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The Very Idea of the Idea of Nature, Or Why Hegel is not an Idealist

by *Bill Maker*

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If we speak of 'what is living and what is dead' in Hegel, it is probably safe to say that nowadays, nothing is more dead than Hegel's philosophy of nature.¹ I shall examine and question this diagnosis, contending that the *Philosophy of Nature* has been subject to a premature burial.

The Problem

While the expression 'philosophy of nature' may not be in vogue, it is nonetheless true that, since Hegel's time, philosophers have continued to speak about nature and our knowledge of it in a wide variety of ways. So what is it about Hegel's treatment of this topic that invites dismissal? Many have concluded that Hegel's overall philosophical method-his systematic approach-led him into a metaphysical idealism which is patently incompatible with an acceptable view of nature and how we know it. Thus, just what Hegel sees as the distinctive mark of truth and superiority in his philosophy-its systematic character-appears to be what renders the *Philosophy of Nature* problematic. Before examining the justice of this view, we need to see why systematicity as Hegel construes it may seem to entail metaphysical idealism.

Hegel claims that the scientific character of his system consists in the strictly immanent self-determination of its categories. According to him, the system is "absolute"- it articulates unconditional, universal, and necessary truth-because it is radically autonomous and self-contained: lacking any external foundations, what comes to be established in it is unequivocally true because fully self-grounded, not conditionally dependent on anything outside of the system which stands in need of further legitimization or accounting.²In conceiving truth in this manner Hegel makes a radical break with the philosophical tradition, for this systematic approach means that we must abandon the view that truth can be founded upon some already given

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determinacy. Instead we must see that truth which is demonstrable and legitimated is truth construed as self-determination.

It is not hard to see why a philosophy claiming systematicity may be taken to be metaphysically idealistic, especially when we take into account the fact that a major part of the system is a *Realphilosophie*. For, if the system is autonomous and self-contained, and is so because it is not grounded in any given determinacy but rather generates all determinacies from within, we must ask the seemingly fatal question: How can this philosophy speak about the real unless it makes the notorious reduction or identification of reality and thought which Hegel is widely recognized as having made?³ Doesn't systematicity engender an absolute, metaphysically idealistic identity philosophy of the most egregious and outdated form? How can a philosophy which claims to have all of its determinacies self-generated, and in a strictly immanent fashion, address the real unless the real is taken to be identical to, or a product of' or is otherwise derivative from and dependent upon, philosophical thought?

In line with current fashion in Hegel scholarship, we may not take this purported idealism to be a necessarily fatal problem as regards his social and political philosophy. Society and culture are areas of reality which, unlike nature, we can more readily regard as quasi-idealistic. In many respects, they are our creations, bearing the marks of the human mind and will. So, we might say, even a philosophy which makes the mistake of seeing all of reality as ideal will likely get some things right in these domains. But this popular piecemeal approach, which allows that Hegel's social and political philosophies may contain some truth despite the suspect character of his larger systematic claims, does not seem workable with the *Philosophy of Nature*.⁴ Hasn't it become clear, at least since the downfall of Hegel and the British Idealists, that the givens of nature are the final authority against which all theoretical claims must be checked? Doesn't the success of the natural sciences demonstrate that we more closely approximate truth when we have effaced as far as possible the marks of the mind from our account? Isn't it obvious that all legitimate philosophical talk of nature must not only acknowledge the importance of the empirical sciences and work to incorporate their results (as Hegel does) but must also - against Hegel - take these results as determinative and authoritative for philosophy?⁵ In short, isn't it obvious that a *priori* knowledge of nature can have no serious advocates? Since systematicity requires that both form and content solely from the immanent self-determination of the concept, the con-temporary conviction that nature, as an apprehended given, must be finally authoritative for all possible knowledge of nature would seem to preclude Hegel's approach-unless we begin already with the fatal idealistic conviction that thought and reality are one, in which case thought's self-determination could be regarded as synonymous or isomorphic with the given determinations of nature.

So, if we are to make a case for the worth of the *Philosophy of Nature* as a whole, and as more than just an historical curiosity, we must either accept and defend it as metaphysically idealistic, or provide a systematic reading of it which indicates how that charge can be avoided. (More than the *Philosophy of Nature* is at stake here. If the system's

account of nature cannot be defended, then Hegel's whole systematic approach cannot be defended, since a break in developmental continuity violates systematicity, and we must dismiss his idea of philosophy, if not all of his substantive claims.)

My aim is to defend the *Philosophy of Nature* by denying that it is metaphysically idealistic. I shall argue the following points:

(1) Hegel's claims about systematicity-about strict immanence, self-determination, and self-containedness-are not only incompatible with, but require us to *reject*, the received view of his philosophy as a metaphysically idealistic *Identitätsphilosophie* which dismisses the facticity of the given and absorbs all otherness and finitude into thought. In defending this view I shall argue that Hegel explicitly rejects the conceptual underpinnings of metaphysical idealism: he neither denies the genuine existence of an independently given nature, nor conceives of given nature as a product of thought, nor identifies thought and nature. On the contrary: Hegel originates the *Philosophy of Nature* with the notion of the radical *nonidentity* of thought and nature, holding that thought and nature do not even resemble one another, that they quite literally have nothing in common (and that only when first conceived in this fashion can nature be properly understood philosophically). Put positively, my first thesis is that it is just *because* of the requirements of systematicity that Hegel recognizes and conceptualizes the radical and consummate otherness of nature and thought, and works, on the basis of this recognition, to develop a philosophy which can think finitude and givenness without fetishizing them.

(2) I shall further contend that only when nature is conceived systematically can metaphysical idealism be avoided. A philosophical consideration of nature which *fails* to fulfill the demands of systematicity (which purportedly led Hegel to idealism) will in fact be genuinely idealistic in the pejorative, metaphysical sense.

What then of the truism that Hegel is an idealist, and a self-described one at that?⁶ Careful distinctions need to be drawn. We should say that, consistent with his systematic approach, Hegel is a *methodological* idealist. He regards autonomous reason, strictly self-determining thought to be the only mode of philosophically justifiable cognition. And he is a *critical* idealist in the sense that he thinks a system of autonomous reason can articulate the truth about reality-albeit critical, rather than descriptive truth.⁷ But I shall argue that these commitments to methodological and critical idealism neither follow from nor entail *metaphysical* idealism, understood as the thesis that reality is thought or thought-like, or is a derivative or product of thought. In fact, I shall show that they are thoroughly incompatible with it.

By way of explaining and defending these points I shall first argue that Hegel's whole project is rooted in and pervaded by a concern with avoiding metaphysical idealism. When we recognize how he does this, we can begin to appreciate how the *Philosophy of Nature* can speak about nature in an *a priori* fashion without being metaphysically idealistic.

Hegel's Refutation of Idealism

Hegel's refutation of metaphysical idealism is a salient feature of what, according to him, systematic science presupposes: the rejection of the opposition of consciousness.⁸ The elimination of consciousness as a foundation for philosophy is also a rejection of metaphysical idealism because we can only make sense of any version of idealism in so far as we hold fast to the fixed and irreducible distinction between thought and object definitive of consciousness: Idealism asserts that we can establish that what is seemingly other than thought is fundamentally identical with, or similar to thought, or that it shares a form or structure in common with thought, and is thus (in virtue of this sameness or similarity) knowable by thought. Any demonstration of this identity (or similarity or isomorphism) between thought and its other requires the ineliminable assumption that thought and the other are and remain determinate and distinguishable in some sense, for we can only demonstrably identify what we can meaningfully distinguish. However, as Hegel asserts in the *Science of Logic*, the *Phenomenology* culminates not in the identity of thought and object, but rather in their complete collapse into an indistinguishable indeterminacy which offers no determinate residue whatsoever.⁹ Thus, one common basis for charging Hegel with metaphysical idealism—the erroneous notion that the system begins with the assertion of a determinate, established identity (or identity-in-difference) of thought and being—requires us to interpret the system and its *Realphilosophie* from the very standpoint he not only explicitly rejects, but also regards as antithetical to systematic philosophy. That is to say, in order to read the system as metaphysical idealism we must remain committed to the perspective of consciousness, for we must hold that, as philosophical thought, the system does what consciousness claims to do, only better. To see the system as propounding metaphysical idealism we must read it as *representing* (albeit better than consciousness can) what is given, as *describing* (albeit better than consciousness can) what appears. This reading, however, is only intelligible *if* we remain committed to consciousness' definition of truth-as descriptive representation-as the ineliminable definition and benchmark. But not only is abandoning consciousness required for entering systematic philosophy, Hegel also insists again and again that representation and description are not, finally, philosophically viable modes of truth (and that only when this is recognized is true philosophy possible).¹⁰ Indeed, Hegel reiterates his rejection of idealism at the very opening of the *Philosophy of Nature* when he describes *avoiding* metaphysical idealism as the paramount task for all thought about nature. No one who was asserting that thought and nature are identical or similar would outline the problem he aims to avoid in the following way:

In thinking things, we transform them into something universal; but things are singular and the Lion as Such does not exist. We give them the form of something subjective, of something produced by us and belonging to us, and belonging to us in our specifically human character, for natural objects do not think and are not presentations or thoughts.

No metaphysical idealist could assert that what he aims to avoid is

mak[ing] Nature, which is an Other than we are, into an Other than she is ... transform[ing] things into universals, or mak

[ing] them our own ... [for] as natural objects they are supposed to have a free, self-subsistent being. This, therefore, [allowing natural objects their "free, self-subsistent being"] is the point with which we are concerned in regard to the nature of cognition-this is the interest of philosophy.¹¹

Yet even if Hegel's many attacks on the adequacy of *Verstand* and representation render a popular reading of the *Philosophy of Nature* untenable, in showing that metaphysical idealism's claims to descriptive superiority are not in accord with Hegel's understanding of his project, they do not resolve the issue. Even if we allow that Hegel intended to reject the standpoint of consciousness and metaphysical idealism, we can still contend nonetheless that what he attempts to do in the *Philosophy of Nature* -provide a *priori* knowledge of nature- is possible only if metaphysical idealism is viable, and further, that the finitude of consciousness indicates that it is not. So defending the *Philosophy of Nature* requires showing how it provides a kind of a *priori* knowledge of nature that is viable. How can the *Philosophy of Nature* be said to have anything to say about nature if it is systematic-if it neither derives its determinations from given nature nor claims that nature is thought or thought-like? After indicating how this is possible-how Hegel recognizes the facticity of given nature without reducing it to thought and also without violating systematicity- I will move on to my further claim that only the systematic approach to nature avoids metaphysical idealism.

Nature Immaculately Conceived

As I have briefly outlined, Hegelian systematicity requires strictly immanent self-determination, and such self-determination is consequent upon rejecting the model of consciousness. The question of how this initial self-determination takes place in the *Logic* cannot concern us.¹²

What must concern us is how such a process as strictly self-determining-as systematic-can somehow go beyond itself to address the real as nature. This move would seem to force systematic philosophy onto the horns of a dilemma. Either systematic philosophy can abjure metaphysical idealism and accept the cognitive authority of nature as something given to thought. (Testifying to this recognition, philosophy would determine its account of nature-and not merely coordinate it-in accordance with apprehended givens, with the results of the empirical sciences. But this means sacrificing systematicity, autonomous self-determination.) Or, systematic philosophy can deny the radical otherness of nature as a given and proceed with its immanent account, preserving systematicity. (But this means embracing metaphysical idealism.) What I shall now do is explain why this is a false dilemma, why acknowledging genuine otherness in the form of the radical givenness of nature is not incompatible with Hegel's methodological but non-metaphysical idealism.

The salient point here is that it is precisely because of systematicity-immanence-and not in spite of it, that the *Philosophy of Nature* avoids metaphysical idealism. This occurs because the *Logic's* initial articulation of radical self-determination itself requires an intrasystemic recognition and conceptualizing of *radical* otherness: that is, the recognition of an other which is not, in its determinate content, a derivative, reducible product of thought, a quasi-other, despite the fact that this content is articulated in and by thought.

First, why does the process of logical self-determination require the conceptualizing of such an other? Second, how is it that this other is radically other, not a derivative of thought, even though, as a concept of systematic philosophy, it is generated by thought? How is the system's concept of nature not metaphysically idealistic in terms of what it says about the nature of nature, while being methodologically idealistic in terms of the origin and the manner of the constitution of this concept of nature?

(1) In so far as the logical process of autonomous self-determination is to reach an immanently generated completeness, a thorough self-articulation of self-determination, it must complete itself by limiting or circumscribing itself. A completing limitation is necessary because what is being articulated is self-determination: the domain of logical self-determination must be fully determinate, complete; if what it articulates is to be self-determined, it can't omit any features of *this* mode of determination. Additionally, this completion must be a self-limitation, it must involve thought thinking what is radically other than itself, for if such an other is not conceptualized the completeness of logical self-determination cannot be guaranteed. We can only be sure that logical self-determination is truly complete by moving on to something else. But just the thinking of a radical other which the systematicity of methodological idealism requires necessitates that metaphysical idealism is abjured. If the limiting other is, in its determinate content as the concept of nature, anything less than a genuine other to self-determining logical thought, logic would not be fully determinate as self-determining, there would be no final definiteness to its domain. If nature were conceptualized as only a quasi-other, in the manner of metaphysical idealism, logical thought would not have completed itself but would pass on into a bad infinity. If the content of nature is conceptualized as being thought-like, or as a derivative product of thought-as though thought had no genuine limit-there would be no truly distinctive and complete domain of logical self-determination, and consequently no 'self to self-determination. Self-determination without limit cannot finally be self-determinate at all. (In fact, just the developmental problematic of determination in terms of a quasi-other is what is thematized, and revealed as necessarily incomplete, in the logic of essence.) So, only if strictly self-determining logical thought conceptualizes what is genuinely other than itself can it be said to fully determine itself as thoroughly constitutive of the domain of strict self-determination. Additionally, since this completing limitation is required in and by logical thought, it is immanent; no constitutive appeals to nature as an apprehended given are, or need to be, made.¹³ Speaking generally, the mode of logical self-determination must complete itself by a process of self-transformative transcendence, an *Aufhebung*: A different domain of determinacy and a different mode of determination must emerge just in order that logic can be complete and completely determinate in its own right.

(2) But how is it that this other whose conceptualization is immanently required, is genuinely other? What can genuinely other mean in systematic thought? Would not any other, just in being thinkable, be a mere derivative? We may be able to understand why systematic thought would require such an other, without being convinced that it can conceptualize it in an immanent fashion. Does not systematicity inevitably entail reductionism? Doesn't Hegel's methodological idealism lead

to metaphysical idealism? Are not immanence and genuine otherness, finitude, radically incompatible? For how can access to a genuine other be made without leaving the domain of systematic thought, without returning to finite consciousness for real data about the given in its givenness? A thorough reply to these questions will require explaining why the latter alternative cannot make the given as given accessible to thought.

Before taking up that crucial issue, we need to see just how, in coming to think the other of logic as nature, nature is conceptualized, how it attains a determinate content that is manifestly nonidealistic. I will reconstruct the move to nature to show that, while the *concept* of nature is "the Idea in the form of otherness,"¹⁴ this does not mean that we think of nature as being an idea or even like an idea, but rather just the opposite. I want to show that in the *Philosophy of Nature* the content of the concept of nature is immanently and explicitly determined initially as not being thought or thought-like, as not being a derivative of thought, and that this is just what it means first of all to think the Idea in the form of otherness. More concretely, I want to show that, in its initial specification as externality, nature is thematized by Hegel as givenness and is thus recognized as genuinely other in an immanent but still nonreductive fashion.

Consistent with its unity of form and content, the subject matter articulated in logic by a process of self-determination has been the very nature of self-determination itself. Having run through a process of self-determination in which the nature of self-determination is the substantive content being developed, the completeness of this stage of self-determination necessitates the conceptualizing of a mode or type of determinacy which is not conceived, in its substantive content, its determinate character, as self-determining at all. We think nature then by thinking the idea of a domain of determinacy which is determinate - and thoroughly so, in its own right-but not at all self-determining. How is that to be done - how are we to get a handle on what 'not self-determining' means-if we have been enmeshed in the thinking of self-determination and if systematicity precludes determinative reference to anything outside the system? The answer to that question lies in understanding why nature is more specifically determined as *externality*. And accounting for externality will also indicate how the move to nature amounts to a systematic recognition of *givenness* as radically other, a self-induced acknowledgment, by systematic, infinite thought, of the existence of something which lies beyond its purview. In other words, Hegel does just what his postmodernist critics claim he does not and cannot do. How?

Externality and an immanent recognition of givenness can be seen to emerge as follows: We are attempting to think the determinate character of a domain of determinacy which is not thought, not self-determining. In the Logic, we came initially to conceive self-determining determinacy by rejecting the idea that all possible determinacy must be minimally determinate as *given* to conscious awareness.¹⁵ So, minimally speaking, the antithesis to self-determining determinacy, logic's radical other, would be a domain of sheer given determinacy. 'This domain of determinacy needs to be conceived for logical self-determination to complete itself but, methodologically speaking, it cannot be conceived either by returning to the purview of consciousness and what it might

actually find given, or even by a formal reference to the nature of consciousness as that for which there is a domain of givenness.¹⁶ Either of these moves would violate systematic immanence; the resources for conceptualizing what is other than logic can only come from logic. The second move would additionally plunge the system into the Kantian transcendental problematic. Recall Hegel's remarks quoted earlier: we want to conceive nature as it is in its own right, not just as it appears to us. What we find then in the *Philosophy of Nature* is that sheer 'givenness for' or 'difference from', now conceived without determinative reference to the nature of what it might *be* for, now conceived just in its own right, is a domain of 'being for' which is just that and nothing else. Nature is initially nothing but a domain of determinacy which is what it is as being everywhere 'for', with no other determinacy present; nature is sheer 'for-ness' as capable of subsisting in this determinacy without reference to anything else. Now if we are to think this domain so that we omit mention of explicit 'being *for*' as such (since that must connote 'a *something* for which'), we can conceive this domain as self-subsisting outsideness, in short, as externality.¹⁷ Externality is conceived as that which is as always 'different from', where there is not already a determinate other 'from which' this determinacy is different.¹⁸ Such a domain of subsisting outsideness may be more specifically determined, as coordinated with our empirical concepts, as space.¹⁹ How, more specifically, is externality "the Idea in the form of otherness"? We may think externality as the Idea in otherness if; in conceptualizing the Idea as the consummation of logical self-determination, we make the requisite return to reconsider the initial mode of logical self-determination in the logic of being.²⁰ There, at the very start of logical self-determination, no determinacy is capable of being determinatively distinguished from its other. Now, to think this mode of determinacy 'in otherness' is precisely to think of a domain of determinacy capable of sustaining determinate difference, a domain of sheer stable differentiation: externality.

Since nature is conceived *just* as externality and thus without constitutive reference to any determinacy 'for which' nature is, systematic thought has come to think of a domain of determinacy which is not self-determining determinacy but which is determinate, and which has been conceived as being determinate in and for itself. As conceived without reference to anything 'for which' it might appear, nature has been thought precisely as that which is what it is independently of any conscious mind and thus this conception of nature is thoroughly nonidealistic. In sum, since externality has emerged as the antithesis to a domain of thought which was itself conceived without reference to any determinations save its own, and since externality emerges as that determinacy which is what it is in the absence of any reference to consciousness (or any other determinacy), we can say that systematic thought has begun to conceive of nature in its character as a "free, self-subsistent being."

The Superiority of Systematic Philosophy of Nature

But what about the issue mentioned previously: how can a philosophy which refuses to surrender to given nature as actually apprehended make the claim to be providing the philosophically superior account of nature? Isn't it obvious that

in order to know nature as it is we must renounce systematicity and turn to nature as it is given to us, as actually apprehended? While we might say that Hegel has allowed the idea of what is other than thought to emerge determinatively, isn't the only true way to recognize and grasp otherness to allow it literally to determine thought? The Hegelian response is to indicate that attempting to think nature in that fashion must in fact lead to some form of metaphysical idealism. If we are to recognize and think nature on the basis of apprehended data, we must, in some fashion or another, either explicitly or implicitly, transform that which we take to be other than thought into thought or into something thought-like. How so? If nature is to be thought as determinate and as other than thought, it must have some determinate attributes which are not those of thought. (Hegel claims that thought in and of itself can think the general nature of these attributes, while noting that nature as apprehended has many characteristics which lie beyond those thinkable in systematic philosophy.) But if we turn to apprehended givens to supply these attributes we must, in order to render nature knowable, implicitly or explicitly assume that there is some feature (or features) of sameness or similarity between thought and the given, or we must impose them. And this idealizing must occur even if this similarity is only a similarity of form, or if given nature's knowability is attributed to a receptivity of nature to

thought, or of thought to nature. If we turn to the given but *refrain* from idealizing it by refusing to assume or impose the similarity necessary to render cognition explicable, the given will be inaccessible and will thus be an indeterminate unknowable which is finally indistinguishable from thought. Furthermore, if we do idealize in order to incorporate the given, once we assume or impose such sameness or similarity, we can no longer claim to know nature as it is, but only as it appears to us, and we are again forced to think of nature itself as an indeterminate unknowable. So if we try to turn to the given without idealizing it, or if we deliberately make it accessible by idealizing it, given nature as what it is in its own right remains inaccessible, a *Ding an sich* which is ultimately indistinguishable from thought, and we are thereby left firmly within metaphysical idealism. Thus part of what it means to say that the *Philosophy of Nature's* account of nature is critical (is a variety of critical idealism) is that it is superior to descriptive accounts of nature as it appears, just because any descriptive account, whether commonsensical or scientific, must be metaphysically idealistic to some degree.

So critical idealism rejects the cognitive authority of apprehended givens for philosophy not by denying the existence of such givens, but as a consequence of conceptualizing the genuine, ineluctable *otherness* of givenness to thought and its recalcitrant resistance to complete comprehension by consciousness. Critical idealism conceptualizes this otherness as genuinely and irreducibly other by refusing, as it goes about the business of articulating the determinate character of the other, to construe it in the metaphysically idealistic manner, as an other *for* consciousness. As we saw, construing the other in the latter manner finally must lead to its indeterminate indistinguishability from thought. Hegel's critical idealism avoids reducing the other to a mere adjunct or derivative of consciousness. Thus, rather than denying the finitude of consciousness and the sheer impenetrable otherness of given

nature, as postmodernists claim, Hegel's philosophy is based on an acknowledgment of them. Hegel's critics are thoroughly mistaken in charging him with propounding a idealistically reductive absolutism.

The empirical sciences cannot escape, but they can ignore) the problem of idealizing in so far as they do not attempt to substitute for philosophy, and in so far as their account of nature is supplemented by the proper philosophical one. Since they rest on unjustified assumptions—since they account neither for the necessity of their methods nor their objects, but take both as given—the empirical sciences can rest content with turning to the given and affording knowledge of nature as it appears, that is, as it is conditioned by the particular conceptual assumptions, the paradigms, they happen to operate with.²¹ But if we are to proceed philosophically, such that our knowledge is not relative, but unconditioned, we cannot turn to the given as determinative even in our cognition of nature. For paradoxically, as we have seen, turning to given evidence in the attempt to think nature forces us, in any final philosophical defense of this nonsystematic approach, to hold that the given *as such* is unknowable, and as unknowable, finally indistinguishable from thought itself. So, Hegel says: If we wish to recognize and think what nature is as a genuine, ineliminable, and irreducible other to thought) the only way to do this—to genuinely and adequately recognize this otherness—is by attempting not to incorporate, include, or bring this other *into* thought, but rather to think just what it must mean for there to be such a domain of *external* determinacy. Systematic *a priori* thought is better capable of conceptualizing the nature of nature as a given than is descriptive thought which derives its determinacies from the given, since, as we have seen, descriptive thought must idealize the given to render it cognizable. And systematic thought can better conceptualize nature as given, not because it claims that the given is thought or thought-like, but just because it refuses to make that claim.

Both in terms of method and content, this approach to nature is able to conceive nature nonidealistically, as what it is in its own right. Because this thinking process has been itself constituted without any determinate presuppositions, because it has come to determine what self-determining thought is without already contrasting this domain with some given determinate other, it is subsequently capable, methodologically speaking, of thinking its other—nature—in the same fashion, as what it is in *its* own right. Methodologically, because systematic thought in logic has determined itself in a manner which is free of other, extraneous determinations, it can then, in the *Philosophy of Nature*, consider the nature of something other than itself in a similar fashion: in such a way that, as conceptualized, nature is not already invested with thought's determinate character in an illicit fashion. Having first determined what self-determination as such is in logic, systematic thought is capable of thinking what it means for there to be an other domain of determinacy which attains to and constitutes its own determinate character. Only systematic philosophy's methodological idealism is capable of *thinking* given nature as such. Rather than leading to metaphysical idealism, it is systematicity which makes its avoidance possible.

Furthermore, because the *content* of the concept of nature in

systematic philosophy is thought as radically other, this thinking of nature can conceptualize those aspects of nature which comprise this otherness without transforming them immediately into thought-like things, and in this sense it can also be said to think nature in its own right. For example, systematic philosophy can and does make intelligible the contingency of nature, its sheer alogicality, and the multiple and superfluous character (from a logical point of view) of many of its random, unconnected, and unnecessary determinations.²² Because the systematic philosophy of nature can indicate why nature as other than thought must be determined in this fashion (since it has thematized and thought through the nature of givenness as such), it is a critical account of nature in yet another sense.²³ Not in the metaphysical sense that it says what nature should be if it were ideal, but rather in the sense that the systematic philosophy of nature can go beyond nature in its apprehended givenness, not to describe it, but to explain *why* nature as it is given has those general features of givenness such as contingency. Empirical thought, thought which attends to the given as given, must impose its ideal, conceptual form on the given, and thus, while it may recognize, it cannot attend adequately to, what it must *ignore* in imposing that ideal form: the general character-istics of nature as not like thought at all. Empirical science cannot explain these general features of nature because they are incompatible with its idealistic method which involves the incorporation of the given into thought. But systematic philosophy of nature can and does conceptualize just these features, accounting for why nature appears as it does.²⁴

On the one hand, as Hegel notes, empirical thought which attends to the given as given can provide an actual descriptive account of these things, but it cannot at the same time sort out what it brings as thought to the given and what the given contributes, since it is always in some ineluctable way shaping the given to fit thought.²⁵ On the other hand, however, systematic thought in and of itself alone cannot account for the specific ways in which given nature concretely manifests the general features of givenness as such.²⁶ (Here the *Philosophy of Nature* depends on the results of empirical research, and could certainly be updated in regard to the empirical coordinates of its systematic determinations.)²⁷ Nor can the *Philosophy of Nature* ordain that they must appear, since what actually appears is dependent upon the many contingencies of nature and of human observation, such as opportunity, proper instrumentation, etc.²⁸ As Hegel notes, the *Philosophy of Nature* cannot deduce Herr Krug's pen.²⁹ In these respects this philosophy of nature is remarkably anti-aprioristic. But, since it has conceptualized what givenness, naturality, is, systematic philosophy can articulate what its general features are. And, once empirical thought has indicated how apprehended nature may display these features, the *Philosophy of Nature* may then account for why given nature, as it actually happens to appear, does have them.³⁰ Since empirical thought must be guided by the given as it does appear, it cannot venture into that issue.³¹ (For example, were empirical thought to attempt to explain the necessity of the contingency of given nature - say, the fact, as Nancy Cartwright has indicated, that the laws of physics lie, and can only be approximations - empirical science would have to move beyond the given fact of this contingency and so violate its own methodological strictures.)³² So while systematic thought is philosophically superior, it and

empirical science complement one another; as Hegel says, they consider the same object from different points of view.³³

But isn't there still a residual problem of idealism? Doesn't the *Philosophy of Nature* still 'read' thought into nature? For while we might say that nature is first thought as radically other in being thought as externality, can't we also say that subsequent developments in the *Philosophy of Nature* indicate that nature comes to be thought as taking on more and more of the character of self-determining thought? This misdescribes what takes place in the *Philosophy of Nature*, both in terms of its method and content. For one thing, the determinations which emerge in the *Philosophy of Nature* emerge immanently, not by using the logic as some kind of form or model imposed on a given content.³⁴ As nature is initially thought as thoroughly unlike - as the antithesis of pure self-determining thought in the *Logic*, we can expect that, in thinking through this concept of nature to its full determinacy, determinacies which are gradually determined as increasingly other than sheer externality will appear. Just as logically self-determining thought required thinking *its* other, conceiving nature will require thinking an other to its initial determinacy. Since this is the other to externality in its immediacy, we can expect this other neither to be logical self-determination, nor externality, but to emerge as the increasing attainment of what is determinate in externality to greater degrees of independent self-subsistence. Being determinate in its own right in the domain of nature consists in the emergence of more determinate modes of independent self-subsistence, the emergence of *things*. (Externality as space is that domain in which determinacies can be - subsist - as over against one another.) But note: 'determinate in its own right' in the *Philosophy of Nature* means independent self-subsistence. This is not at all what 'determinate in its own right' meant for self-determining logical thought, for logic's determinacies were not at all self-subsistent vis-?vis one another. Thus, the *Philosophy of Nature* is not the embodiment or instantiation or concretizing of logical form, because what was distinctive about that form in logic - the inextricable interconnectedness and the mutual determination of its determinacies - is precisely what is not found in nature.

Furthermore, as Hegel observes, nowhere in nature as such do we find real self-determination.³⁵ As achieved in the domain of the given, self-determination is freedom, which requires thought and the kind of liberation from nature which involves transforming and taking possession of it, and this is only found when we get to spirit.³⁶ But what about spirit's appearance in the system? Is that not indicative of an emergent metaphysical idealism? No. As the overriding activity of systematic thought is the activity of determining self-determination in all its manifold guises, the system moves as a whole in the direction of fully determinate self-determination, in the direction of spirit and freedom. But this is not because we know already that this is what given reality truly is, but because philosophically cognizable truth is self-determination, and must be completely conceived as such. So we move as a whole in systematic *Realphilosophie* from nature to spirit not because there is some organic, spiritually evolutionary development in given nature - Hegel explicitly and properly rejects this form of metaphysical idealism³⁷ - but just because nature is so unlike self-determining thought but is nonetheless being conceptualized in the system of self-determining thought. As called upon methodologically to

completeness, the system must think the full range and nature of self-determination. It cannot stop at nature.

So, by starting out with the antithesis of the thesis of metaphysical idealism, Hegel articulates a philosophy of nature which avoids metaphysical idealism and which provides an *a priori* account of nature, not as it is given in all its specificity (as that must fall beyond systematic thought), but in terms of delineating and accounting for the general features of givenness as such. Since these are features that thought which turns to the given cannot grasp as such, this *a priori* account is a necessary complement to empirical science. While the *concept* of nature which the *Philosophy of Nature* articulates is, as a concept of systematic philosophy, a thoroughly immanent product of thought, what it recognizes and articulates is the notion that, in being determined as what it is, nature must not be thought of as a product of thought or as thought-like. What we must do is distinguish carefully the systematic process through which the concept of nature comes to be thought in the *Philosophy of Nature*-a process which is consummately idealistic-from what this concept asserts about the nature of nature - which is consummately anti-idealistic. When we do that, we can see that Hegel's *Philosophy of Nature* avoids the metaphysically idealistic pitfalls of descriptive accounts and can explain features of nature to which such accounts cannot do justice. When we also consider that Hegel's account emerges in a systematic philosophy which has provided a full legitimization of the conditions of its own possibility, we can further appreciate why his *Philosophy of Nature* remains philosophically superior and indispensable.

Notes

1. Hegel notes the problematic status of the philosophy of nature even in his own times. See G.W.F. Hegel, *Enzyklopadie der philosophisehen Wissenschaften im Grundrisse* (1830). *Zweiter Teil: Die Naturphilosophie mit den mandlichen Zusatzen*, edited by E. Moldenhauer and K. Michel, *Werke in zwanzig Banden*, Vol. 9 (Frankfurt am Main: Suhrkamp Verlag, 1970), Einleitung, Zusatz, p.9; *Hegel's Philosophy of Nature: Being Part Two of the Encyclopaedia of the Philosophical Sciences* (1830), translated by A. V. Miller (Oxford: Clarendon Press, 1970), Introduction, Addition, p.1. (Hereafter cited as EN [1830]; Miller, PN.)(Return)

2. G.W.F. Hegel, *Enzyklopadie der philosophischen Wissenschaften im Grundrisse* (1830). *Erster Teil: Die Wissenschaft der Logik mit den mundlichen Zusatzen*, edited by E. Moldenhauer and K. Michel, *Werke in zwanzig Banden*, Vol.8 (Frankfurt am Main: Suhrkamp Verlag, 1970), §213, 9, 12, 14, 17, 41 Zus., 52 Zus., 77, 232, 238 Zus.; *Hegel's Logic: Being Part One of the Encyclopaedia of the Philosophical Sciences*, translated by William Wallace (Oxford: Clarendon Press, 1975). (Hereafter cited as EL [1830]; Wallace, EL.) Also see G.W.F. Hegel, *Wissenschaft der Logik I Erster Teil: Die Objective Logik*, edited by E. Moldenhauer and K. Michel, *Werke in zwanzig Banden*, Vol. 5 (Frankfurt am Main: Suhrkamp Verlag, 1970), p.16; *Science of Logic*, translated by A. V. Miller (Atlantic Highlands, NJ: Humanities Press International, 1989), p.27 (hereafter cited as *Logik [Werke, 5]*; Miller, *Logic*), and G.W.F. Hegel, *Phanomenologie des Geistes*, edited by E. Moldenhauer and K. Michel, *Werke in zwanzig Banden*, Vol.3 (Frankfurt am Main: Suhrkamp Verlag,

1970), pp. 65-6; *Phenomenology of Spirit*, translated by A.V. Miller (Oxford: Oxford University Press, 1977), p.44. (Return)

3. See, for example, Michael Rosen, *Hegel's Dialectic and Its Criticism* (Cambridge: Cambridge University Press, 1982), p. 174: "...Idealism's characteristic difficulty [is], namely, the need to give an account of the relationship between empirical and transcendental realms. The problem is resolved by Hegel's Absolute Idealism because the transcendental subject is, in fact, an absolute one, which itself generates the empirical. 'Transcendental and empirical, mind and nature, are not heterogeneous but emerge as 'moments' in a unified process; the problem of how one realm is 'constituted on' another is left behind when we operate in the element of Thought." Charles Taylor identifies Hegel as an absolute idealist and asserts that "Absolute idealism means that nothing exists which is not a manifestation of the Idea, that is, of rational necessity." See *Hegel* (Cambridge: Cambridge University Press, 1975), p.110.

R.G. Collingwood claims that Hegel has the "idealistic view of nature" which asserts "that mind makes nature: nature is, so to speak, a byproduct of the autonomous and self-existing activity of mind," *The Idea of Nature* (London: Oxford University Press, 1945), p.7. According to Errol Harris, nature is "an actual and substantial form of mind's self-manifestation"; "the philosopher of Nature ... sees Nature as implicit or potential mind." See *The Spirit of Hegel*, (Atlantic Highlands: Humanities Press, 1993), pp. 100, 133; also see pp.101 and 115. Also see Dieter Wandschneider, "Nature and Dialectic of Nature in Hegel's Objective Idealism," *Bulletin of the Hegel Society of Great Britain* 26, (Autum-Winter 1992): 30-51. In *Hegel's Idealism* (Cambridge: Cambridge University Press, 1989) Robert Pippin gives, but does not endorse, a good brief overview of Hegel as a metaphysical idealist. The reading I am presenting is not, however, Pippin's Kantian account of Hegel's idealism. (Return)

4. This piecemeal approach probably has its origins in Marx. Also see Taylor, *Hegel*, p. 538ff. Pippin discusses this view in *Hegel's Idealism*, pp.4-5, and also endorses it, pp.259-60. Karl Ameriks discusses it in "Recent Work on Hegel: The Rehabilitation of an Epistemologist," *Philosophy and Phenomenological Research* 52, 1 (March 1992): 177-202. (Return)

5. "Our procedure consists in first fixing the thought demanded by the necessity of the Notion and then in asking how this thought appears in our ordinary ideas," *EN* (1830), ? 54 Zus.; Miller, *PN*, p. 29. Hegel's views on the differences- and the relationship-between systematic philosophy and the empirical sciences are developed in detail in the Introduction to the *Encyclopedia Logic*. Philosophy "must necessarily be in harmony with actuality and experience" (*EL* [1830], ?; Wallace, *EL*, p.8), but this does not mean accepting experience as determinative, for even experience can distinguish "the mere appearance, which is transient and meaningless, from what in itself really deserves the name actuality" (*EL* [1830], ?; Wallace, *EL*, p.8), and "existence is in part mere experience, and only in part actuality" (*EL* [1830], ?; Wallace, *EL*, p.9). Philosophy "does not in the least neglect the empirical facts contained in the several sciences, but recognizes and adopts them: it appreciates and applies toward its own structure the universal element in

these sciences, their laws and classifications, but besides all this into the categories of science it introduces, and gives currency to, other categories" (*EL* [1830], ?; Wallace, *EL*, p. 13). Philosophy "cannot, like them [the sciences], rest the existence of its objects on the natural admissions of consciousness, nor can it assume that its method of cognition, either for starting or continuing, is one already accepted"; "...philosophy will be satisfied with nothing short of showing the existence of its objects, as well as their nature and qualities. Our original acquaintance with them is thus discovered to be inadequate," (*EL* [1830], ?; Wallace, *EL*, p.3). In the *Philosophy of Nature* Hegel asserts "Not only must philosophy be in agreement with our empirical knowledge of Nature, but the origin and formulation of the Philosophy of Nature presupposes and is conditioned by empirical physics. However, the course of a science's [the philosophy of nature's] origin and the preliminaries of its construction are one thing, while the science itself is another. In the latter, the former can no longer appear as the foundation of the science, here the foundation must be the necessity of the Notion," *EN* (1830), ?46 Anm.; Miller, *PN*, p.6. See also *EL* (1830), ?34 Zus.; Wallace, *EL*, p.190. (Return)

6. See *EL* (1830), ?60 Zus.; Wallace, *EL*, p. 223, and *Logik* (*Werke*, 5), pp.172-3; Miller, *Logic*, pp. 154-5. On *Logik* (*Werke*, 5), p. 172; Miller, *Logic*, p. 155, Hegel asserts that idealism denotes the proposition that '(das Endtliche fist] nicht als em wahrhaft Seiendes anzuerkennen,'" "the finite is not to be acknowledged as truly existing." This is consistent with what I discuss as Hegel's critical idealism. See *EL* (1830), Ë6, 142; Wallace, *EL*, pp.8-9, 201-2. (Return)

7. See especially *EL* (1830), ?6; Wallace, *EL*, pp.8-9, where Hegel makes clear that the fact that something exists and is apprehended does not mean that it is actual and true in the systematic meaning of these terms. (Return)

8. "These views on the relation of subject and object to each other express the determinations which constitute the nature of our ordinary, phenomenal consciousness; but when these prejudices are carried out into the sphere of reason as if the same relation obtained there, as if this relation were something true in its own self, then they are errors the refutation of which throughout every part of the spiritual and natural universe is philosophy, or rather, as they bar the entrance to philosophy, must be discarded at its portals"; "But the liberation from the opposition of consciousness which the science of logic must be able to presuppose lifts the determinations of thought above this timid, incomplete standpoint and demands that they be considered not with any such limitation and reference but as they are in their own proper character, as logic, as pure reason," *Logik* (*Werke*, 5), pp.37-8, 45, cf. p.43; Miller, *Logic*, pp.45, 51, cf. p.49. (Return)

9. *Logik* (*Werke*, 5), pp.66-9; Miller, *Logic*, pp.68-70. (Return)

10. For example, see *EL* (1830), Ë6, 142 Zus.; Wallace, *EL*, pp.8-10, 201-2.(Return)

11. *EN*(1830), ?46 Zus.; Miller, *PN*, pp.7-8. (Return)

12. See my essay, "Beginning," in *Essays on Hegel's Logic*,

13. Hegel rules out such appeals while recognizing that, in terms of its formulation, the *Philosophy of Nature* involves taking the results of the empirical sciences into account (see note 5). I will argue subsequently that nature's first determination as externality is immanently conceived, but that it can also be coordinated with the empirical representation of space. (Return)

14. EN(1830), ?47; Miller, *PN*, pp.13-14. (Return)

15. See "Beginning." (Return)

16. In ruling out the latter option this interpretation is importantly different from Klaus Hartmann's non-metaphysical interpretation of Hegel ("Hegel: A Non-Metaphysical View," in *Hegel: A Collection of Critical Essays*, edited by Alasdair MacIntyre [New York: Doubleday, 1972]), as well as those of his disciples such as Alan White *Absolute Knowledge: Hegel and the Problem of Metaphysics* (Athens, Ohio: Ohio University Press, 1983) and David Stem ("The Immanence of Thought: Hegel's Critique of Foundationalism," *The Owl of Minerva* 22, 1 [Fall 1990]: 19-33). (Return)

17. EN(1830), E252-3; Miller, *PN*, pp.25, 28. (Return)

18. Conceiving externality systematically requires that externality be conceived as what it is in such a way that we think its determinacy as being itself constituted without determining reference to logic, to self-determination, just because systematic thought has shown that nature must be thought as being what it is in the complete absence of self-determination. Hegel is asking us to think what it means for nature to be determinate in its own right and not in virtue of some likeness with or some relation to thought. Nature is, after all, logic's radical other. Of course the activity of so conceiving nature involves a methodological reference to the already constituted domain of logical self-determination: it is only in virtue of this procedural demand that nature is thinkable immanently and as that domain in which logical determination does not take place. Only because we know what logical self-determination involves can we think a mode of determination which is not logical. But this methodological reference to logic (that "nature is the idea in the form of otherness") does not amount to the claim that logical determinacies are somehow or in some form present in nature as an actually apprehended given, as though Hegel was claiming that natural things "really are" just ideas. I quoted Hegel above as explicitly denying this and as indicating it as the pitfall he aims to avoid. While the concept of nature as a concept of systematic philosophy is constituted by thinking the idea in otherness, in thinking that we see that nature as a given is not in any way, shape, or form an idea or like an idea at all. (Return)

19. EN(1830), ?54; Miller, *PN*, p.28. (Return)

20. Hegel specifically calls for this return in the addition to the last section (?244 Zus.; Wallace, p.296) of the *Encyclopedia Logic*: "We have now returned to the notion of the Idea with which we began. This return to the beginning is also an advance. We began with Being, abstract Being; where we

now are we also have the Idea as Being; but the Idea which has Being is Nature." (Return)

21. "Philosophy misses an advantage enjoyed by the other sciences. It cannot like them rest the existence of its objects on the natural admissions of consciousness, nor can it assume that its method of cognition, either for starting or for continuing, is one already accepted," *EL* (1830), ?; Wallace, *EL*, p.3. According to Hegel, in the empirical sciences "the beginnings are in every case data and postulates, neither accounted for nor deduced" and thus "necessity fails to get its due," *EL* (1830), ?; Wallace, *EL*, p.13. (Return)

22. *EN* (1830), ?50; Miller, *PN*, pp.22-3. (Return)

23. " ... Nature in its manifestations does not hold fast to the Notion. Its wealth of forms is an absence of definiteness and the play of contingency; the Notion is not to be based on them, rather it is they which are to be measured by the Notion," *EN* (1830), ?41 Zus.; Miller, *PN*, p.299. (Return)

24. Philosophy "gives their [the empirical sciences'] contents what is so vital to them, the freedom of thought-gives them, in short, an *a priori* character. These contents are now warranted necessary, and no longer depend on the evidence of facts merely, that they were so found and so experienced. The fact as experienced thus becomes an illustration and a copy of the original and completely self-supporting activity of thought," *EL* (1830), ?2 Anm.; Wallace, *EL*, p.18. (Return)

25. "The fact is, however, that the principal charge to be brought against physics is that it contains much more thought than it admits and is aware of... ," *EN* (1830), Einleitung, p.11; Miller, *PN*, p. 3. In this respect Hegel anticipates the contemporary philosophers of science T. S. Kuhn and Paul Feyerabend. (Return)

26. "The dignity of science must not be held to consist in the comprehension and explanation of all the multiplicity of forms in Nature; we must be content with what we can, in fact, comprehend at present. There is plenty that cannot be comprehended yet; this is something we must grant in the Philosophy of Nature," *EN* (1830), ?68 Zus.; Miller, *PN*, p.62. See also *EN* (1830), ?54 Zus.; Miller, *PN*, p.359. (Return)

27. "The Philosophy of Nature takes up the material which physics has prepared for it empirically, at the point to which physics has brought it, and reconstitutes it, so that experience is not its final warrant and base. Physics must therefore work into the hands of philosophy, in order that the latter may translate into the Notion the abstract universal transmitted to it, by showing how this universal, as an intrinsically necessary whole, proceeds from the Notion," *EN* (1830), ?46 Zus.; Miller, *PN*, p. 10. "Here, as throughout the whole of the Philosophy of Nature, all that we have to do is to substitute for the categories of the Understanding the thought-relationships of the speculative Notion, and to grasp and determine the phenomenon in terms of the latter," *EN* (1830), ?05 Anm.; Miller, *PN*, p.154. (Return)

28. "For philosophy it is a matter of complete indifference which bodies manifest magnetism.... all this is no affair of the Notion,,," *EN*(1830), ?12 Zus.; Miller, *PN*, pp.166-7. (Return)

29. *EN*(1830), ?50 Anm.; Miller, *PN*, p.23. (Return)

30. *EL* (1830), ?2 Anm.; Wallace, *EL*, p.18. (Return)

31. "In empirical science, any statement as to what color or heat etc., is, cannot be based on the Notion but must depend on their modes of origin. These modes are, however, extremely varied," *EN* (1830), ?20 Anm.; Miller, *PN*, p.196. (Return)

32. Nancy Cartwright, *How The Laws of Physics Lie* (Oxford: Oxford University Press, 1983). (Return)

33. *EN* (1830), ?46; Miller, *PN*, p.6. (Return)

34. Space prevents a full exposition of this topic. Hegel deals with it, in his consideration of the theoretical and practical modes of cognition, both at the end of the logic (see the *EL* [1830], §224 and 225; Wallace, *EL*, pp.283-4) and briefly, almost in passing, at the opening of the *Philosophy of Nature* (in the *Einleitung*, *EN* [1830], p.13; Miller, *PN*, p.4). (Return)

35. See *EN* (1830), §248 Zus., 275 Zus.; Miller, *PN*, pp.18-19, 288. (Return)

36. *EN*(1830), ?48; Miller) *PN*, p.17. (Return)

37. *EN*(1830), ?49; Miller, *PN*, p.20. (Return)