of view are in the objective mode: "Unsupported bodies near the surface of the earth fall at $\frac{1}{2}gt^2$." Although there can be no theories without theorizers, the theorist per se never shows up *within* the theory (at least outside quantum mechanics). The fact that the objectivity of the theory emerges from the subjectivity of the theorist is an *extratheoretical* fact. The theoretical and the objective approaches to the world go hand in hand.

Statements from the practical point of view usually wear their subjective origin on their sleeve, for they point to human purposes, often explicitly. Even the "objective practice" enjoined by ethics has to root in our personal motivational structures in order to be real-

ized. Unlike theory, practice cannot even superficially ignore the subjectivity of the agent without obvious incoherence.

This general conflict between subjective and objective, theoretical and practical approaches to the world has been addressed in different shapes by various present-day philosophers. Thomas Nagel has spent a great deal of time exploring the conflict between the subjective and the objective points of view.² Wilfrid Sellars has noted the distinction between the theoretical and the practical languages with which we engage the world and has suggested that they must be conjoined into a "synoptic vision" of the world.³ Hegel, however, would strongly disagree with the idea that the two can be simply conjoined—a deeper synthesis must be reached, one in which the two approaches or languages do not simply coexist alongside each other but inform each other and meld into a complete and unified vision of the world.

Objective Purpose

According to Hegel's diagnosis of the tension between the practical and theoretical approaches to nature, the proper resolution of that tension calls for a concept of *objective purpose*. The practical approach to nature is overly subjective, considering nature only in relation to practical, subjective purposes. Any attempt to adapt the subjective, practical approach to the universality and objectivity of nature must involve a significant revision of the concept of purpose, however; simply extending the concept of purpose applicable to individual subjectivities to cover the whole world (say, by taking nature to be God's instrument) cannot prove satisfactory. An objective purpose cannot be just a very big subjective purpose.

Hegel has provided us with a relatively detailed analysis of the concept of purpose in his two *Logics*. I summarize his analysis here.⁴ In Hegel's time, purposes were standardly treated as arising from the beliefs and desires of some subjectivity. Knives are sharp in order to cut (or knives are for cutting) because someone has created

2. Thomas Nagel, *The View from Nowhere*.

3. Wilfrid Sellars, "Philosophy and the Scientific Image of Man," in *Science, Perception, and Reality*, pp. 1–40.

4. For details see, W. deVries, "The Dialectic of Teleology," *Proceedings of the Hegel Society of America*, 1980.

them with the intention that they serve as cutting devices. A subjectivity suffuses its own purposes into a distinct and often recalcitrant objectivity in all such cases. Such a conception of teleology, however, can account for the purposiveness of natural things only with difficulty. If the heart beats in order to pump blood (or the heart is for pumping blood), then there must be someone who created hearts with the intention that they serve as pumps. But that someone is clearly not any particular, finite subjectivity. There must be some subjectivity that stands outside the finite and objective realm and works its will upon it, namely God. Hegel thinks that this line of thought presupposes a completely unsupportable conception of a transcendent God. If there is natural teleology, Hegel realizes that it cannot be understood by any extension of the subjective model.

Indeed, reflection on the subjective or intentional model of teleology is sufficient to demonstrate the need for a concept of natural or objective teleology, Hegel believes, for intentional teleology actually *presupposes* natural teleology. In the intentional model of teleology a subjectivity works its will upon a distinct objectivity; normally it does so by employing an instrument, a means for its end. But since the instrument is itself in the objective order, how is the subjectivity to work its will upon it? There must be something that bridges the gap between the subjective and objective realms, normally the body. The possession of a body, a single, unified entity with both subjective and objective aspects, is the necessary presupposition of intentional teleology. But the body itself is teleologically saturated: the heart beats in order to pump blood; the body moves in order to nourish itself. Intentional or subjective teleology is built on the natural, objective teleology of the organism.

In all teleology there is at least implicit reference to the good. In intentional teleology this reference is itself intentional; intentional action aims at a subjectively valued end. In natural, objective teleology activity aims at the objective good of the organism. But Hegel does not conceive of the natural good of an organism as a matter of its mere survival or even the survival of its species; rather, Hegel believes that for each thing-kind there is an ideal paradigm of that thing-kind of which all the individuals of the kind can be seen as approximations. Natural organisms (unlike artifacts) seek to realize their ideal on their own, with more or less success in individual cases. All natural teleology, including the beating of the heart in

order to pump blood, is subordinate to the striving of the individual to realize as best it can its ideal type. According to Hegel's analysis, all natural teleology is at heart self-realization.

Hegel accepts Kant's second criterion for a *Naturzweck*, namely, "that its parts should so combine in the unity of the whole that they are reciprocally cause and effect of each other's form" (Kant, *Critique of Judgment* §65, Bernard p. 219, Ak. p. 291). But while Kant admits that the whole is there *because* of its parts and the parts there *because* of the whole, Kant also believes that these two "because"s are radically different. The first is objective, capable of clear justification; the second "because" is at best subjective, regulative, useful in spurring further scientific research. But in Hegel's view both "because"s are equally objective. Teleological explanations appeal to the paradigm of the relevant thing-kind, but this ideal is not subjective, it is what defines that thing-kind. (Think of the Aristotelian dictum that to know something as it is "by nature" is to know it at its best.) It is not something we dream up; it is there, objectively present and explanatorily unavoidable. To say that such an ideal is merely subjective is to subjectivize the world entirely, to make the ontological structure of the world an artifact of our point of view alone. Hegel refuses to do this.

The ontological structure of the world, its articulation into natural kinds, is intrinsically teleological, according to Hegel. The behavior of organisms must be understood as a striving to realize the organism's ideal and thereby to realize itself fully. And even the articulation of the inorganic realm, as devoid of internally active purpose as the inorganic is, must still be viewed as a structure contributing to the realization of a higher end, the self-realization of the Absolute.

But even if we grant Hegel's argument that intentional teleology presupposes natural teleology, and thus grant that there are some objective purposes aimed at by organisms capable of intentional action, it certainly does not follow that there must be *an* objective purpose for the whole world. Hegel's analysis of teleology might establish the possibility of objective purpose and even the reality of some objective purposes, given the reality of subjective purposes, but it cannot justify belief in the existence of one universal objective purpose for the whole of nature. Hegel was, I believe, cognizant of this shortcoming and argued for the existence of an ultimate objective purpose from a different angle, namely, from the inadequacy of

the theoretical approach to nature. In other words, the inadequacy of the practical approach to nature justifies employment of the concept of objective purpose, and, as we shall see, the inadequacy of the theoretical approach justifies belief in the existence of a universal objective purpose.

Universal Purpose

Like most post-Cartesian philosophers, Hegel recognizes the importance and generality of physics. Nevertheless, he believes that it does not even potentially provide a complete understanding of the world. "The inadequacy of the thought determinations used in physics may be traced to two very closely connected points. (a) The universal of physics is abstract or simply formal; its determination is not immanent within it, and does not pass over into particularity. (b) This is precisely the reason why its determinate content is external to the universal, and is therefore split up, dismembered, particularized, separated and lacking in any necessary connection within itself; why it is in fact merely finite" (*PN* §246, *Zusatz*).

Hegel's complaint against the concepts used in theoretical physics is not very clear in any of his writings, partly because it is a complaint quite foreign to our modern scientific consciousness. But the basic thrust of his objection can be made sufficiently clear. The "universal" of physics is, first of all, some explanatory posit, such as a force or a law. Part of its being abstract has surely to do with the fact that it is supposedly reached by abstraction from the rich world of ordinary experience, but that is not all that is carried by the term "abstract." It is also abstract in that the various forces and laws governing the behavior of things are all independent of each other, without any intrinsic connection; whatever the ultimate laws are, they are simply primitive givens, each independent of the others. This is supposed to be a further fault with the abstract universals of the theoretical approach, but it is not immediately obvious why.

I think that Hegel is worried about two different things when he complains about the way the theoretical approach (or what he calls "the attitude of the understanding," which comes to much the same thing) divides and analyzes things into disparate and unconnected elements. First, Hegel is bothered by the idea that the ulti-

mate structure of the world might not have a unitary principle, that we might have to accept a plurality of principles as ultimate. Such a situation would always leave questions about why just those principles were ultimate givens and whether they in turn depended on some unitary and still more fundamental principle. The desire for unity and completeness seems overwhelming in Hegel, although I can see no irrefutable argument that the world ultimately must be unitary. Second, Hegel often complains that the analytic approach of the theoretical attitude loses the inner unity of the things it dissects, killing them: "Take a flower for example. The understanding can note its particular qualities, and chemistry can break it down and analyse it. Its color, the shape of its leaves, citric acid, volatile oil, carbon, hydrogen etc., can be distinguished; and we then say that the flower is made up of all these parts" (PN §246, *Zusatz*). He goes on to agree with Goethe that such an analysis "holds the parts within its hand, /But lacks, alas, the spiritual band." But Hegel does not want to suggest that philosophy is necessary because it can find something else, something above and beyond the elements isolated by the sciences, namely, the spiritual band; rather, Hegel's complaint, I believe, must be read as a complaint about the inability of the sciences to supply adequate analyses of our concepts of natural kinds. A proper understanding of the nature of a thing-kind, which is more than a mere assemblage of parts, shows that the "spiritual band" is immanent within the thing, the ideal toward which the thing strives.

The scientific, empirical analysis of a flower can show us how the flower works, how its elements interact, but it does not by itself show us why those elements together constitute a natural kind. Natural, as opposed to artificial or artifactual, kinds, are *natural* (and therefore, Hegel believes, nonarbitrary) unities. Natural kind concepts play an extremely important explanatory role for Hegel, because every chain of explanations must ultimately come to a close, and explanations end in proper classifications. Every explanatory enterprise presupposes some basic set of entities with certain primitive powers; when an explanation has been pursued down to this basic level, any further questions about the basic entities or primitive powers can only be answered by saying that they are that kind of thing. Every explanatory enterprise takes certain kinds to be natural; seeking further explanation of those natural kinds opts out

of that explanatory enterprise in favor of another, perhaps more general form of explanation. The natural kinds articulate the primitive structures of the world.

The paradigmatic natural kinds for Hegel, biological genera, consist of self-developing, self-maintaining organisms with common structures and behaviors and, most important, a common ideal type toward which the individuals strive. But the theoretical attitude analyzes the natural kinds of our world away, Hegel believes, decomposing them into an ungainly conglomeration of properties with no clear unity to them. The theoretical attitude thus constructs a world bled of all internal structure into which any organization is introduced by *us*—which contradicts the essential goal of the theoretical attitude, namely, the grasping of the world as it really is. The only remedy, as Hegel sees it, is to admit the insufficiency of the analytic tendencies of theory and, indeed, to counter them by taking nature, the world itself, to be a natural kind—that is, to be determined by an objective ideal.

This is a large mouthful to swallow. It is unclear that the inner cohesion of a natural kind must be sold short by analysis. True, in Hegel's time the organic realm did still seem quite separate from the inorganic, and impervious to chemical or physical analysis, but this barrier was initially overcome in Hegel's own lifetime and has been totally done away with in the modern development of biology, through both evolutionary theory and molecular biology. Yet even in the progress of the biological sciences the conception of teleology has not completely vanished. There are properties of organs and organisms that are still best explained by reference to the larger organic or environmental context. According to Hegel, this would signal defeat for the strictly analytic strategy of the understanding.

The notion of a natural kind is perhaps no clearer now than it was in Hegel's day, but it is certainly not evident that all natural kinds must be like biological kinds. It may be the case that through scientific research certain natural kinds, or what were taken to be such, are indeed analyzed away, but it is more important to realize that science is really offering us a new and even more powerful set of natural kinds with much broader and better defined explanatory powers. Hegel's instrumental interpretation of the empirical sciences is not by any means the only one possible.

Hegel strains the boundaries of the concept of a natural kind

when he, in effect, takes the world-whole to be a natural kind with the structure appropriate to his paradigmatic natural kinds. Perhaps the strongest thing that can be said in favor of this assimilation is that the nature of the world-whole is the ultimate explanatory dead end. If natural kinds are explanatory resting places, then, since the nature of the world-whole is the final and ultimate resting place, it must be the highest natural kind. But totalizing concepts are notoriously dangerous: the totality of finite numbers is not a finite number; the set of all sets is impossible. We have to be extremely suspicious of Hegel's rather dogmatic belief that the world-whole does form a unitary totality.

THE NEED FOR PHILOSOPHY

We are now in a position to say why, according to Hegel, the empirical sciences cannot deliver a complete understanding of the world, why philosophy itself must rework the results of the empirical sciences in order to complete the task. Even if Hegel's arguments were sufficient to justify our use of the concept of objective purpose, why would this be a matter for philosophy, rather than for a slightly revised empirical science? It is surely the case that we discover empirically what the purpose of the heart or brain is; why not believe that particular teleological connections, like particular causal connections, must be discovered by observation and experiment?

It is undoubtedly right that particular teleological connections must be ascertained experientially. Such particular connections, however, are not the ones that the Hegelian philosopher claims to be able to supply. His concern, rather, is with the *ultimate* end, the self-realization of the Absolute, the world-whole's fulfillment of its potential. As we have seen, Hegel believes that the world-whole, like every natural kind, has an ideal to live up to. But there are certain peculiarities about the world-whole kind: there can be only one world-whole according to Hegel, so it can in principle have only one instance; because the universal and ideal is what is substantial about the world, according to Hegel, the world-whole cannot in the long run fall short of the ideal, as every finite being does; because there is nothing else it could depend on, the world-whole must be

absolutely independent and self-contained, even to the point of being self-explanatory. We have questioned Hegel's right to this concept of the world-whole, but he undeniably employs it, and a full examination of his arguments to justify it would be a complete examination of virtually his entire philosophical system. Since our primary purpose here is to understand Hegel's philosophy of mind, I do not question this assumption further. Let us rather examine its role in the system.

Hegel easily grants that particular teleological connections are available to empirical discovery and confirmation, but the case is not the same with the ultimate goal. Because there are strong constraints on an ultimate goal, Hegel thinks that the nature of such a telos is not merely de facto but can be established a priori and shown to be necessary.⁵ Absolute teleology, then, is not an empirical matter. But if the world as a whole must be seen as a unity striving to realize its own particular intrinsic end, then this must affect the way we understand the empirical detail of the world as well. There is then an added dimension to the finite things of the world, for we must understand whether and how they contribute to the realization of the Absolute.

Hegel is not committed to being able to say of any individual finite thing how it contributes to the realization of the Absolute, any more than a thorough comprehension of any natural kind by itself gives one knowledge of any particular member of that kind. Hegel, as he claimed, cannot deduce Krug's pen.⁶ But there are a priori constraints on the totality, the Absolute, simply by virtue of the fact

5. For convenience I write as if the a priori–a posteriori distinction were unproblematic. In fact, though, Hegel does not believe that there is a clear distinction between the a priori and the a posteriori—not because the distinction itself is unclear, but because it is really a matter of degree. In order to do Hegel full justice, we need to abandon the a priori–a posteriori dichotomy and employ instead the notion of degrees of empirical sensitivity. I develop this notion in more detail in Chapters 2 and 3.

6. Wilhelm Traugott Krug attacked the grand systems of German idealism—Fichte was his particular target—by demanding that they deduce even something minor, such as his pen, from the system. Hegel first attacked Krug in a review article in the *Critical Journal of Philosophy*, which he edited with Schelling in Jena in 1802–3; G. W. F. Hegel, *Jenaer Schriften, 1801–07: Werke in 20 Bänden*, pp. 188–207. He returned to the problem of Krug's pen in a footnote to *Encyclopedia (PN) §250*. Hegel's answers to Krug are not consistently satisfying. A classic modern essay is D. Henrich, "Hegels Theorie über den Zufall," in *Hegel im Context*, pp. 157–86.

that it is the ultimate totality. It must be self-sufficient and independent (since there is nothing else it could depend on), capable of encompassing the variety and the conflicts of the world, unifying them without nullifying them. Perhaps most important, in Hegel's view the Absolute must also be explanatorily closed. This means, essentially, that philosophical explanations must form a neat curve in which nothing is accepted as a brute primitive. Although explanation in some of the world's dimensions may run off into infinity (this is notably the case for causal explanation), philosophical, that is, teleological explanation does not proceed into infinity. Philosophical reflection exposes the world to be a self-developing, self-realizing structure, and no further demands can be made for explanation when we have seen what kind of thing the world is. The only further demands that can be made are for further detail and deeper insight into the structure thus realizing itself. Since the concept of the world-whole as the highest kind can be constrained a priori, and since in this instance alone concept and reality, kind and instance must fully coincide, we do have considerable a priori knowledge of the structure of the world.

Hegel's argument that philosophy is an essential element in our knowledge of the world has two parallel forms, one to the effect that the sort of thing philosophy can tell us is metaphysically fundamental, the other to the effect that it is also epistemologically fundamental. These arguments can be summarized as follows:

1. Individuation and classification are both metaphysically and epistemologically fundamental. From the metaphysical point of view, there is no entity without identity, and crucial to anything's identity is what kind of thing it is. Epistemologically, one knows nothing about a thing unless one can subsume it under some thing-kind, and the most important piece of knowledge one can normally have about something is what kind of thing it is.⁷
2. Natural kinds are teleologically determined and must be understood teleologically as ideals, objective purposes of natural things.
3. Purposes can be subordinated to each other; for example, the objective purpose of the heart is to pump blood, but its pumping blood

7. Hegel still thinks of knowledge as primarily of "objects" rather than of facts or propositions. Some of the complex reasons for this tendency are explored in Chapter 12.

suberves the purpose of keeping the organism alive, which itself might subserve the purpose of keeping the species alive.

4. What something is, its kind, is determined not only by its immediate objective purpose but by its superordinate purposes as well. Similarly, understanding (completely) what something is entails understanding all the objective purposes defining it.
5. The world-whole is a kind, the ultimate kind; it is the universal objective purpose. Because it is the universal objective purpose, all other purposes are subordinated to it.
6. What anything really is depends on how it subserves the universal objective purpose, the self-realization of the Absolute. Understanding anything completely entails understanding how it helps realize the Absolute.

Given the role philosophy plays in Hegel's understanding of our world, we can see that philosophy must accordingly be essentially interpretive. We have to be a little careful with the notion of "interpretation," for the word is often used quite broadly and in such uses does not have the special meaning I reserve for it here. As I use the term, an interpretation is an attempt to understand a set of complex relations among a group of items, including part-whole relations and means-ends relations. This much is common to all uses of "interpretation," including a statistician's interpretation of a set of data. Interpretation in my special sense, however, is singled out by being explicitly holistic and making sense of the individuals and the relations in the group in terms of a projected whole with certain normative characteristics to which they are assumed to belong. The whole to which they belong must impose some real constraints on the interpretation, constraints derivative from the fact that the projected whole is assumed to have certain valuable traits. Interpretation has an essential axiological component. Furthermore, the value to be realized in the whole must in some sense have a constitutive tie to the individuals within the whole, as truth does to meaning.

I believe that this characterization separates linguistic or literary interpretation from statistical interpretation, because the statistician does not (on my purified picture of statistical endeavors) rely on an antecedent (much less a priori) projection of an axiologically characterized whole. (To the extent that statisticians do do something like that, e.g., assume that their populations have certain valuable traits, they are involved in interpretation in my sense.) Linguistic

interpretation is constrained by the principle of charity, for instance, which projects an essentially truthful belief set for each speaker or community. The whole projected in literary interpretation is much vaguer and harder to characterize, but the literary work must be interpreted, for example, as having some thematic structure and as portraying a not fully determinate but still coherent world. (Note that on this reading much of the actual procedure even in the sciences could be taken to be interpretive, if principles of conservation or least action or theoretical desiderata such as economy and simplicity were considered axiological.)

A complete understanding of the world, according to Hegel, involves comprehending a projected whole—the Absolute—and then constraining one's understanding of the particularities of the world in the light of that projected whole. Furthermore, the true character of the individuals depends on their connection to the whole; their potential contribution to the realization of the ultimate value is what makes them what they really are. Such an interpretive methodology is quite different from either a deductive or an (enumerative) inductive strategy. Yet these latter were still the dominant paradigms in Hegel's era. Kant realized the necessity of employing an interpretive strategy but relegated it to a merely regulative role in our construction of knowledge. Hegel insists that an interpretive approach to the world is an unavoidable and essential feature of a proper relation to the world.