

resistance to sense evidence and the “eternally popular sensualism” (JGB 14, KSA 5.28), though the antiteleologists and Darwinists oppose this resistance to the senses (dumbly) and the imperative that the investigation of knowledge can only proceed through the senses is attractive to a future race of rough machinists and bridge builders (JGB 14, KSA 5.28–29): “In order to pursue physiology with a good conscience, one must hold that the sense organs are *not* appearances in the sense of the idealist philosophy: as such they could be no causes! Sensualism at least therein as a regulative hypothesis, in order not to say as a heuristic principle . . . would the outside world be the work of our organs? But then our body, as a piece of this outside world, would be the work of our organs! This is, as it seems to me, a fundamental *reductio ad absurdum*: assuming that the concept of a *causa sui* is something fundamentally absurd. Consequently is the outside world *not* the work of our organs—?” (JGB 15, KSA 5.29). Hence, Nietzsche is no thoroughgoing empiricist in the Humean or Lockean sense, for he criticizes empiricists for equating sense experience with knowledge, assigning to individuals the capacity of autonomously constructing ideas independently of society, and identifying all reality by discrete individuals.

7. Hume also argues in *Dialogues Concerning Natural Religion* that we can rule out cause because it is contradictory, which is a distinct criticism from the one dependent on the empirical criterion of meaning: thus, he speaks of “the contradictions which adhere to the very ideas of matter, cause and effect, extension, space, time, motion; and in a word, quantity of all kinds” (David Hume, *Dialogues Concerning Natural Religion*, ed. Norman Kemp Smith [Indianapolis: Bobbs-Merrill, 1947], 131). Berkeley’s critique of matter similarly depends sometimes on the assertion of contradiction in the very idea and sometimes on the absence of an intuitive source of the idea.

8. For instance, Nietzsche notes that “pleasure and displeasure [*Lust und Unlust*] are mere consequences [*Folge*], mere accompanying appearance [*Begleiterscheinung*]” (Early 1888, 14[174], KSA 13.360).

JSP

Knowing, Counting, Being: Meillassoux, Heidegger, and the Possibility of Science

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ABSTRACT: In his book *After Finitude*, Quentin Meillassoux criticizes post-Kantian philosophy for its inability to explain how science is able to describe a world without human beings. This article addresses that challenge through a consideration of Heidegger’s thought and his thinking about science. It is argued that the disagreement between Meillassoux and Heidegger comes down to a question of first philosophy and the priority of logic or ontology in philosophy. Ultimately, Heidegger’s emphasis on ontology in philosophy is superior in its ability to give a more comprehensive account of science and thinking about things themselves.

KEYWORDS: Meillassoux, Heidegger, science, epistemology, ontology

Not everything that can be counted counts,
and not everything that counts can be counted.

—WILLIAM BRUCE CAMERON, *Informal Sociology:
A Casual Introduction to Sociological Thinking*
(though often attributed to Albert Einstein)

In *After Finitude: An Essay on the Necessity of Contingency*,¹ the contemporary French philosopher Quentin Meillassoux seeks to revive a precritical

style of philosophy in which, along the lines of the Galilean/Cartesian mathematization of nature, philosophy aspires to know the primary qualities of things, that is, “things in themselves.” Meillassoux is acutely aware that such a task seems quaint in light of Kantian and post-Kantian philosophy, which in one form or another dominates contemporary philosophy. Hence, in order to return philosophy to something like its precritical ways, Meillassoux recognizes that he needs to find a way to challenge the coherence of post-Kantian philosophy. He makes his challenge by introducing a problem in the philosophy of science: the problem of how science is able to describe a world without human beings. With this problem, Meillassoux hopes to undermine post-Kantian philosophy with a *reductio ad absurdum* argument that will pave the way for philosophy to once again consider thinking things in themselves.

In this article, I want to address Meillassoux’s challenge through a consideration of Heidegger’s thought and his thinking about science. I do this for three reasons. First, focusing on one post-Kantian thinker rather than all the philosophers included in Meillassoux’s rather sweeping indictment will allow the fundamental issues to be defined more clearly.² Second, though Meillassoux’s indictment includes all Kantian and post-Kantian philosophy, there are clear indications that Heidegger is one of the central figures in post-Kantian philosophy that he is criticizing. Finally, from his earliest writings onward, Heidegger’s texts are filled with references to and reflections on science and technology—including analyses of the mathematization of nature that serves as Meillassoux’s ideal for philosophy. So, whether or not the philosophy of science was at the center of Martin Heidegger’s thinking and development throughout his career,³ he provides us with ample resources for dealing with the issues in the philosophy of science raised by Meillassoux’s indictment. What we will find, I will argue, is that the disagreement between Meillassoux and Heidegger comes down to a question of first philosophy and the priority of logic or ontology in philosophy. Ultimately, I will argue that Heidegger’s emphasis on ontology in philosophy is superior in its ability to give a more comprehensive account of science and thinking about things themselves.

Meillassoux is plain about the thesis he wishes to support in *After Finitude*; it is the Cartesian thesis that “all those aspects of the object that can be formulated in mathematical terms can be meaningfully conceived as properties of the object in itself. All those aspects of the object that can give rise to a mathematical thought (to a formula or to digitalization) rather than to a perception or sensation can be meaningfully turned into properties of

the thing not only as it is with me, but also as it is without me” (AF, 3). Meillassoux recognizes that his thesis runs counter to the prevailing post-Kantian orthodoxy in philosophy for which he coins the term *correlationism*. Correlationism, which comes in both weak and strong versions,⁴ is “the idea according to which we only ever have access to the correlation between thinking and being, and never to either term considered apart from the other” (AF, 5). The thesis of any correlationism, as he puts it elsewhere, is that there is “no object, no being, no event, or law which is not always-already correlated to a point of view, to a subjective access,” such that any “exteriority they elaborate is essentially relative: relative to a consciousness, a language, a *Dasein*, etc.”⁵ Hence, according to Meillassoux, correlationist thinking can only make sense of statements about things and events *after* those things and events have been given to some consciousness (transcendental or otherwise). Meillassoux argues that there is a problem with such a view. Contemporary science commonly makes what he calls “ancestral” statements, that is, statements about “reality anterior to the emergence of the human species—or even anterior to every recognized form of life on earth.” Such statements are based upon what he calls “arche-fossils” or “fossil-matter,” that is, “materials indicating the existence of an ancestral reality or event; one that is anterior to terrestrial life” (AF, 10). To a realist, such statements are unproblematic; they correspond in some way to reality prior to the existence of human beings. However, Meillassoux notes that the realist interpretation of ancestral statements is inadmissible to the correlationist insofar as it is interpreted literally, that is, insofar as “the realist meaning of the ancestral statement is its *ultimate meaning*” (AF, 14). Such is not the case for any correlationist philosophy. As Meillassoux puts it, the correlationist adds a codicil to the ancestral statement: “Event Y occurred x number of years before the emergence of humans—for humans” (AF, 13). For the correlationist, then, there are two levels of meaning: the ordinary realist meaning and the more originary correlationist meaning activated by the codicil (AF, 14). However, as far as Meillassoux is concerned, “an ancestral statement only has sense if its literal sense is also its ultimate sense” (AF, 17). To add a second level of meaning (as the correlationist does) amounts to making the ancestral statement nonsense. If asked, for instance, whether the accretion of the earth occurred 4.56 billion years ago, Meillassoux claims that the correlationist must equivocate and say yes and no: “yes” because the statement is objective and “no” because the event cannot have existed in the way in which it is naively described, uncorrelated with a consciousness (AF, 16). In other words, “it is a true statement, but what it describes as

real is an impossible event; it is an 'objective' statement, but it has no conceivable object" (AF, 17)—which is nonsense. Hence correlationism cannot make sense of such scientific statements. As he puts it elsewhere, "For a transcendental philosopher, for what I call 'correlationism,' this makes no sense—it is an absurd question to ask, 'What would the world be if there were no humans?' 'What would the world be like if we didn't exist?'"—This is an absurd question, *the* absurd question, I think, for every Kantian or post-Kantian philosophy" (SR, 328–29). As Meillassoux sees it, the nature of scientific discourse—particularly its mathematical form—is at stake here. We need to answer how it is that mathematics is able to describe "the great outdoors" (as he puts it), a world where humanity is absent (AF, 26). And post-Kantian philosophy is not up to the task.

It should be noted here that Meillassoux's realism, despite making claims about reality, is nonetheless an epistemological thesis. Meillassoux's point is not simply about the mind-independent existence of things; like most presentations of (scientific) realism, his realism is also committed to arguing that scientific claims are literally true (or false) and that they give us true or approximately true descriptions of a mind-independent world.⁶ This is consistent with Meillassoux's modernist approach, which starts with assumptions about distinctions between subject and object, thought and extension, primary and secondary qualities, and *knowing* the external world. Indeed, by defining post-Kantian philosophy as correlationism, Meillassoux is characterizing the whole of the tradition since Kant in epistemological terms.⁷ As a result of his epistemological approach to science, his focus is on the distinction between knowledge and belief and the method by which we can have legitimate knowledge of objects. This concern is most evident in the second chapter of *After Finitude*, where Meillassoux turns to accusing correlationism of putting limitations on reason. By limiting reason, correlationism is fundamentally "religious" and fideist when it comes to talking about the absolute,⁸ that is, "a being whose *severance* (the original meaning of *absolutus*) and whose separateness from thought is such that it presents itself to us as non-relative to us, and hence as capable of existing whether we are or not" (AF, 28). Correlationism thus is an anti-*absolutism* that rejects all possible knowledge and access to reality independent of our specific point of view (SR, 427). However, by forbidding reason any claim to the absolute, every belief about the absolute becomes equally legitimate in terms of knowledge (AF, 46–47). In other words, what concerns Meillassoux is that, given competing claims about, for example, the origins of the universe, we need to have some way of determining

which statements are true and which are false. Meillassoux's complaint is that the correlationist cannot make that determination because the competing sayings are part of two incommensurable language games or two different compartments toward things. With no way to adjudicate between what is being said about something like the origins of the universe, one is left to have faith in one or the other of these sayings.

There are two reasons it is important to point out the epistemological foundation of Meillassoux's realism and criticism of post-Kantian philosophy. First of all, it highlights the fact that so-called antirealism in the philosophy of science does not necessarily involve denying the external world and the existence of things prior to or subsequent to the existence of human beings. Antirealism does not automatically reduce to idealism, as Meillassoux wants to suggest.⁹ So, for instance, in the case of Heidegger, who cannot clearly be labeled a realist or an antirealist, there are numerous instances in which he acknowledges the existence of things without human beings. For instance, in *Being and Time* he notes that "beings *are* independently of the experience, cognition, and comprehension through which they are disclosed, discovered, and determined" (GA 2, 244/172). So, even though "reality is ontologically grounded in the being of Dasein," that does not "mean that something real can only be what it is in itself when and as long as Dasein exists" (GA 2, 280/196). "With the discoveredness of beings, they show themselves precisely as beings which beforehand already were" (GA 2, 300/208). Nature can "be in its own way, without occurring within a world, without the existence of a human Dasein and thus without world" (GA 25, 19/14). Hence "beings are in themselves the kinds of beings they are, and in the way that they are, even if, for example, Dasein does not exist," such that "the cosmos can be without humans inhabiting the earth, and the cosmos was long before humans ever existed" (GA 26, 194, 216/153, 169).

The second reason it is important to point out the epistemological foundation of Meillassoux's realism and criticism is that Heidegger is not a "correlationist" or a transcendental philosopher in the Kantian sense (see, e.g., GA 26, 203ff./159ff., esp. 210–11/165), that is, he does not start from an epistemological standpoint that treats knowledge as a relation between a knower or subject and an object known through the subject's representation of that object. Indeed, Heidegger is critical of such an epistemological standpoint, which he finds ontologically inadequate. It is just such a standpoint—and the distinctions it makes between an independent, worldless subject and objects present-at-hand that are subsequently connected—that

Heidegger thinks needs to be collapsed through an understanding of who and how we are as being-in-the-world. This is why labels such as “realism” and “antirealism”—which depend upon that modern epistemological standpoint—do not fit Heidegger’s thought very well.¹⁰ Likewise, Meillassoux’s question about the accretion of the earth—and, more generally, his concerns about warranted belief—is a matter of correct (or incorrect) belief based upon the methods and concepts used within a particular (scientific) discipline. The correctness of those scientific findings is not a matter of dispute for Heidegger. Indeed, Heidegger begins his career wholeheartedly accepting scientific results (GA 1, 3), and while his understanding of science evolves beyond that early naive realist position, he continues to maintain that it is not possible, given its success, to be hostile to science (e.g., GA 65, 156/108; GA 14, 88–89/72). The suppositions of, for example, physics are correct (GA 79, 8–9/8), and Heidegger notes that he has no wish to replace or reform the sciences (GA 41, 10/10).¹¹ However, Heidegger does argue that the correctness of assertions is indebted to a more fundamental, ontological understanding of truth as *alētheia* and the openness of being.¹² In many ways, then, Meillassoux’s objections arise from a misunderstanding that overlooks Heidegger’s essential insight and moves the discussion back to a level to which Heidegger was opposed.

Given his concern with the question of being, we need to be reminded that Heidegger takes an ontological approach to the characterization of specific sciences and science in general. Such an approach is announced in the introduction to *Being and Time*, where Heidegger links the crises in the foundation of various sciences with the need to once again ask the question of the meaning of being (GA 2, 12–15/7–9). Approaching science from an ontological perspective means two things. First of all, it means providing an existential concept of science, the outlines of which Heidegger sketches in a few different places.¹³ Such a concept characterizes science as a possible way to *be*, a particular way in which we *are*, one way (*among others*) in which we discover, respond to, and talk about things. Science and scientific theory consist of a “knowing comportment” that objectifies things—turns things into objects—making them “eminently present” (as he puts it in *Being and Time*). Objectifying a realm of beings makes for “thematization” and a specific science. Notably, objectifying things requires that beings somehow are already disclosed and therefore also already illuminated and guided by an understanding of being. Science thus shows itself emerging from an already existing prescientific engagement with beings and disclosure of being.

Such an existential conception of science separates the essence of science from an identification with method and therefore is more attuned to the practice of science over time and across disciplines. Most natural and social sciences today rely upon generalization, calibration, induction, and aleatory reasoning that are not completely reducible to quantitative and formal discourse. By contrast, an epistemological approach to the sciences (such as we find with Meillassoux) tends to be reductive. Meillassoux’s insistence on equating science with quantitative and formal discourse flies in the face of the history of science (in which we find science practiced in different ways) and the different methods and practices we find in contemporary natural and social science.

Second, and more important, Heidegger’s ontological approach means that he starts with things themselves; ontology is first philosophy, and logic is rooted in ontology. Even in his most “transcendental” mode of thinking—the *Daseinanalytik* of *Being and Time* and other work from the 1920s—Heidegger’s concern was with being and things themselves. That is, understanding how *Dasein* responds to things was meant to reveal “being there” and thereby open up an understanding of being. And what is revealed in Heidegger’s analyses is concealment and withdrawal. Concealment and withdrawal are characteristics of things *themselves*. Things *themselves* withdraw from us even as they reveal themselves. This is the point of Heidegger’s phenomenological analyses, from the “tool-being” in *Being and Time* (GA 2, 92ff./64ff.) and the peasant shoes in Van Gogh’s painting (GA 5, 18ff./13ff.) to a Greek temple (GA 5, 27ff./41ff.) to a thing in general or nature itself (GA 7, 163ff., 59/165ff., 174). Such concealment and withdrawal indicates that things are not within our total control, either conceptually or practically. And while what we say (*logos*, *legein*, word, speech, discourse)—about things, about ourselves—discloses how they are and who we are, disclosure is *alētheia*, “unconcealment,” which needs concealment (*lēthe*) “as a reservoir upon which disclosure can, as it were draw” (GA 7, 226/71). The appropriate word acknowledges the withdrawal and concealment even as it discloses the thing.

Herein then lies the root of Heidegger’s “criticism” of science, particularly modern science and its mathematical projection of nature. That criticism notes that the objectivity of science and scientific theory is only one way in which nature shows itself. Things disclose themselves objectively, but never absolutely must disclose themselves in that way. Nonetheless, natural science (and those such as Meillassoux) strives to

overcome the diverse ways in which things show themselves in favor of *one* determination. Science thereby is unable to embrace the hidden fullness of the disclosure of nature, that is, the revealing *and concealing* of nature.¹⁴ This does not limit reason, as Meillassoux charges, but rather shows that the scientific word is not the last word on how things are. Things themselves exceed our grasp. The appropriate word—the saying of the poet or thinker—is the word that acknowledges the concealing and withdrawal of things even as it discloses them. The scientific theory forgets the concealment and withdrawal of things and does not acknowledge that concealment and withdrawal. It is in that sense that science, as Heidegger famously and provocatively said, does not think (GA 8, 4/8).

We can see that Meillassoux's criticism of post-Kantian philosophy with regard to scientific discourse—at least as applied to Heidegger—misses the mark. This is due in large part because Meillassoux, under the sway of modern philosophy and its epistemological turn, takes logic and epistemology to be first philosophy. Philosophical problems, including the possibility of scientific discourse about events prior to the existence of human beings, are framed in epistemological terms. Heidegger, however, does not give priority to epistemology but to ontology: he is concerned with the question of being. Starting from being and things themselves, Heidegger is able to give us an understanding of science as one way in which we are, one way in which we deal with things—including events prior to life on earth—that also accounts for the diversity in science and the different ways in which things disclose themselves. At the same time, by starting with being and things themselves, Heidegger is able to show us that science—including Meillassoux's ideal, the mathematization of nature—does not have the final word about being. Reality, nature, things themselves exceed our grasp and the grasp of science. The appropriate response to reality acknowledges that there is no final word, even as that appropriate response discloses reality.

NOTES

All references to Martin Heidegger's work are as follows, with German pagination first and English second:

- GA 1 *Frühe Schriften* (Frankfurt: Klostermann, 1978).
 GA 2 *Sein und Zeit* (Frankfurt: Klostermann, 1977), 244; *Being and Time*, trans. Joan Stambaugh (Albany: State University of New York Press, 1962).

- GA 5 *Holzwege* (Frankfurt: Klostermann, 1977); *Off the Beaten Track*, ed. and trans. Julian Young and Kenneth Haynes (Cambridge: Cambridge University Press, 2002).
 GA 7 *Vorträge und Aufsätze* (Frankfurt: Klostermann, 2000), 37–65 (“Science and Reflection,” trans. William Lovitt, in *The Question Concerning Technology and Other Essays* [New York: Harper and Row, 1977], 155–82), 163–87 (“The Thing,” trans. Albert Hofstadter, in *Poetry, Language, Thought* [New York: Harper and Row, 1971], 163–86), 211–34 (“Logos,” trans. David Farrell Krell and Frank Capuzzi, in *Early Greek Thinking* [New York: Harper and Row, 1975], 59–78).
 GA 8 *Was heißt Denken?* (Frankfurt: Klostermann, 2002); *What Is Called Thinking?* trans. J. Glenn Gray (New York: Harper and Row, 1968).
 GA 9 *Wegmarken* (Frankfurt: Klostermann, 1976); *Pathmarks*, ed. William McNeill (Cambridge: Cambridge University Press, 1998).
 GA 14 *Zur Sache des Denkens* (Frankfurt: Klostermann, 2007); *On Time and Being*, trans. Joan Stambaugh (New York: Harper and Row, 1972).
 GA 25 *Phänomenologische Interpretation von Kants Kritik der reinen Vernunft* (Frankfurt: Klostermann, 1977); *Phenomenological Interpretation of Kant's “Critique of Pure Reason,”* trans. Parvis Emad and Kenneth Maly (Bloomington: Indiana University Press, 1997).
 GA 26 *Metaphysische Anfangsgründe der Logik im Ausgang von Leibniz* (Frankfurt: Klostermann, 1978); *The Metaphysical Foundations of Logic*, trans. Michael Heim (Bloomington: Indiana University Press, 1984).
 GA 41 *Die Frage nach dem Ding* (Frankfurt: Klostermann, 1984); *What Is a Thing?* trans. W. B. Barton Jr. and Vera Deutsch (South Bend: Gateway, 1967).
 GA 65 *Beiträge zur Philosophie* (Frankfurt: Klostermann, 1989); *Contributions to Philosophy*, trans. Parvis Emad and Kenneth Maly (Bloomington: Indiana University Press, 1999).
 GA 79 *Bremer und Freiburger Vorträge* (Frankfurt: Klostermann, 1994); *Bremen and Freiburg Lectures*. “*Insight into That Which Is*” and “*Basic Principles of Thinking*,” trans. Andrew J. Mitchell (Bloomington: Indiana University Press, 2012).

1. All references to Quentin Meillassoux's work are as follows:

- AF *After Finitude: An Essay on the Necessity of Contingency*, trans. Ray Brassier (New York: Continuum, 2008).
 DI “Appendix: Excerpts from *L'Inexistence divine*,” trans. Graham Harman, in Graham Harman, *Quentin Meillassoux: Philosophy in the Making* (Edinburgh: Edinburgh University Press, 2011), 175–238.
 IQM “Interview with Quentin Meillassoux (August 2010),” trans. Graham Harman, in Harman, *Quentin Meillassoux*, 159–74.

2. Meillassoux's sweeping indictment lacks any awareness of the range of

Gutting, ed., *Continental Philosophy of Science* (Malden, Mass.: Blackwell, 2005); and Babette Babich, "Towards a Critical Philosophy of Science: Continental Beginnings and Bugbears, Whigs, and Waterbears," *International Studies in the Philosophy of Science* 24 (2010): 343–91.

3. Trish Glazebrook, *Heidegger's Philosophy of Science* (New York: Fordham University Press, 2000), 13 and passim, and Joseph Rouse, "Heidegger on Science and Naturalism," in Gutting, *Continental Philosophy of Science*, 123ff., argue for the centrality of the philosophy of science in Heidegger's thought. On the other hand, while not denying that Heidegger's thought is relevant to the philosophy of science, William Richardson has noted that "on the longest day he ever lived Heidegger could never be called a philosopher of science" ("Heidegger's Critique of Science," in *Heidegger on Science*, ed. Trish Glazebrook [Albany: State University of New York Press, 2012], 27), while Theodore Kisiel, "A Supratheoretical Prescientific Hermeneutics of Scientific Discovery," in Glazebrook, *Heidegger on Science*, 240ff., is especially critical of Glazebrook's displacement of the question of being with the question of science as Heidegger's central concern.

4. "Weak" correlationism, which Meillassoux associates with Kant, is the view that we cannot know the thing-in-itself though the latter remains thinkable (AF, 35). "Strong" correlationism, which Meillassoux associates with Heidegger and Wittgenstein (AF, 41), is the view that "not only is it illegitimate to claim that we can know the in-itself, but also that it is illegitimate to claim that we can at least think it" (AF, 35).

5. Ray Brassier, Iain Hamilton Grant, Graham Harman, and Quentin Meillassoux, "Speculative Realism," in *Collapse III*, ed. R. Mackay (Falmouth: Urbanomic, November 2007), 409; hereafter cited as SR.

6. Anjan Chakravartty, "Scientific Realism," in *The Stanford Encyclopedia of Philosophy* (Summer 2011 Edition), ed. Edward N. Zalta, 5–6, <http://plato.stanford.edu/archives/sum2011/entries/scientific-realism/>. However, see John Heil, "Recent Work in Realism and Anti-realism," *Philosophical Books* 30 (1989): 65–73, regarding the notoriously difficult job one has defining both realism and antirealism.

7. Meillassoux indirectly acknowledges this when he notes that "correlationism is not a metaphysics" (AF, 11) and when, in response to questions and comments from Peter Hallward at a conference on speculative realism, he acknowledges that correlationism "is not an ontology, strictly speaking" (SR, 445).

8. Regarding the "religious" character of correlationism, see AF, 43–48; DI, 230–31; and my "Fideism or Faith in Doubt? Meillassoux, Heidegger, and the End of Philosophy," *Philosophy Today*, 2013: 358–68.

9. In an interview with Graham Harman, Meillassoux acknowledges that in some ways the term *correlationism* was coined to avoid the ambiguities of—and subsequent evasions concerning—the term *idealism* (IQM, 163–64). Later in the same interview (171), he claims that, despite never ceasing to try to distinguish themselves from idealism and Berkeleyan solipsism, Heidegger et al. never

address the idealist conclusions that must be drawn from correlationism about ancestral statements. Cf. AF, 122, where Meillassoux suggests a connection between Berkeley's subjective idealism and correlationism.

10. Joseph J. Kockelmans, *Heidegger and Science* (Washington, D.C.: Center for Advanced Research in Phenomenology/University Press of America, 1985), 88–93, recognizes the difficulties of applying these terms to Heidegger. The difficulty leads to the invention of some awkward labels to try to describe Heidegger's philosophy of science. For example, Hubert Dreyfus, *Being-in-the-World: A Commentary on Heidegger's "Being and Time," Division I* (Cambridge: MIT Press, 1991), creates the label "minimal hermeneutic realist" to try to categorize Heidegger's views about nature and the objects of science. Trish Glazebrook, "Heidegger and Scientific Realism," *Continental Philosophy Review* 34 (2001): 361–401, while recognizing the unsuitability of the realism/antirealism framework when applied to Heidegger, nonetheless tries to argue for Heidegger's "robust realism," which is a "reconciliation of antirealist theses concerning projection and intelligibility with a realist commitment to the transcendent actuality of nature" (383).

11. Thus Glazebrook notes that Heidegger "never gives up the realism with which he begins" ("Heidegger and Scientific Realism," 365).

12. This point is made repeatedly by Heidegger throughout his career, with the classic presentation of the problem in *Being and Time* (GA 2, 282ff./196ff.). For a summary discussion of correctness and truth in Heidegger and how they bear on science, see Ewald Richter, "Heidegger's Theses Concerning the Question of the Foundations of the Sciences," trans. Trish Glazebrook and Christina Behme, in Glazebrook, *Heidegger on Science*, 79–82.

13. See, e.g., Heidegger's discussion of the development of scientific theory as a modification of circumspect taking care in *Being and Time* (GA 2, 472–85/326–35), his remarks about "positive" science in "Phenomenology and Theology" (GA 9, 48–50/41–42), and his discussion of laying the foundation of a science in *Phenomenological Interpretation of Kant's "Critique of Pure Reason"* (GA 25, 17–40/13–27). Cf. his "Propositions About 'Science,'" in *Contributions to Philosophy* (GA 65, 145ff./101ff.), which, though primarily about modern science, echoes and extends some of the elements of the existential conception of science.

14. GA 2, 479/331–32; GA 7, 56, 59/174, 176; Richter, "Heidegger's Theses Concerning the Question of the Foundations of the Sciences," 72.