

Why Heidegger and Logic?

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With my looming retirement from teaching, colleagues have remarked that it will prove difficult to find a replacement who can teach both Heidegger and logic. It has startled me that the two should appear incongruent. I can only conclude that many have understandings of these two studies that differ remarkably from mine.

The fact is that, since 1970, I have regularly taught logic. By “logic” I mean Aristotelian syllogism as it gave way to the mathematical version, Aristotelian paralogism as it gave way to the psychological version, Aristotelian induction as it gave way to the Baconian version, and Aristotelian axiomatics as it gave way to the formalized version of Hilbert. I would devote two semesters primarily to the original Greek version and two semesters exclusively to the modern mathematical version.

The fact is that I first read Heidegger's *Being and Time* in 1961 (before the English translation became available), and kindred works in phenomenology ever since. However, only very seldom did I teach courses concentrating on Heidegger. For by “Heidegger” I mean, in part, a style of thinking inquiring into the origination of discursive reason. And students are generally ill-prepared for such inquiry.

On my understanding of “logic” and of “Heidegger,” competent study of either one might be fruitfully possible without engagement in the other. Yet each appears much differently when studied within hearing of the other. I have composed this essay in an effort to show how.

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Why Heidegger and Logic?

There is a pedagogical version of the question. How might students benefit from studying both logic and Heidegger? I'll first address this version of the question with regard to logical study.

An easy answer is that logical study exercises students in careful formulation, an ability absolutely essential for reading intellectual works of any kind.

A more subtle answer is that logic provides the language of intellectual work generally, and especially the vocabulary of philosophical works: for two thousand years and more, texts have spoken in the language of categories and propositions, premisses and conclusions, material, efficient, final and formal causes, modalities of assertions, presuppositions of a field of inquiry—and students who have not learned this language will be at a loss throughout even modern philosophy, not to mention ancient and medieval literature.

A third answer is that, especially in philosophical work, everything depends on discerning the difference between deduction and induction. Bacon and Mill emphasize the difference with a view to induction as data-gathering, an essential element of modern empirical science. But Plato and Aristotle insist on the difference with a view to induction as the learning of the measure at issue in judgements. The question cannot be how to prove the measure or forge an access to it, since every proof and every technique will already presuppose the measure, and we will beg the question. Rather, the philosophical question about origins has from the start asked how we are drawn into the measure—and this draw, this being-led, was called ἐπαγωγή, “induction.” Students then err, show they don't know the language of philosophy, are ἀπαίδευτος, “badly brought up by others,” if they demand justification of the origin justifying any decision on their part.*

* Cf. Aristotle's *Metaphysics*, 1006 a 7: “Some, not being brought up properly (δὲ ἀπαιδευσίαν), demand that everything be demonstrated.” Also, 1005 b 5: “Some, not being brought up properly in logic, argue about how truth should be demonstrated: they should know this in advance.” Similarly, 995 a 1-20: Since

And there's a fourth answer. Philosophy has traditionally assumed that those engaged in it already know a good deal. Contemplation consists of wondering about what we already know. Thus Plato insisted that the city should allow only those to learn the art of philosophy who have already proved themselves in “running a household and earning a living.”* By teaching philosophy to undergraduates we generally break this rule, with the effect that “philosophy” takes the form Plato predicted: a facility to badger oneself and others about opinions regarding how things are. The study of modern mathematical logic provides an antidote to this disease by introducing simultaneously its own propaedeutic: an art akin to the arts of arithmetic, geometry, and music.

So much for the pedagogical version of the question “Why study logic?” I now turn to the philosophical version that has evolved from this more elementary one and that leads into the question “Why study Heidegger?”

§1. *The question: form or structure?*

There is a technique, familiar to any contemporary logician, allowing us to prove that a formula can never be derived from other formulas even if it happens to be logically true. We thereby prove its independence from those others. This technique consists of a procedure entirely foreign to ancient logicians.

It works like this: we first settle on a small number of formulas we take to be logically true and rules of inference we take to be logically safe. We then select one of the formulas to test whether it may be derived from the remaining formulas and the rules of inference. We now retreat into the *syntax* of the formulas and rules; that is, we no longer consider their *semantics*, what they might mean when instantiated. Our only concern is to examine the generation of further formulas from the original set, the rules of inference serving as syntactical means of transformation. And the question will be whether the test-formula can ever count among the possible generations.

This withdrawal into syntax, this abstraction from meaning, may seem

people listen according to their ἔθος, demanding various things from speakers, it is necessary to be brought up properly (πεπαιδευέσθαι) with regard to what is being demonstrated. Cf. also his *Politics*, 1356 a 26: Some, not being brought up properly, confuse the rhetorical art with the political art.

* *Republic*, 498a: οἰκονομία καὶ χρηματισμός.

basic to all logical work. Yet the procedure of modern syntactical proof differs remarkably from the original. Aristotle also spoke of the syllogism in abstraction from *instances* (e.g., if all C are B and all A are C, then all A are B); yet the extraction remains formal in the strict philosophical sense: the “variables” hover over instances, and the syllogism displays a form for them, even mimes the detection of the “formal cause” at issue in understanding nature. In modern terminology, traditional logic remains truth-functional: “All A are B” represents any *one* assertion instantiated in this form, one that is either true or false.

Withdrawal into syntax suspends truth-functionality. Such withdrawal allows us to study *structures*. And the sign that we are studying structures rather than forms is that we may then *interpret* the structures—this as distinct from instantiating the forms, as we would do in traditional logic. Interpreting a structure, we assign some “meaning” to the *operators* within the syntax. Such meaning can either be familiar or strange, it makes no difference so long as the assignment allows us to decide whether or not a given formula enjoys membership in the system: when proving independence, whether the original set of formulas coheres, and then whether some other formula can be derived from that set. But the point is that the syntax “precedes” the semantics. And the proof of this precedence lies precisely in our ability to assign different interpretations to the structures—to their operators rather than to their variables.

Aristotle instantiated forms in order to prove invalidity. That true premisses would lead to a false conclusion suffices to discredit the form pretending to the inference. In contrast, our mathematical technique of proving independence allows us to consider the conclusion to be true—but on some other interpretation.*

* In his 1918 doctoral dissertation, Paul Bernays proved the independence of each of four sentential primitives of *Principia Mathematica* by interpreting the two basic operators, \sim and \vee : instead of defining them in the customary way as true or false, he envisioned “multiple values” to show (1) that three of the sentential primitives always have one value (or one of two), (2) that any formula derived from these three by *modus ponens* or Substitution necessarily has that same value (or one of two), and (3) that the fourth formula does not always have that value. — In the 1950s, Jan Łukasiewicz formalized Aristotelian syllogistic into four syntactical primitives: $aAa, aIa, (cAb \ \& \ aAc) \rightarrow aAb$, and $(cAb \ \& \ cIa) \rightarrow aIb$, all true on the Aristotelian interpretation, and he then interpreted each operator such that three of the four were true and the fourth false on the “artificial” interpretation.

Whereas the form-instance model of logic originally represented the purely intellectual dimension of an ontology of nature, the syntax-interpretation model represents an ontology of our own creativity. If we think of Aristotle as the first to work out the ontology of nature as entailing a logic of our own indebtedness ($\tau\acute{\epsilon}\chi\nu\eta$, i.e. craft or knowledge, “partly completes what nature is incapable of finishing, and partly follows her in her own wiles”), we may think of Kant as the first to work out the ontology—better, the phenomenology—of our own responses as entailing a logic of our commitment to imagination (“every object stands under the necessary conditions of synthetic unity of the manifold of intuition in a possible experience”).*

But does not such a logic (syntax- rather than form-based) serve only special interests, a very narrow field of inquiry, and squeeze out of view the broader concerns of philosophy, especially those one often associates with Heidegger’s works: authenticity, care, thrownness, projection, collapsing, dread, conscience, death, wholeness, temporality, historicity, art work, autochthony?

So it may seem to one who views the operations from the outside. I propose the contrary view: that *all* distinctively intellectual developments since around 1900 have evolved within an increasing dependence on syntax and defiance of form.

Consider this testimony from Werner Heisenberg, one of the 20th-century’s greatest physicists:

... In earlier epochs . . . nature . . . was a realm that lived according to its own laws, a realm into which man had somehow to fit himself and his life. In our age, though, we live in a world that has been so completely transformed by human agency that everywhere we constantly come up against humanly devised structures and in this sense only encounter ourselves.†

That is, no longer acknowledging the full force of the metaphorical expression “laws of, i.e. *in* nature,” modern science devises, works with, presents to us laws *about* nature — better called *structures*. These structures *pertain* to what we might still call “nature”: they *result* from a definite manner of dealing with circumstances *and* they serve to *strengthen* our dealings. Indeed, the formulations must prove and improve themselves

* Aristotle's *Physics*, 199 a 15, & Kant's *Critique of Pure Reason*, A158, B197.

† “Das Naturbild der heutigen Physik,” a talk delivered in 1953 as part of a series published in *Die Künste im technischen Zeitalter* (Munich, 1954).

in such dealings. Compared with its ancient homonym, science now provides not so much contact with or insight into the inner and restful nature of circumstances as rather strategies for dealing with the actual course of events in all their restlessness. But then we really only encounter laws, structures, and strategies — not nature herself. And these laws, structures, and strategies represent ourselves, i.e. inherited and projected achievements.

Or consider the understanding of democratic government that has evolved during the last few hundred years: here, too, we may detect an astounding shift paralleling that of our (academic) understanding of nature. At the birth of modern democracy, during the Enlightenment, government still appeared as reflecting the nature of human being (liberty, equality, fraternity: forms in which human nature could find its taproot and thereby thrive). The present functioning of democratic government differs considerably from the earlier project: democracy is a mere procedural economic structure in which individuals and groups pursue their own interests, essentially private. Mere structure: that is, syntax, the purer the better, since every effort to recall, let alone instill principles, even that of liberty, raises substantial questions that might compromise private interest. At each moment we must be prepared to re-interpret the structure, the syntax, already in place, in order to satisfy the interests at the moment; the only other imperative is that of coherence, an always recurring problem requiring ever new solutions.

Or consider the understanding of music that has taken shape since the beginning of the 20th century. J.-Claude Piguet, a Swiss philosopher versed in both music and musicology, likes to contrast the accomplishments of Debussy and Stravinsky: while the first “begins with expression (objectivity in an image) in order to renew form,” the second “begins with form to achieve a new kind of expression”:

In effect, Stravinsky inaugurates a new manner of saying things in music, one that is not tied directly, but rather indirectly to the things being said . . . — a manner of saying just about anything, not according to the rules that govern the things being said but only according to the laws of *saying* itself.

Piguet reviews a number of examples contrasting Stravinsky with Haydn, Mozart, and Strauss, all of whom composed instances *within* musical forms — rather than taking the form itself as the “subject.” One effect of retreating into form itself, of transmuting form into syntax, is that new

work can consist of modifying languages already in force. Piguet quotes Ansermet: Stravinsky “is the first musician who quite openly speaks the language of others to get their language to say something different from what they themselves say and, moreover, to get them to speak solely by way of their manner of speaking.” But, as Piguet goes on to say:

At the same time, Stravinsky gets music to express what it never before was able to express, namely the *fact* that music is a language. His music is thus a formalism, but a formalism that is expressive because it is consistent with itself. That in his theoretical works Stravinsky repudiates expression in music should not deceive us: this does not mean that music lacks expression. Simply put, Stravinsky expresses nothing by means of form alone, he rather gets music to express the fact, in itself abstract, that music is always form. Between a symphony by Mozart and a symphony by Stravinsky there is thus the same difference as there is between a concrete tree and the abstract concept of a tree: both enjoy the same formal properties, but the concrete tree is an expressive form, while the concept of tree expresses a form.*

Or, finally, consider the testing of possible advances in the domains of academic research, democratic government, or artistic work. To be legitimate, any new work must interlock with the old—with what others have already done. For only then will it contribute to the on-going “conversation,” to what has rightly been dubbed “social construction.” Is there then no “matter itself” onto which a new work might converge and thereby put old work to the test? In Hegel’s terms, the conversation itself has become the matter at issue, τὸ ὑποκείμενον, the “subject.” In Heidegger’s terms, once the field has proven itself, talk within it becomes re-talk, a conversation in which what it’s “about” is no longer “appropriated” and proceeds “uprooted” from its origin; and it is precisely academic work that most easily falls into such rootless re-talk (*Ge-rede*) committed as it is to presenting its results to others as fixed achievements.† Wherever committees screen proposed work, the expectation is that the work “continue the conversation”—whether in the mathematical sciences,

* “Le langage de la musique au xxe siècle,” in *Dialogue*, vol. VII, No. 2, 1968, p. 243 f.. The author gathered together these reflections along with others in *La connaissance de l’individuel et la logique du réalisme* (Neuchâtel: Éditions de la Baconnière, 1975); see especially §§6230 ff.. With Piguet’s death in June of 2000, we have lost a valuable thinker of our time.

† Lectures from 1924: *Gesamtausgabe* Vol. 64, pp. 29 and 39.

in policy making, or in the arts: in Plato's terms we are on the path *from* rather than *toward* origins.

A loss of innocence then: it is one thing to do something, to find oneself taken up into something (a scientific investigation, a democratic procedure, a work of art); it is another thing to insist, in addition, upon the character of what one is doing. The latter is highly reflexive. From the standpoint of such reflexivity, the former appears naïve — indeed, charmingly so, sometimes even enviably so, as when we wish we could just converse within a foreign language and not worry about the grammar of what we say and hear.

Modern mathematical logic illustrates *in extremis* the reflexivity essential to modern developments generally. The procedure I outlined for proving the independence of one formula from others, namely the withdrawal into syntax as distinct from the recourse to form, reveals only the proverbial tip of an iceberg. The iceberg is that of modernity itself, the era that began sometime around 1600 and that continues to engulf our present educational, political, and scientific institutions.

§2. *Syntax and habitat: Heidegger's achievement*

It might seem that genuine intellectual work should point to substance: to inner workings of nature accounting for the sometimes marvelous and sometimes dangerous, always multifarious events (whether close by or far away in space or in time), to human dignity or to God's will as the supporting purpose of political institutions, or to psychic and social struggles in which we find ourselves most concretely. From this standpoint, withdrawal into syntax appears as irresponsible, as redeemable only if it produces results that might then be applied to such questions of substance.

But what if our first home, our "habitat," the realm we first of all inhabit, is syntactical — rather than, say, natural or social or psychic, let alone divine? What if the strange involutedness of modern science, the very hollowness of modern bureaucracy, the striking formalism of much modern art work — what if these "negativities" reflect or adumbrate the very "positivity" essential to all else, to whatever else may happen?

I propose that one of the achievements of Heidegger's *Being and Time* is that it provides a sustained account of our habitat as syntactical. And that it thereby unearths the very roots of that intellectual discipline we call logic.

Our syntactical habitat Heidegger calls "world." The challenge of the first two hundred or so pages of *Being and Time* is to bring out, to bring into contemplative view, "being-in-world" as indeed our primary habitat — our habitat prior to any kind of academic work. At the heart of this challenge lies the peculiar effort to unveil, in a highly intellectual mode of reflection, precisely how and where we are prior to any such reflection — as he puts it, to uncover our pre-phenomenological being-in-world... doing so phenomenologically.

If we search through our traditions for a precedent to this first challenge, we might be struck by the talk of ἔθος in Plato and Aristotle — of "habit" as the focus of education into moral excellence and thus the soil out of which intellectual excellence may grow.* Such talk acknowledges the prevalence of a ἔξις prior to explicit and insightful articulation of affairs — of a "condition" that not only prevails (constitutes our everyday dealings) but also conditions (provides the basis for) developments of intellectual interest. Yet neither Plato nor Aristotle invites us to dwell intellectually on this pre-intellectual condition; they rather draw on it to concentrate attention on other matters. — And subsequent thinkers increasingly understand habit as the progenitor of dullness.

When David Hume speaks of "Custom or Habit" as the principle determining "the existence of one object from the appearance of the other" (rather than insight into any supposed "secret power by which the one object produces the other"),† he also points to and draws upon our pre-intellectual condition. Yet in the course of the intervening two thousand years the reference has changed: ἔθος, "Custom or Habit," is now a property of human being accounting for the workings of all "belief," including the apparently rigorous variety we endow with the name "knowledge of nature." In Plato and Aristotle, ἔθος names a stage — both in the pedagogical and the theatrical sense — in or on which we find ourselves as well as others. Whereas Hume aims to *reduce* intellectual accomplishment to this first stage, to "Custom or Habit," Plato and Aristotle aim to *induce* intellectual work from it.

If the first challenge is to bring the initial stage-setting (our predominate habitat) into contemplative view, the second will be to detect within this stage the motivation, the call, to "make something of it" — to

* E.g., *Republic*, 518e, and *Nicomachean Ethics*, 1103 a 14; also whether "correctness of names" is a matter of συνθήκη, "convention" (*Cratylus*).

† For example, *An Enquiry Concerning Human Understanding*, Section V.

transcend it or, more exactly, to discover and acknowledge the transcendence already essential to it. Heidegger addresses this second challenge in the remaining two hundred or so pages of *Being and Time*. His account does not reduce the transcendence at issue to the appearances and exigencies evident at the initial stage (as do accounts of “common sense” thinkers), nor does it induce any “secret power” supposedly engendering those appearances and exigencies (as do the accounts of “metaphysical” thinkers). Any understanding of what his account *does* do in the way of bringing into view a “second stage” will vary according to what we make of his account of the first stage. Let us return to this, then.

§3. Heidegger's account of world as abode

What does Heidegger offer by way of a contemplative account of our basic habitat? Chapters Two through Five of Division One provide the initial sketch of being-in-world. In Chapter Three we read the following definition of the phenomenon of world:

The where-in of self-referring understanding as the upon-which of the letting-be encountered of beings in which evolvment has its being: this is the phenomenon of world. (p. 86)

The definition encapsulates many previous considerations and anticipates not only the remaining pages of *Being and Time* but also the entire project of Heidegger's thought as worked out in the succeeding three or four decades. Let us break it down a bit...

Our basic habitat—our ἔθoς, our ἔξiς—is a “where-in”: a context of dealings, often an easily nameable “work-world” (house work, office work) or “leisure activity” (football, poker). This context is already intelligible in a “self-referring” way: things make sense, we understand what's going on in reference to the goings-on themselves, the dealings often having a name from which we have our own names: home-maker, baseball-player, card-player. This “where-in,” this context of dealings, serves also as an “upon-which” through which beings arise for encounter, a context upon which they impinge, into which they intrude: beings worked on (at-hand beings: most obviously tools and materials) and beings worked with (others engaged in the dealings: most obviously our siblings, our parents, our teammates, our opponents, our employers, our clients). Such beings as arise for encounter *are* in the mode of “evolvment”: each thing, each focus of attention, fits in with other things, other foci, and the flow of such mutual fittings “precedes” any one being arising for encounter (each item

is “relevant,” comes into relief, already in reference to other items, i.e. as bringing other things into relief). And this context “always already” prevails, prior to contemplation: it is the “phenomenon of world.”

What first of all “is” — the beginning, the ἀρχή rendering the discovery of other beings possible and perhaps even urgent—is world, our abode. Not, notice, myself or ourselves, not the “I think” (subjectivity) dear to modern intellectual work. Nor nature in the ancient sense of the “self-engendering” (φύσις) governing that to which we must learn to respond effectively by both helping and following the generation (whether in horse-training or polis-building). The self, whether individual or communal, remains buried, more or less lost in its abode even if we formally recognize it as essentially “mine” or “ours.” And nature, understood more simply as what we must learn to face, remains buried and more or less lost or betrayed in our initial abode.

Our initial habitat we may then call *structure*. However, this word now deserves careful reconsideration. Of late, and perhaps for very good reasons, we easily talk and hear about “the structure” of just about anything: of animals, plants, and minerals, of the brain, the gene, the atom, of society and of consciousness, of government and of behavior. Then too we call buildings of various sorts “structures.” For all such things we draw pictures representing the structures. Yet the picture is not quite the same as the structure: the picture is ours, a kind of map of the structure “in” the thing: not “contained in” but rather the “essence of” the thing, the focal point whereby we grasp the thing, work on it most intelligently. The structure of a thing allows us to see the whole of it rather than only its parts.

Why then call our initial habitat *structure*? Reconsider what the picture of any of those structures actually draws. An architectural plan of a building maps out the interconnections: shows where people may enter and exit, how its plumbing and heating and ventilating runs from one part to another in the course of serving human interests. Similarly, any picture of the human brain will map interrelations both among the elements discerned in that organ and between those elements and the phenomena the picture intends to explain (choice, volition, pleasure, pain, and so on). One studies the thing, its structure, in order to draw an accurate picture of it. Or, beginners study the pictures in order to learn to study the thing, its structure. The thing itself is assumed to consist in its interconnections: one item leads to others, makes sense in relation to others. Each item is

essentially fungible in this sense: *being* the service it renders, it is essentially replaceable (as in surgical transplantation). Structure is “prior” to its elements, and especially prior to any one thing of which it happens to be the structure.

In traditional philosophical terms, structure is intellectual or ideational rather than sensory or material. Its dominant category is the Aristotelian *πρός τι*, “toward what?” (“relation”): the structure of something (of the human brain, of a social institution, of an office building) *is* the joining-together, the articulation, of items that *are* the way they bear on other items — their *πρός τι*, their “toward what.” Thus Hilbert’s student Bernays summarizes:

A main feature of Hilbert’s axiomatization of geometry ... consists in abstracting from the intuitive meaning of the terms ... Thus, an axiom system is regarded not as a system of statements about a subject matter but as a system of conditions for what might be called a relational structure ... [On] this conception of axiomatics, ... logical reasoning on the basis of the axioms is used not merely as a means of assisting intuition in the study of spatial figures...*

Modern intellectual work is committed to the study of structure. But how is such study possible? Structure is transcendent: study of structure aims to bring to light not only the arrangement (*τάξις*) of this or that brain or institution, but the way any one example is, the way it works; and precisely when the study focusses on one person’s brain, on one society’s institution, or on “this building here,” it aims for relations among items, what lies “between” one item and the next, a *πρός τι*, a “toward-ness” that is never itself an item. Structure seems very much like what we call, in caricature, a “Platonic idea.” Yet traditionally an “idea” locates the perfection, the fulfillment, of its examples, the “what the examples intend to be,” and modern concern essentially abandons this “normative” sense of idea to the realm of human volition: “what I or you or they or we *want* the examples to be.” Structure may be—certainly is—transcendent, but not in this ancient sense. In what sense, then?

Heidegger’s account of world reveals our prevalent habitat as structure itself. But structure as engulfing us as well as the items routinely arising for encounter. Not, then, as an object of investigation—not first of all. In this difference lurks one of the major challenges of *Being and Time*, and

* *The Encyclopedia of Philosophy* (New York: Macmillan & Free Press), Vol. 3, article “David Hilbert,” pp. 496-504.

one of its major contributions to logical study.

World as structure—as a where-in that is also a where-upon — is transcendent in the sense that it *is* “more than,” i.e. “beyond” any item or collection of items arising for encounter. Yet not transcendent in the sense that we ourselves would have to gain access to it—as we may or may not gain access to the structure of animals, plants, or minerals. World already engulfs us: we are already intimate with world in our workaday way—even if we must work hard to bring it into view in a contemplative way while talking, writing, or reading. World is “ground” both of things arising for encounter and of ourselves as individuals or communities. But ground in the sense, nearly literal, in which we speak of playgrounds, fairgrounds, campgrounds: world is our place, the arena in which we play and work and embark, and through which things first arise for encounter, have *their* places and become urgent in various ways.

Urgent, I said. Not just things, but world itself *is* as urgent. One urgency, already prevalent prior to intellectual work, is to take care of, to keep up with what arises for encounter. Another is to acknowledge and to keep up with the commonality of world as it takes the form of shared enterprise. Another is to face up to the ultimacy of this ground, its character of battleground where death reigns in counterpoint to the generation and production otherwise thematic in our habitat. And then there are the intellectual urgencies, all of which share one exigency in common: to provide an explicit account of what arises for encounter and of how we rise to it—whether in the name of physics or ethics, biology or psychology, or even philosophy.

§4. *Logical study*

You might now ask what this talk of habitat and urgency has to do with logic. Such talk seems to bear more on human predicaments, precisely what logic asks us to transcend—as has often been said about mathematics, too, that it allows us to forget our actual abode and the practical problems arising therein.

From the beginning, logical study examines the workings of *signification*: first of all in a consideration of the *categories* at work in the intelligibility of circumstances. And logical study examines these categories as they arise in *assertions*: first of all in the distinction between what the assertion calls into center-view, the subject (*ὑποκείμενον*) or the substance (*οὐσία*), and what serves to focus or distract us from this center.

And, finally, logical study examines *inference*, the manners in which assertions may legitimately or illegitimately lead to further assertions: first of all in the Aristotelian syllogism, and more recently in the system-building so well exemplified by Russell's and Whitehead's *Principia Mathematica*.

In contrast, Heidegger's account bears on the *existentials* at work in the habitation of our habitat (ἔθoς), of our condition (ἔξις)—existentials as distinct from categories. Similarly, it asks us to consider assertions as derived modes of *talk*, and as late-comers in the intelligibility already at work in talk. And it proposes a kind of *phenomenology* as the benchmark for contemplative work, a “bringing into contemplative view” as distinct from every sort of careful system-building.

The *differences* are remarkable, and must be maintained. What then is the connection?

Heidegger in fact claims that his account of existentials, of talk, and of phenomenology addresses the very source from which categories, assertions, and inferences may arise, the origin without which these logical concerns drift away from their proper sense and lead into groundless constructions. In effect, he reintroduces the distinction, familiar since Plato, between discourse leading back to origins and discourse based on origins.*

Yet here, too, there's a difference. Traditionally, discourse leading back to origins takes the form of *dialectic* and *elenctic* (or, since Kant, *critique*): we help ourselves and others return to origins by displaying the inadequacy of common opinions regarding inherited and projected accomplishments. In contrast, Heidegger's discourse invites us to dwell *in* origins: to let *them* return (so that origins recall our future).

Still, the origins at issue *give rise* to factual and projected accomplishments. An origin contemplated apart from its fecundity is an origin in name only. And fecundity itself is evident only in its progeny, so that not only familiarity with, but competence in the domain of such progeny is a *sine qua non* of the contemplation of origins. And one such domain is that of logic.

§4a. Signification

Consider first the logical concern for signification. We say and hear, read

* *Nicomachean Ethics*, 1095 a 35

and write many things, and it seems to be our responsibility, apart from logical study, to get any one instance to signify something. But how *can*, how *do* we “get” one instance to signify, to “mean” something? Concretely, it's a problem, and we often fail to solve it. However, logical study addresses this question “in general” and has, over two and one-half millennia, answered the question variously.

Very roughly, Aristotle answers that our sayings become significant when they signify what the things themselves signify. Still very close to the contemplation of origins, he immediately reverts to an ontology: discourse takes place in our effort to account for how things are “by nature” (φύσει), i.e. what they (cities, horses, houses) are “all along intending to be” (τὸ τί ἦν εἶναι). Strange as it may sound to our contemporary ears, ancient logic held that our own sayings (which include hearings) mean something only to the extent that they answer to what *things themselves* “say”—even though often only faintly, since it is also possible for us to dwell on the mere sound, as when children and drunks rattle off the utterances they have heard.

In the few decades surrounding the year 1600, after various mutations of Aristotle's semantics in Thomas Aquinas and other Scholastic logicians, a different answer emerged in such thinkers as Galileo, Bacon, and Descartes: sayings signify by virtue of our own imposition of method. From now on, and ever more emphatically in the course of the next half millennium, the question whether a saying “really says” something gets decided in reference to the construction of evidence leading to it: in reference to methodology, i.e. to the form of the investigation rather than the form of the thing investigated. If by “subject” we mean what must come out of hiding in our discourse, the subject of our sayings lies in our own responses to circumstances. Human being is now the actual subject, as Hegel detected in modern philosophy itself. As for circumstances: they no longer appear as having anything to say, they are only the fund of “objects” mutely challenging our sayings — a medieval word whose original meaning is strangely preserved in its modern acceptance, namely what defies us, what does not address us in its own being.

Philosophers of science rightly underscore this semantic shift: Karl Popper's “logic of research,” Thomas Kuhn's account of “scientific revolutions,” and Paul Feyerabend's arguments “against the primacy of method.” But Kant comes into the question at the level of experience itself, prior to that special cognition we call science: the simplest experience

consists of a manifold of sensory encounters (“intuitions”) in space and time, but only on the condition that this manifold becomes a unit—not, now, by way of the unity of anything encountered (any *object*) but by way of a power of synthesis which can only be ascribed to us.

Essential to the semantics of the Platonic-Aristotelian tradition is the purpose of the things encountered: discourse signifies in various ways, all rooted in the draw essential to what the discourse is about (so that discourse rings hollow until we learn to desire what’s good rather than call good what we happen to desire). Thus ancient logic (as well as ancient literature generally) opens out onto, draws us out into, the nature of things, ultimately divine.

Essential to the semantics of the modern tradition is also purpose, but now understood as that of agency (volition, desire, “interest”)—that of human beings first of all, then too perhaps of some divine agency far away: again here, discourse signifies in many ways, but all rooted in the projected, and that means willed and desired synthesis (so that the first priority of clearly signifying discourse is clarity regarding the volition governing the arranging of affairs). Thus modern logic (as well as modern literature generally) opens out backwards, draws us back into our own nature as agents, ultimately secular.

Both traditions evoke conditions that certainly recall specialized competence. Anyone who has worked with “nature” artisanally can testify to the necessity of learning how to respond to the exigencies (purposes, demands) built into what one encounters, rather than dreaming up schemes for raising, maintaining, and handling, say, horses or geraniums or even barns. Anyone who has conducted laboratory research can testify to the necessity of reverting to the organizational imperatives of the investigation — its objectives, presuppositions, instruments — in order to assess the actual events in the laboratory. Yet we may well wonder: Does the acknowledgement of such conditions establish the primacy of one or the other in our logical study of signification?

Let us re-consider the source of the question, as Heidegger invites us to do...

What *phenomena* are we analyzing in the logical study of signification? Two at once: *things* interconnect, lead to one another, one stands as a sign for another; then too *words* have meanings, interlock with one another, point to something. In pre-logical discourse, these two phenomena meld into one another. And logical study has, from the

beginning, pried them apart and put them back together: analyzed and synthesized them with a view to some ontology, whether ancient or modern.

Now, consider the possibility of dwelling, contemplatively, on the phenomena of signification *without* resorting to an ontology (transcendent or transcendental): What might come into view? What else but where and how we are: the where and the how, namely the world embedding us as well as what we encounter—rather than grounded in either one. What might come into view is our *being-there* in a world that “always already” prevails and so much absorbs us that what we “initially and mostly” heed is its various demands rather than the phenomenon as a whole. And in these demands lie the elements of signification.

The first demand is that we hold our dealings together: a garden, a meal, a trek, a task at work—dealings commonly formulable as nouns or as verbs, as places or as times. In contemplation we may note that the holding-together precedes the details: it provides the “disclosedness” essential to making sense out of details. Indeed, each instance is saturated by—gets its name and definition from—an “understanding” allowing us to “hold ourselves” in the disclosed context. Thus what we “face” or “handle” or “understand” is double: some item demanding attention, but then also the situation itself demanding attention.

The second demand is that we keep up with the items demanding attention. Each item *is* its “lead” into the next. Understanding “happens” first of all as a “letting oneself be led” through the daily maze rather than as intellectual subsumption of an instance under a form or under a rule (even if we enunciate forms or rules in some other context).

The third demand is that the context itself be consummated. There is always a “for the sake of which” hanging over a situation as a kind of governor that not only orders the multitudinous “leads” within the situation but also names, more or less gratuitously, what they all lead toward. Gratuitously, I say, because the name shifts from situation to situation and even from moment to moment within the same situation. In a sport, for instance, the governing consideration seems to be victory, but it might also appear to be prize-money or health-improvement or fellowship or just plain distraction; in the case of a commercial enterprise, one likes to say that monetary profit governs the multiple elements. Yet perhaps such construals are “excuses” that serve either to enhance or to weaken the simple demand that the situation “come to something” and that we

ourselves be there for this advent.

Once acknowledged, these three interrelated demands help bring into relief the primacy of signification. Things arising for encounter *are* as signifying other things, *are* as drawing attention to other things, *are* as leading toward an integration—and even *are* as failing in each of these services—all grounded in “letting-ourselves-be-led” where our “part” is first of all that of acknowledging the draw rather than that of exercising our agency.

What primarily (“immanently”) *is* takes the shape of a “relational whole,” Heidegger says: an on-going affair already including its own multi-layered purposes and all the more demanding for having fuzzy borders (is the unit of signification my university, my department within the university, my home life, or my city, my province, my country, or some divine plan?). Any intellectual effort on our part to “ground” signification and its purposefulness, either in encountered beings or in faculties of the soul, will presuppose what it aspires to ground.

Since Plato, at least, philosophy has unfolded precisely as a study of presuppositions: What do arithmetic and geometry presuppose? What does artisanal competence presuppose? What does nature herself, especially once considered as created, presuppose? What does the simplest experience presuppose? What do the aspirations of modern science presuppose? What do effective social organizations presuppose? —The philosophical task has been to learn to contemplate these presuppositions, to eke out focal points that deserve the name *origins*, to form a discourse focussing attention on such origins rather than only on the problems and accomplishments arising within these various affairs. Totally foreign to the philosophical task is any effort to develop a presuppositionless discourse.

Yet Heidegger adds a twist. The task of phenomenology is to bring into view the *phenomenon* of world, this phenomenon *as a whole*—a phenomenon that “initially and mostly” escapes our notice because it engulfs both ourselves and what arises for encounter, and reigns so completely over our affairs—so much *is* our affair—that we miss it. Yet what we here miss is not what lies “underneath” or “deeper than” what is immediately evident—any more than what the forest woodchoppers miss is underneath or deeper than the trees they are felling. Nor is it the geographical or temporal extent of our dealings, as youths often believe when they desire to travel. If we miss the phenomenon of world as a whole, if this phenomenon does not lie directly before our eyes, the first

reason is that its first “work” is to focus us on the trees. A second reason is that the wholeness here first becomes evident as a burden, an initially very scary one.

Signification names not what we must discover but rather the “relational whole” that we move within and that allows us to uncover whatever trees we happen to come across: in Heidegger's formulation, signification “constitutes the structure of world—the structure in which being-there as such in any instance is.”*

I now call attention to two far-reaching consequences of this account of signification.

First, it provides a liberating perspective on the debate over the role of “construction” in academic understanding. In antiquity this debate took the form of a conflict between nature and convention: whether names most properly “intend” (originally arise from, therefore possibly point us toward) how things themselves are — or rather “embody” (arise from, recall) agreements among speakers for getting on with shared enterprises. In modernity, the debate distinguished immediately between ordinary languages (tongues: English, Swahili, . . .), henceforth assumed to be convention-based, and the specialized discourses of physics and chemistry and the like, where the vocabulary becomes increasingly formula-bound. The former one may study empirically to elicit various structures representing either the conventions of some particular society of speakers or the inner nature of the human mind; but the tongues themselves remain conventional. In explicit contrast, the specialized languages of modern science originally intended to capture directly the various structures of the universe itself: assuming a relation to the divinely designed architecture of creation, they were kin to theology.

We “post-moderns” must ask what sense it can make to speak of structure as “in” or as “essential to” what we encounter either in nature, society or ourselves. There “are,” of course, structures “in” and “essential

* *Being and Time*, p. 87; I have been commenting on the whole paragraph in which this sentence occurs (incidentally, Heidegger's personal copy adds a marginal comment to the term “being-there”: “The being-there in which human being has its being”). Cf. also p. 241: “...sub-structures of beings having their being in other ways ([i.e., other than as being-there-in-world, e.g.] on-hand-ness and life) intrude themselves unawares and threaten to confuse the interpretation of the phenomena [here, being-toward-death].” This is the only occurrence of “sub-structure” in the text.

to” the *accounts* given of the various phenomena “around” us (from stars and planets to atoms and genes) and even “of” us (behavior). The question is: In what sense do these very “logical” structures represent “real” structures? If they *are* only in the accounts, then they represent only what scientific investigation does, has done, might do: all those formulas then function very much like maps for facilitating movement through phenomena, or recipes for cooking up phenomena. They are then structures in the sense of “constructions” on special terrains at special times and for special human enterprises.

The “constructivist” theory has many advantages: it combats popular superstition (the belief that scientists are priests of reality), it explains both why science keeps changing its view of reality and why different sciences may offer incompatibly different accounts of the same phenomena, and it encourages us to respect views of reality proffered by cultures foreign to our own. Yet “constructivism” readily leads to the unsustainable conclusion that scientific accounts are footloose. While healthy education in a science does indeed train one to investigate in the modality of possibility, scientific investigation both proceeds from and looks for necessary connections. And there is no necessity in either maps or recipes.

Heidegger's *Being and Time* provides a genealogy allowing us to distinguish between structure and construction. The relational whole of signification—a whole in which we find and lose ourselves, use and abuse what arises for encounter—is precisely structure, namely world itself. Whether as gardeners, politicians, musicians or chemists—or even just children or idlers—we will of necessity understand our circumstances as relational, contextual, structural. As an abode through which we move and into which things arise for encounter. Thus our talk can highlight some particular structure (of the garden, of the city, of the music, of the investigation as well as of what is investigated) and proceed in that light to refine our understanding. Such talk essentially forecasts circumstances. Yet every forecast brings into view the structure into which we have already been cast—a duality remarkable in any line of work, and perhaps even more clearly in any structured play.

But we can also opt for a sideline position: that of the spectator or “critic” or sportscaster. From the sidelines, the original unity of pre-casted fore-casting dissolves into a mere mixture of what has fallen into place and what the workers or the players are now projecting. And then the whole affair appears as a “mere construction”: already the rules of the game, then

also the interpretation of what has happened to date, and finally the plans for future action—all these taste strangely arbitrary and essentially alterable. And if we ask what is compelling about the work or the sport as a whole, or why relations among things and responses on our part appear necessary, we resort to the thought that these conditions are essentially social and therefore urgent only for any one who chooses to move within the particular society of gardeners, politicians, musicians, chemists, or whatever. But this is recourse from the sidelines.

And secondly, Heidegger's account of signification allows us to raise once again the question of rationality. The easy answer, washed up from the shores of various traditions, assures us that rationality is a property of human beings: the ability to doubt configurations in speech and circumstance, to figure out their whys and wherefores, and to devise new ones. Traditionally, this one property parallels another: the ability to be affected by configurations of speech and circumstance, to respond to these in ways expressing our being affected by them, and to endorse or decry them according to the satisfaction or frustration they accord. On this scheme, rationality represents one half of our nature: on the one hand, human being has the faculty of moving, of being agent of motion; on the other hand, human being has the faculty of being moved, being the patient of emotion. We hear this answer over and over again, if only as tacitly at work in common considerations of human behavior. And it can also be justified in the study of such behavior, namely when we extract ourselves and others from being-in-world and examine “human nature” in such induced isolation. Yet such study cuts us off from the contemplation of the basis of the phenomena under scrutiny (doubting, figuring, devising); more, it *suppresses* the conditions from which the extraction of these phenomena takes place. If we call “irrational” the refusal to account for the full situation, we may rightly say that the easy answer to the question of rationality is itself irrational.

At the beginning, however, the answer was much more strenuous, and Heidegger's account allows us to appreciate its rigor. In Plato's and Aristotle's works, and still in Kant's, what we blithely call “rationality” is a dual phenomenon: dianoetic and noetic, discursive and intuitive. Its one dimension (διάνοια, as illustrated in syllogism) has its home in the signification essential to being in a world; we move along within structures, responding to things and to others structurally, keeping many things together in a shared discourse. Its other dimension (νοῦς or νόησις, as

illustrated in the induced perception of the supportive basis), has its home in the taking-upon-oneself of one's situation as a whole — “readying resoluteness” as carrying the burden of the wholeness of world as it weighs on one. However, on this dual account, rationality is rooted in a threefold attendance to the fixedness of world, the opening of world, and the wealth of world—world as thrown at us (as “old”), as throwing itself forward (as “new”), and as presenting us with things to be taken care of and others to be cared for. To be in a situation is most primordially to be tending, to be caring in three directions at once. And only as moving through or rising to a situation in various modes of attendance, of care, can we exercise rationality, namely the rationality belonging to being in a world. Otherwise we are just carried along, and rationality appears as conformity to the incidental flow of the affair.

§4b. Assertion

Next, consider the logical concern for assertion. In an assertion, something definite gets said. We detect an incarnation of signification, an actualized moment in which something gets signified. We logicians then have something definite before us, an instance we can analyze—as a biology student may dissect a frog to see how it actually works rather than speculate about how frogs fit into the grander scheme of things.

How then does an assertion work? Evidently, what we mean by an assertion is a form of talk in which something gets said about something, and in such a way that the saying makes a claim that “this is the way matters stand.” For two thousand and more years, the name for the matter itself has been “subject” and what is said about it “predicate.” This cut (attributed to Aristotle)* intends to clarify the decision that must be made about any assertion: the question, Does it indeed state how matters stand? becomes, more exactly, Does the predicate belong to the subject?—and, if so, How? On board a sailing ship: Are the sails set for the wind? In a courtroom: Is the corporation, is its manager, guilty as charged? In such cases there is something to look at, the subject, a way of understanding it, the predicate, and the decision: yes or no, i.e. affirmation vs. denial.

We would like to think that shipmasters and sailors, judges and jurors, make the cut naturally, and easily distinguish cases where the cut is

* While Aristotle bequeaths to us the vocabulary of subject and object (τὸ ὑποκείμενον and αἰ κ κατηγορία), Plato initiated the distinction as one of nouns and verbs (τὰ ὀνόματα and τὰ ῥήματα: cf. his *Sophist*, 260d-263e).

possible and those in which it is not so easy (as in the case of questions and commands, expressions of worry, satisfaction or disgust). Whether or not others succeed in making the cut, or even discern the need for it, we logicians have our own work cut out for us: How are we to understand both the analysis to begin with and the synthesis to end with? Over the millennia, logicians have answered variously.

Aristotle first analyzes “things said” into ten categories, the act of predication into four kinds, and its status into three modalities — all in order to focus attention on the question, What counts as a subject? Categories arise as answers to questions about a subject: What is it? What's it doing? What's it undergoing, When is it? Where is it? How many is it? How is it? What does it bear on? What's its condition? How is it poised?—Then each attribution of any one category raises another set of possibilities: Does it intend to reveal a genus? a property? an accident? or an essence?—Finally, each formulation comes with a claim to say either how things necessarily are, simply are, or possibly are (have to be, happen to be, or might be).

Aristotle and two millennia of thinkers after him have invited us to ponder these questions, always with a view to asking or determining what really counts as being: what Aristotle especially, but in the footsteps of Plato, called οὐσία—“substance” being what sailors and jurors must have in view if they are to judge properly. For we may wonder whether it suffices just to say *what* something is, identify it as a ship, a sail, a corporation, a manager. Or just to look at what it's made of: its material. Or to what it's heading for: its purpose. Or to what makes it integrated: a whole. Or to its kind, its family, its kin: its genus. Or to its configuration: its shape.—Aristotle discusses all these avenues in Book VII of his *Metaphysics*, steering the argument toward his own answer in Book IX: What counts as “really being” is its at-work-ness, its ἐνέργεια: it is to this that we (sailors and jurors, too) must ultimately and directly look, although even this looking is complicated by our dealings with things in their *ability* to get to work (their δύναμις), also by our own task to get them to work. And precisely these complications assure that the question of what something *is* never goes away, is never answered in the way ordinary questions might be settled once and for all:

... both anciently and now and always, what is searched and is always obstructed, namely what something is (τί τὸ ὄν), is this: what the substance is (τίς ἡ οὐσία).

For we ever-recurrently *miss* the subject as it “really is,” and get lost in the plethora of sayings about it.

The Aristotelian account of assertion emphasizes an ontology that has bothered readers ever since. Within a couple centuries the Stoics introduced a vastly simplified account in keeping with their vastly simplified ontology. Taking their cue from Socrates, they claimed that responsible judgement must reflect a stand in what we do, in our own mode of response, rather than in the claims imposed on us by what we encounter. Immuring themselves in their own responses, the Stoics speak of “the subject out there” (τὸ ἐκτὸς ὑποκειμένον: the first occurrence, so far as I know, of the now familiar talk of “the external world,” i.e. things outside the walls of the ego). And what’s “out there”? Singulars only: a genuine assertion either points to something immediately available (that-there, you-there, I-here), refers to one by a proper name (an absent singular), or acknowledges that the predicate awaits a focus (there’s something smelly) —definite, intermediate, and indefinite assertions. What does *not* count as a genuine subject is the “secondary being” essential to Aristotelian logic and its distinction between universal and particular in contrast to singular; this has the result that the Stoics concentrate on those forms of assertion we call implication, disjunction, and conjunction, along with the rules of inference germane to such forms — all of which Aristotle and his successors neglected.*

Now, a “subject outside,” and essentially a “that-over-there,” we can only approach as an obstacle to confront and overcome, never as a potentiality to be loved and actualized: metaphors such as “fathom” or “penetrate” or “commune” begin to teeter in their sense. Inspired by the Stoics, modern philosophy soon replaced the talk of subjects with talk of objects, so as to clear the way for redirecting intellectual work on the path of epistemology, where the task is to fathom or penetrate the act of knowing itself: the new subject then becomes human being, i.e. ourselves as grappling with circumstances essentially hostile. Yet this shift into ontological subjectivity calls into question just what predication can mean if there is no subject to be revealed as justifying the attribution. For now the cut has left us with two halves that have nothing much to do with one another. Kant was the first to sound the alarm—and to set logic on a new course relocating assertions into our own realm: “a judgement is nothing

* In his *Stoic Logic* (1953, 1961, and later reprints), Benson Mates has collated the ancient fragments on Stoic logic and offered penetrating commentaries.

other than the manner by which given cognitions are brought into an objective unity of apperception”; what’s at issue here is the coherence of our own field of perception, and assertions are moments within the complex of signification defining that field.*

But what sense can it then have to *analyze* assertions as though they came “one at a time”? The traditional cut makes no sense. As Whitehead remarks of the traditional prototype “Socrates is mortal”:

The proposition may mean ‘It is Socratic and mortal’; where ‘Socratic’ is an additional element in the predicative pattern. . . . The word ‘Socratic’ means ‘realizing the Socratic predicate in Athenian society.’ . . . †

Thus the way is firmly paved for replacing the notion of predication with that of function: ϕx , easily expanded into as many “places” as cognition demands (x “pushes” y at time t into position z : $Pxytz$).

Dante remarks (*On Monarchy*, I, 2) that “any truth that is not itself a principle is demonstrated as following from the truth of some principle.” This understanding of truth entails an understanding of inference that is incompatible with the modern analysis of assertion. Since Kant, assertions are understood as “moments” within an articulation of the signification locating the cognition of circumstances. Each is joined laterally rather than vertically with the others. And the logical question now bears on this joining: How does each assertion get firmly joined with the others? What binds them all together — now that we can no longer appeal to φύσις, “nature” as the power of growth embedded within what we encounter?

Philosophers of science pose this question (Karl Popper and his legacy). Linguists pose it (Ferdinand Saussure and his legacy). Logicians

* *Critique of Pure Reason*, B141. In Kant’s sense of the word, “cognition” is then prior to judgement: a thought in itself.

† *Process and Reality* (1929) (“Propositions and Feelings”). Similarly in Whitehead’s 1920 *Concept of Nature* (Chapter One): only in events do we find something we can rightly call “substances of nature”; for a “logical subject” all we need is an “it,” i.e. a “bare objective for consideration” — everything else, including proper names, amounts to a predicate. Whitehead’s account has a certain phenomenological cogency, to which I myself have attested in *The Sense of Language* (The Hague, 1973). For a strictly mathematical statement, see F. P. Ramsey’s 1925 essay “Universals,” reprinted in his collected works, *The Foundations of Mathematics* (in “Socrates is wise” the proper name has no primacy as naming a “subject”).

pose it (Frege and his legacy). Phenomenologists pose it (Husserl and his legacy). For all the differences in the ways of posing the question, they all presuppose the Kantian perspective on judgement as “nothing other than the manner by which given cognitions are brought into an objective unity of apperception”—in contrast not only to the naïve view that judgements relate two concepts, but also to the Aristotelian presupposition that both the joints and the joinedness of a judgement stem from the subject itself, or rather its nature, the power of growth within what arises for encounter.

Heidegger poses the question all over again. He invites us to shift attention to our primordial involvement with assertions in order to detect the basic presupposition from which both the ancient and the modern presuppositions stem. His account leads to the conclusion that such assertions as “It is snowing” or “Snow is white” are not only derivative, but make sense as assertions only when their source is suppressed—only in a kind of flight from their presupposition.

Logicians not only admit but insist upon presuppositions; the task of logical study consists precisely in highlighting these. But that assertions *suppress*: this sounds entirely foreign to logical study, sounds as though we are really talking about the condition of those who offer or consider assertions, “personal” conditions of no logical import.

Still, Heidegger develops a perspective intending to reveal that and how “suppression” helps us understand not only the possibility and limitation, but also the power and the relevance, perhaps even the inevitable hegemony of logic and its study of assertion. We ourselves engage in the suppression only because it belongs to the very “life” of assertions: they require of us precisely a denial of their parentage. Still, the contemplative rule holds: it is one thing to understand what is said (by oneself or by others), it is another thing to understand oneself in what is said (Kierkegaard*).

But what do we mean by the term “assertion”? Utterances that are either true or false. That, moreover, are amenable to cross-examination: to arguments in defense and in opposition. Even tautologies and self-contradictions, whether logical or semantic, are assertions inasmuch as we determine them, albeit *a priori*, to be necessarily true or false. Most, however, await determination: we must be able to defer judgement until the evidence is in—*a posteriori*. Even judgements undecidable in an

* *The Concept of Dread*, IV, B., (b). A Socratic thought, of course.

arcane domain of consideration are considered either true or false in some other domain—and not to be nonsense. What does *not* count as an assertion is any linguistic formulation that does not present something debatable (even if we might debate whether the directive, expletive, supplication, benediction, or malediction should happen at all). An assertion must, if not invite at least tolerate the question whether it is true or false; we must be able to place it on the docket.

Now we ask what it means that an assertion be placed on the docket. Plato answered (in large part) that it means we recall a measure against which we can learn to assess the assertion. Kant answered (in large part) that there are *a priori* conditions of the possibility of experience to which we must refer in assessing an assertion. Many today answer (again, in large part) that assertions occur within contexts and are assessed, along with the context itself, according to their service within and to the context.

Roughly speaking, Heidegger answers in this latter vein as well: an assertion makes sense in a context, namely when “at work” in the signification essential to a world. In the High North, for instance, the utterance “Snow is white” might be placed on the docket for testing. And Heidegger asks us to consider what is *happening* here—in the High North and on, say, a military expedition. What first happens is that one (the leader, the guide) stops responding to the flow within the situation in which snow itself (this, some, or all) demands response, and then announces a way of understanding what arises for encounter—a way of understanding cut away from responding to the thing itself. For purposes that belong to the purposefulness of the world itself (camouflage, eye-protection), one now insists that something (snow) can be understood *as* something else (white). The understanding here introduced happens on the sidelines as it were: not *on* a site, even though essentially (originally, primordially) *from* a site. Police detectives and laboratory technicians sit in judgement of things without responding to them in *their* terms—and we can only applaud the way such sideline judgement can “get at” things.

Yet it is one thing to understand what arises for encounter while we are caught up in responding to it, and it is quite another matter to understand it while locating ourselves at a distance from it. Indeed, understanding-at-a-distance differs from understanding-on-site—not in kind but in mode. For understanding-at-a-distance is *derived* from understanding-on-site. While both modes of understanding are lodged in some complexity of involvement (of *evolvment*) that Heidegger calls

“world,” both *things* (what arises for encounter) and our *fellows* differ radically according to the mode.

Belonging to the mode of understanding-at-a-distance, an assertion focuses us on something under investigation. It takes place within a complex of things, a complex structured by the particular signification defining a world. All these *other* things continue to be understood on site, i.e. together with items simply used, e.g., a microscope, pads of paper, the clock on the wall—most everything “on the ship,” as it were, except the one item being investigated and now at issue in the assertion. What is under investigation appears in a mode Heidegger calls “on-hand-ness”: things here are no longer “at work” but rather available for our aloof scrutiny. What is actually *used* appears in a mode he calls “at-hand-ness”: things here are precisely “at work” and are available as they make demands on us and as we use them in their demands on us. At-hand-ness is prior to on-hand-ness, Heidegger argues at length.

Assertions also invoke a derived mode of understanding among our fellows—what we call communication. On site, engaged with things at hand, we address each other within a shared understanding. What's shared is world, an on-going, very possibly frustrated affair. We already commune with one another, and therefore both communicate and notice misunderstandings in the communication—normally, by continuing to focus and refocus on the at-hand things arising for encounter in a shared world. But when we grill another, or find ourselves grilled, we enter into an investigative mode where the question is whether to believe the testimony offered: here we consider (we defend or criticize) what is said, this now understood not as a part of an on-going communing within a shared world—but rather, precisely, as an assertion. Such consideration then not only leads us to consider *things* in a derived mode of their being, but also *each other* in a derived mode of our own being—a derived mode of understanding one another.

Yet both modes—the primordial and derivative understanding (whether of things or of our fellows)—happen within the signification defining a world. For understanding names our evident ability to make sense out of the course of the affair, and this means to address one thing as tying into other things projectively. Every moment of understanding is therefore also a moment of interpretation, an anticipation of ties. Assertion modifies this interpretation not only by creating a distance from things and fellows, but also by depriving both, things and fellows, of their primordial

being: at-hand-ness in the one, together-ness in the other. Primordial understanding is shared and addresses each thing *as* something further in the shared affair. Assertoric understanding seeks agreement on the assertion first of all, and addresses things *as* having properties. Thus each mode of interpretation has its own “as” deserving its own name: Heidegger calls the primordial one “hermeneutic” and the derived one “apophantic”—the anticipative vs. the assertoric “as.”

But how does the derivation happen? And what are the consequences for intellectual work, and especially for our own work, called philosophical?

Already and precisely the understanding primordial to being-in-world entails an oblivion: we understand each thing by leaping over it toward the next, leaving not only the first but all its surroundings behind us, out of sharp focus, out of explicit account, in a penumbra. Oblivion of world conditions the possibility of being-in-world. Startled by something on hand that conflicts (by its presence or its absence) with easy passage through the routine, we must choose whether to push ahead directly (in the fashion of Odysseus at his characteristic best), express indignation at a standstill (as Achilles does in response to Agamemnon's insult), or sink away in an effort to forget (as the “common sort” is said to do). But philosophy itself introduced another possible choice, one now distinctive of our Hellenic heritage: we may *investigate* the matter. And how do we investigate? We *suspend* what has already fallen into oblivion, namely being-in-world of the primordial sort, and institute another mode, one in competition with the first. And since the first keeps pressing in upon us, the suspension must take the form of *suppression*. We thereby *force* things (those now receiving investigative attention) into the mode of on-hand-ness, our fellows (those “around” the matter) into the mode of material witnesses, and discourse (its new focal point) into the mode of assertion.

And in this modification of discourse lies the consequence of greatest interest to intellectuals. First of all, any discipline rightly called academic unfolds in this modified discourse—as does any liberal justice system, as does any modern commercial enterprise, as does (at essential moments) any hobby such as stamp-collecting or bird-watching. But, more importantly, the very necessity of such modified discourse seduces us away from the primordial discourse not only making the modified versions possible but having possibilities unknowable within these versions. Heidegger argues throughout *Being and Time*, and in many pages of his later works, that the

discourse most familiar to us as intellectuals enjoys its power and its hegemony owing to a radical oblivion: in Plato's image, our dominant intellectual discourse fortifies the dark precisely by way of its expertise in "searching from suppositions and toward endings rather than toward beginnings" (*Republic*, 510b). Fortifies it, I say, whereas we would prefer to think it helps dispel it. Fortifies it, Heidegger says, but in a way that limns our destiny, not in a way that we could simply reverse, as Plato seems to suggest.

In our oblivion, assertion appears to locate the phenomenon of discourse itself. Heidegger tries to show us how, as thinkers, we have a vested interest in countering this appearance, this supposition, this oblivion. The most obvious vested interest is that of preserving the vocation of contemplative discourse itself—the discourse of our own traditions since the early Greeks, perhaps also the discourse of traditions sibling to our own. For otherwise these discourses appear stunted if not dead, relics to be buried where they can no longer infect the living with their vermin, and we turn philosophy into a maidservant of more vigorous academic disciplines and more pressing social questions. Yet the "vested interest" here is not self-serving: it serves the human enterprise itself. For *all by itself* assertoric discourse misappropriates the power of any enterprise, including institutions of education, justice, and commerce. And, in so doing, leaves a gaping abyss over which we all teeter: the loss of what being-in-world has to offer in the way of meeting what arises for encounter, communing with others, and taking the whole of a world upon ourselves.

Heidegger invites us to reconstitute discourse in its fullness. And that means as an equi-primordial dimension of being-in-world, along with understanding and attunement. Primordial discourse already pervades signification with all the latter's manifold urgencies, so that ordinary talk is inseparable from both our understanding of what's going on (traditionally, an anticipation of the issue) and a mood of urgency (traditionally, a recollection of the issue). Ordinary talk embodies signification, understanding, and mood, evincing but not asserting all these "at once." And the "best of all talking" (Faulkner)—whether spoken and heard on site or located in compositions that must be re-spoken and re-heard—elicits such prior declaration, establishing understandings of and attunements with our circumstances and our fellows that assertoric discourse must presuppose and suppress.

But what do such considerations have to do with logic, committed as

logic is to discourse as assertion? Well, logic does have this peculiarity in common with any discipline: it can be taught and learned without any stock being taken of its necessary presuppositions, and in this way contribute to the oblivion. But, unlike perhaps many disciplines, the windows of opportunity are there to be opened, without changing the topic. Logic illustrates at every turn its own dependence, if only we see what we are doing in the discipline.

The discipline of logic *can* unfold as a re-enactment of the genesis of assertion—and thereby open the possibility of understanding not only its derivative status but also the very character of our assertion-based institutions. We then avoid fetishizing their apophantic character. In this regard, the evolution of logic into the study of syntax can be most liberating. For syntax makes no claim about what arises for encounter or how encounters engage us communally. Syntax has nothing to do with truth in the traditional sense.

§4c. *Truth*

From the beginning (in the works of Plato and Aristotle), integrity of discourse appeared as depending on the "presupposition" that "there is" truth: the daily business of talking something through, the necessity of inferring conclusions from premisses, the possibility of recalling counter-examples to discredit generalizations—all presuppose that discourse is beholden to truth and may therefore fall into falsehood. And at the end (in the works of Alfred Tarski, say), the question of integrity, although distinctively shifted to that of formal systems, depends on criteria for deciding whether to accept a formula into the system or not: "there is" (again, more an imperative: "there must be") truth—although the criteria now appear in purely syntactical form, and reflect simply the necessity for a yes-no decision.

Plato and Aristotle reveal the delicacy of truth on site—on the playing field, as it were. For instance, they invite us to distinguish between truth as accidental and truth as essential: it may be "true" that a certain man is bald or a certain woman not bald, or even that men have penises and women have vaginas, but these determinations say nothing about their ability to make shoes or govern a city—and it is in these capacities rather than in those other conditions that the essential truth about human beings will lie. Assertions are ultimately true if and only if they issue from insight into the "innerness" of the subject, its nature. With Kant and Hegel, the

subject becomes the knowing one, the human spirit rather than what is known in circumstances (transcendental rather than transcendent), whereupon the issue seems to shift more onto the plane of assertion: it becomes imperative to systematize our sayings, both in philosophy proper and in other intellectual disciplines. Still, though, truth remains that of an “innerness” we must “fathom”—really, one to which we must return.

During the first decades of the 20th century much intellectual work developed to the point where talk about fathoming a subject begins to lose its sense. Mathematical disciplines in fact present “systems” as testing grounds for formulations proposed for possible integration into the manifold of a “research program” (Imre Lakatos). The chief criterion of inclusion becomes whether single formulations or entire systems survive “resistances” (Wilhelm Dilthey, John Dewey), these themselves largely authenticated precisely in reference to the system itself, not directly in reference to what arises for encounter. What sense does it then make to talk of truth at all?

Whether “material” (physics, biology) or “formal” (mathematics, logic), a system either hangs together or not when faced with new challenges (largely prescribed by the system itself). However “beholden” assertions may be to in-house considerations and external challenges, they are no longer at all beholden to truth in the original sense, and only somewhat beholden to what happens on the playing field itself, namely to the rules of the game in force at the time of the playing. Revelation of the subject (whether ancient or modern) is no longer an issue for a discipline. There no longer seems to be any need to debate whether “there is” truth. The only “revelation” now needed pertains to apprentices in a discipline, who must indeed (if they are to fully mature) overcome their naïve presupposition that the discipline itself will lead them to the truth of circumstances or of themselves. And yet precisely this “propaedeutic” presupposes truth: not the truth of nature, and not the truth of the human subject (“spirit,” Hegel calls this truth), but the truth of investigation (what investigation essentially does). Significant work in any modern academic discipline, as well as proper functioning of any modern liberal institution, requires a profound acknowledgement, even a fathoming of, the exigencies of procedure, and that means again submission to them—to inherited methodology.

What in modern disciplines generally appears as the primacy of method (“true” is what works according to the method) unfolds in logic as

the primacy of syntax, where the notion of truth reduces to the question of formulating decision procedures for accepting or rejecting formations on purely constructive grounds. Both contribute to the general project enunciated by all distinctively modern intellectual work: the development of powerful tools for manipulating circumstances so that what arises for encounter will serve human interests. It seems natural that “true” should then drift into meaning what counts as a such a tool, what serves the purposes of the enterprise itself. And this enterprise, for all its variations, we may characterize as technology.

Now, Heidegger's entire work, spanning the bulk of the middle years of the 20th century, has taken the form of an invitation to puzzle over this historical development of the understanding of truth. While others at the outset of this era (e.g., John Dewey, Rudolf Carnap, and Karl Popper) also invite us to overcome the illusion that truth is a matter of formulating, in pre-modern fashion, “how things are,” their intent is to lure us into cleaner and leaner versions of the method essential to modern investigation. They do for modernity what Thomas Aquinas did for Christianity. In detecting puzzling questions where these others refine mainstream answers, Heidegger appears as a leading heretic of our age.

But what is there to puzzle about in the “clean and lean” understanding of truth, namely the primacy of method and therefore, in logical study, of syntax?

First of all, its *power*—and not just its effectiveness, but also and more centrally its commitment to promoting power over what arises for encounter and for establishing power groups competing among themselves for such power. This commitment puzzles those who can wonder whether the commitment to power does justice to our dealings with circumstances or to our dealings with others. For many, this is just a matter of preference: whether one happens to enjoy power-plays as against, say, sentimental attachments to things and people. But the puzzling we find in Heidegger's works arises from a careful understanding of our Greek and Scholastic traditions in which we can find modes of discourse acknowledging rather the power of circumstances themselves as the source of any power an individual or society happens to have acquired. How did this original account of power (the power of nature, the δύναμις of φύσις) ever evolve into the modern account (the power of human subjectivity)? The ready-made answer reads: the accounts of our distant ancestors are immature, and our own time has grown beyond them. In contrast, Heidegger answers:

the oblivion essential to being-there hides from us the original commitment to power and thereby gives free rein to power as *ours*—presupposedly. Whereas, then, others might dismiss the literature of our forebears as childish, Heidegger argues that we must recover it as our heritage *and* as a puzzle—the puzzle initially evident in the contrast between, say, Plato and John Dewey on the question of knowledge, or Aristotle and Tarski on the question of truth. But of course this version of the puzzle comes home only to those who have learned to participate in the power of the original mode of discourse.

Secondly, and in tandem with the first puzzle, the “clean and lean” understanding of truth promotes the primacy of *pictures*—and not just the images cast by projectors in classrooms, charts in boardrooms, and TV-sets in livingrooms, but also and more importantly the development of systems as dictating the procedures of instruction, commerce, and entertainment—even the behavior of “nature” understood in Kantian fashion: “the existence of things inasmuch as it is determined by universal laws.”* This development puzzles those who have learned to work with the “matters themselves” that the pictures picture; already there seems to be an unbridgeable gap between academic understanding and hands-on understanding of situations. But it will also puzzle those who, having studied our traditions from Plato and Aristotle onward, have learned to appreciate the arguments that pictures of circumstances at best simulate and at worst distort: in the one case (of icons), they place us at a distance from where we need to be; and in the other case (of idols), they leave us with the detritus of where we need to be. And where need we be? Plato and Aristotle answer: “in contact” with circumstances as these are “in themselves”—this contact, this event, deserving the name “truth.” What’s puzzling is that modern philosophers have developed the thought that rigorously formed pictures precisely assure whatever “contact” is needed or possible. Leibniz, in proposing the need for a formalized language, one with special characters, wrote: “No one should fear that the contemplation of characters will lead us away from things (*à rubus abducat*); on the contrary, it leads us into the interior of things (*ad intima rerum ducet*).”† But the “interior of things” becomes identified with the interior of a system: learn the one and you learn the other. Such identification (of

* One of many formulations: “Natur ist das Dasein der Dinge, sofern es nach allgemeinen Gesetze bestimmt ist.” (*Prol. to Any Future Metaphysics*, §14)

† Letter to Walter von Tschirnhaus, dated May 1678.

opposites, it would seem) *works* at the institutional level of education, government, and entertainment. As *inherited*, and that means already defining our institutions, this “picture-theory” of truth forbids us to dismiss it. The question is again whether we intend to promote it or to question it: whether we can *rest* with this inherited version of truth.

Heidegger proposes his own terminology for characterizing the “clean and lean” understanding of truth: when pursuing intellectually what we loosely formulate as “how things are,” we initially move within a *formalized* world, a framework that can only respond to what arises for encounter as resource (natural resources, human resources)—as on hand for encounter, investigation, and consumption. Just as what arises for encounter is thereby presupposed as having this derivative mode of being, the framework itself is presupposed as a mode of being-in-world committed to re-arranging things, putting them in place, stipulating the place for what arises for encounter, and thereby allowing us to understand the latter as essentially fungible; thus the power and the picturing essential to, and at issue in, modern intellectual work. The integrated dualism of framework and resource sets the conditions for any determination we would accept into the fold of intellectual work. It locates the basic truth that is never discussed, only presupposed by (or rather *for*) front-line research that otherwise seems to investigate “how things are.”

Heidegger's terminology does indeed intend to frighten us. But it also intends to lure us into raising the question of truth all over again. Already in *Being and Time* he asks us to look at what deserves the name “truth” in pre-intellectual modes of being-in-world — and work from here to understand how truth could eventually take on the dualism of framework and resource. I here offer a thumb-nail sketch...

Lodged in a world, each of us *is* as moving along through the routine—through the signification—encountering things but passing immediately over and beyond them, working with others but taking them for granted, defined by the context but heedless of it. Thus a paradox: things, others, world are all disclosed—but they are also hidden, neglected, missed. How so? World itself absorbs one and all in its daily business, and functions well precisely as routine—so long as things at hand behave themselves. Truth is not “normally” an issue because we are already in the truth: in a world, rising to meet what arises for encounter and working along with others—all this *essentially*, since a world *is* as allowing us to take care of things, *is* as shared with others. But, precisely because such truth *works* by

leaving all these matters *concealed* as they are in themselves, truth *might* become an issue.

The question is *how* truth becomes an issue. And in two senses: Under what conditions does the question of truth make sense? *and* What happens when we *find* ourselves fully in the truth?

Heidegger's entire *Being and Time* intends to bring the conditions of truth out of the closet: first, the phenomenon of world and then the phenomena of clouding over of world, the phenomena of temporality, the phenomena of historicity. Yet these conditions themselves only become clear to us as we rise to carry the burden they bring to bear on us. Heidegger works out this rise under the double name I translate as “readying resoluteness.” Only at such a moment of rising may we detect the phenomenon of world itself, and then also perhaps the full extent of such micro-phenomena as I have outlined under the rubrics of signification and assertion—the topics of logical study. Only at such *moments* of truth do the *conditions* of truth avail themselves to us.*

And whether they do or not makes all the difference in the world when we turn to the question of what *happens* when we find ourselves in truth. Heidegger claims that truth is most primordially “unconcealment”: the undoing of the concealment essential to being-in-world. In another metaphor: opacity becoming momentarily transparent. Whatever the imagery, truth is an event allowing us to make determinations (inventions of the new or confirmations of the old) as well as to form anticipations (hypotheses, hunches, theories) and to define regions of investigation (of data, evidence, problems)—in short, to concern ourselves for “what's true” and to accumulate and bequeath “truths.” But what happens in this unconcealment, this transparency is not just the “clarity” that intellectuals from Plato onwards have demanded (at first as a result of truth, later as defining truth itself). What happens is a transfiguration of what and who arises for encounter. In *Being and Time* we read a number of very pointed formulations of this transfiguration, and I cite only one:

The being toward things at hand which understands and takes care of them, and the being toward others that cares for them, are

* Cf. the last paragraph of “What is Metaphysics” (1929): “Philosophy gets going only for one whose own existence leaps authentically into the basic possibilities of being-there in its wholeness.” (Die Philosophie kommt nur in Gang durch einen eigentümlichen Einsprung des eigenen Existenz in die Grundmöglichkeiten des Daseins im Ganzen. *Gesamtausgabe*, Vol. 5, p. 122)

determined from *their* ownmost ability to-be-themselves.*

Their ability to be—their δύναμις. Beings as they are in themselves—αὐτὰ καθ' αὐτά. And yet in our care—and only derivatively under the rationality we borrow from the signification and discourse “always already” embedded in our world.

Crucial in the event of truth is a transfiguration of our “being toward” what arises for encounter. This in contrast to any determination of what is essential in what we encounter (the transcendent version of truth), and also to any determination of what is essential in the encountering itself (the transcendental version of truth). Determinations of either sort become renewedly possible only at moments of transfiguration. Otherwise, determinations are only inherited—as predications in search of their subject, as encasements of a nothingness to which we may awake at moments preparatory to truth.

Now, if Aristotelian logic promotes truth as the determination of things, and if Kantian logic promotes truth as the determination of our own conditions, the best of the logic of the 20th century has no truck with truth at all. Whether Bernays proves the independence of a primitive, whether Gödel proves there are undecidable propositions in any formalized arithmetic system, whether Tarski formalizes the concept of truth in formalized languages—we are not invited to engage in the question of truth in any of the traditional senses, nor in Heidegger's.

Does the study of logic then necessarily promote oblivion? I answer again that it certainly *can* promote it—just as *any* discipline can, and for the reasons that Heidegger himself discusses at length: oblivion *belongs* first of all to being-in-world itself, and then *especially* to any institutionalized discipline.

Logic, too, is *inherited*: it forms a large component of what's been handed down to us, that within which academics *especially* work. Logic forms the backbone of what Heidegger calls the technological framework

* *Being and Time*, pp. 297-8. Since many readers seem to miss the centrality of this thought, I cite three of many other related passages: On p. 87 he claims that things are *able* to declare themselves in their “in-itself-ness” precisely as we are able to respond to them as at hand in a world (our “default” condition). On p. 122 he distinguishes caring for others that robs them of their care and caring for others that frees them for their care. On p. 264 he claims that accepting our mortality first allows us to understand the ability-to-be of others and to cease confusing *their* possibilities with our own.

assuring that the intellectual understanding of what arises for encounter commits us to understanding it as resource to be exploited. As much as any intellectual discipline, the study of logic *can* simply promote the technology defining our heritage, indeed our world as inherited.

The alternative? To think through the aspirations of logic *as* the backbone of our heritage and *as* prejudicing our understanding of signification, discourse, and truth. At its best, logical study does this—or rather it *can* do it, is perhaps better suited to providing the opportunity to do it than any other academic discipline. And, in doing so, it may abide by the precepts of truth Heidegger has suggested: truth is a matter of unconcealing, allowing to become transparent what otherwise remains opaque. Contrary to truth is every effort to determine *which* inherited accomplishments are true: for this can only mean to decide on which to accept in its opacity. We may detect in such “passion for truth” a commitment to what Plato and Aristotle called δόξα, where one only questions what *view* is “right.”