

# Interpretation

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# Heidegger's "Metametaphysics": Heidegger on Modernity and Postmodernity

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**Abstract:** Methodologically rigorous description, analysis, and critique of postmodern phenomena presuppose a rigorous theory of postmodernity, for which the philosophy of Martin Heidegger holds great untapped promise. This essay explicates the basic content of Heidegger's "metametaphysics," since for Heidegger a "metaphysics" is the epochally prevailing projection of the meaning of being in general, and he offers a theory of Western metaphysics. I begin with Heidegger's analysis of the "regional ontologies" of the sciences in his 1927 magnum opus *Being and Time*, since the metametaphysical works of the "late middle" Heidegger in the 1930s–1940s extend this analytical framework to metaphysics as global ontology. I then explicate Heidegger's views on modern metaphysics, focusing on his analyses of modern science and the philosophy of Descartes, before turning to his theory of postmodernity, which I extract from his analyses of modern technology and the philosophy of Nietzsche.

## 1. INTRODUCTION: A THEORETICAL FRAMEWORK FOR UNDERSTANDING POSTMODERNITY

Even perennial phenomena only manifest concretely in historically particular forms. The perennial figure of the "moral skeptic," for example, manifests with distinct historical specificity in the form of Hume's "sensible knave" and in that of Thrasymachus in Plato's *Republic*. Moreover, many phenomena are historically specific in a stronger sense: phenomena in which it is historical novelty, or discontinuity rather than continuity with the historical past, which predominates. Such phenomena may receive epochal prefixes, like "medieval art," "modern science," or "postmodern literature," and the

most significant of these “epochally specific” phenomena may even become incorporated into standard names for their epochs. “Information age,” for example, obviously does not mean to imply that information did not exist in earlier epochs, but rather that this epoch is most essentially differentiated by a historically novel technologization of information along with a novel elevation of the centrality of information and information technologies to human existence.

Thus, a condition of possibility for the interpretation or understanding of any particular phenomenon of the age—a condition that therefore must have already been met, whether consciously and critically or not, if one in fact proceeds with such an interpretation—is an understanding of the age in general. Hence, for those who would critically describe, analyze, interpret, and/or critique contemporary phenomena of whatever kind, but especially those phenomena which are more rather than less epochally specific in their essential character, the proper point of departure is a proper understanding of the current historical epoch.

The historical epoch in which we live today is typically denominated “postmodernity,” which is how I will refer to it. Different speakers understand different things by this and cognate terms, so the real question is that of the *meaning* of postmodernity, clarifying which is one of the main aims of this essay. However, regardless of one’s particular understanding of this term—or of preferred alternatives, like “late modernity,”<sup>1</sup> for that matter—a rigorous interpretation of any essentially contemporary phenomenon must be grounded in a rigorous understanding of the epoch generally. This holds especially for exemplarily postmodern phenomena, such as postmodernism,<sup>2</sup> whether in philosophy, art, or politics.<sup>3</sup>

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<sup>1</sup> See, e.g., Anthony Giddens, *The Consequences of Modernity* (Stanford, CA: Stanford University Press, 1990).

<sup>2</sup> As I use the term, “postmodern(ity)” descriptively indexes mere historical location variously definable in terms of various phenomena, whether the deconstruction of tradition and the rise of “post-traditional” societies, the “anti-metaphysical” turn (Allen Porter, “Social Justice Leftism as Deconstructive Postmodernism,” Rice University Digital Scholarship Archive, 2021, <https://scholarship.rice.edu/handle/1911/110194>), “the recognition that [the Enlightenment] project is vain” (H. T. Engelhardt Jr., *Foundations of Bioethics*, 2nd ed. [New York: Oxford University Press, 1996], 23), “incredulity toward metanarratives” (Jean-François Lyotard, *The Postmodern Condition: A Report on Knowledge*, trans. Geoff Bennington and Brian Massumi [Minneapolis: University of Minnesota Press, 1984] xxiv), or the metaphysical prevailing of Heideggerian “enframing” (as explicated below). In contrast, postmodernists normatively embrace postmodernity, affirming the desirability (or even obligatoriness) of such exemplarily postmodern developments and departures and attempting to further them.

<sup>3</sup> Postmodernism in philosophy and art has long been familiar, but its definitive manifestation

I suggest the thought of Martin Heidegger provides perhaps the most illuminating and philosophically rigorous understanding of postmodernity—one which has yet to be appreciated fully by most contemporary thinkers—in the form of what I propose be henceforth called his “metametaphysics.”<sup>4</sup>

In the Heideggerian sense,<sup>5</sup> developed further below, “metaphysics” refers, roughly, to the epochally prevailing understanding of the meaning of being in general.<sup>6</sup> This is sometimes reflectively considered and avowed, but always prereflectively presupposed, as grounding understandings of the meanings of particular kinds of being. For example, a society of ancient animists who implicitly understand everything as ultimately being spirit(s) has a very different metaphysics than a society of modern materialists who project modern scientific “nature” as the meaning of being in general: for the former, *to be* in general or as such means to be some kind of *spirit* or compound of *spirits*, in particular, while for the latter, *to be* in general means to be a theoretically

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in politics is a more recent phenomenon. Today, terms like “wokeism” and “woke leftism” are the increasingly standard way to refer to a novel form of identitarian postmodernist leftism which has been hegemonic in the academic humanities and social sciences for decades, but which has become increasingly culturally hegemonic in the Anglophone West more generally since approximately 2012. See Porter, “Social Justice Leftism.”

<sup>4</sup> Note my usage of “metametaphysics” is stipulative; in particular, it is not intended to conform to the term’s prevailing academic usage, i.e., in analytic philosophy—regarding which, see David Chalmers, David Manley, and Ryan Wasserman, *Metametaphysics: New Essays on the Foundations of Ontology* (New York: Oxford University Press, 2009). Though it is compatible with the latter in interesting ways, the demarcation of these is beyond the scope of this essay, as is clarification of its relation to Hegelian “meta-ontology” or Heideggerian “metontology,” regarding which, respectively, see George Khushf, “The Meta-Ontological Option: On Taking the Existential Turn,” in *Hegel Reconsidered: Beyond Metaphysics and the Authoritarian State*, ed. H. Tristram Engelhardt Jr. and Terry Pinkard (Boston: Kluwer Academic Publishers, 1994) and Steven Crowell, “Metaphysics, Metontology, and the End of *Being and Time*,” *Philosophy and Phenomenological Research* 60, no. 2 (2000): 307–31.

<sup>5</sup> Paraphrasing Alasdair MacIntyre, the reader may well wonder “Which Heidegger, whose ‘metaphysics?’” in light of the standard periodization of the trajectory of Heidegger’s thought and the fact that there are changes in the details of his understanding of “metaphysics” across the major periods of his oeuvre. Though such details are largely beyond the scope of this essay, usages of “metaphysics” and related terms in the following will generally share the sense these terms have in the works of the “late middle” Heidegger, the Heidegger of what I propose to call the “metametaphysical period” (~1935–1949), though most of my usages would also hold of the “early middle” Heidegger of the “metaphysical decade” (~1927–1935) and some even of the “early” (pre-1928) Heidegger of *Being and Time* and *Basic Problems of Phenomenology*. Cf. Steven Crowell, “The Middle Heidegger’s Phenomenological Metaphysics,” in *Oxford Handbook of the History of Phenomenology*, ed. Dan Zahavi (New York: Oxford University Press, 2018).

<sup>6</sup> It is important to note that Heidegger’s existential phenomenology entails that the proper meaning of phrases like “the epochally prevailing metaphysics” or “the Heideggerian sense”—or “the West,” “Western metaphysics,” etc.—*ultimately* be an *issue* for each singular individuation of Dasein to decide for itself and through its “negotiations” with others (since *Mitsein*—“being-with,” intersubjectivity, or sociality—is one of the fundamental existential structures of Dasein, as unfolded in the *Daseinanalytik* of *Being and Time*).

measurable spatiotemporal magnitude in motion, in particular. In this sense of “epochal metaphysics,” then, an epochal *metametaphysics* would be a particular understanding, interpretation, or theory of an epochally prevailing metaphysics; this, in turn, would presuppose a *general* *metametaphysics* or a theory of metaphysics in general. For those studying postmodern phenomena, then, philosophical rigor demands that their analyses be grounded in a rigorous *metametaphysics*—and Heidegger provides at least the basic structure and content for both a general *metametaphysics* and an epochal *metametaphysics* of postmodernity.<sup>7</sup>

In this essay, I explicate Heideggerian *metametaphysics*, focusing on his epochal *metametaphysics* of (post)modernity.<sup>8</sup> First, I explain Heidegger’s analysis of the “regional ontologies” of the positive sciences in his 1927 magnum opus, *Being and Time*. Then, I show how Heidegger generalizes and extends this analytical framework to what is effectively a “global ontological” analysis of the metaphysics of modernity and postmodernity in later works from what I propose be termed his “*metametaphysical period*,” such as the 1938 essay “The Age of the World Picture,” the 1935/1936 lecture course “Basic Questions of Metaphysics” (published in 1962 as *The Question Concerning the Thing: On Kant’s Doctrine of the Transcendental Principles*), and the 1955 essay “The Question Concerning Technology.” I explain Heidegger’s theory of modern metaphysics by focusing on his analyses of modern science and Descartes’s philosophy, and I extract his theory of postmodern metaphysics from his analyses of Nietzsche’s philosophy and modern technology.

I explicate Heidegger’s *metametaphysics* of *modernity* in addition to that of postmodernity because, as I explain in the next section, while Heidegger understands postmodernity as an essentially new metaphysical epoch from a “short-historical” perspective, he views it as simply the latest stage of a “long modernity” of the West (stretching back to Plato) from a “long-historical” perspective. That is also why I sometimes write it as “(post)modernity.”

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<sup>7</sup> Unfortunately, arguing for the superiority over alternatives of the basis of this *metametaphysics*—namely, the existential phenomenological methodology and the “fundamental ontology” of Dasein it produced in *Being and Time* and *Basic Problems of Phenomenology*, among others—is beyond the scope of this essay.

<sup>8</sup> Explicating, much less defending, Heidegger’s general *metametaphysics*, at least beyond what is indispensable for explicating his epochal *metametaphysics* of Western modernity and postmodernity, is beyond the scope of this essay—because explaining why Heidegger thinks metaphysics is essentially historical, why history is essentially epochal, or how he sees such claims as being grounded in the “fundamental ontology” of Dasein, for example, would require substantial explication of his existential phenomenological philosophy more generally.

My goal is to provide those unfamiliar with Heideggerian philosophy—or unfamiliar with this aspect or period of it, or unfamiliar with any of these in sufficient detail—with a new and superior conceptual framework for interpreting contemporary phenomena. I consider a special merit of this approach to be that it is immunized to many or even most of the criticisms that have so often, if not always persuasively, been lodged against various forms of traditional philosophy and theory by postmodernist philosophy and “critical theory” in “the broad sense” of that term.<sup>9</sup> Indeed, I believe it even contains superior resources for critiquing such forms of postmodernist philosophy and theory in turn, though demonstrating and detailing either of these claims is beyond the scope of this essay.

## 2. FROM THE SCIENCES TO THE SPIRIT OF AN AGE

In *Being and Time*, Heidegger analyzes the hermeneutics of the positive sciences in terms of how the sciences necessarily presuppose “basic concepts” and “regional ontologies” as constitutive for the self-understanding governing their activities, and in terms of how the “projection” of these creates a kind of a priori framework or “groundplan” that determines and constrains a science’s specific modes of inquiry, interpretation, and understanding.

Each science is founded in “basic concepts” collectively constituting the “regional ontology” of that science—the understanding of being that the science axiomatically presupposes and projects in advance of scientific activity as dictating the meaning of its proper objects of study.<sup>10</sup> For example, “life” is

<sup>9</sup> “Critical Theory” in the “narrow sense” (often capitalized) refers to the neo-Marxist theory of the Frankfurt School, especially that of its first generation (including such figures as Adorno, Horkheimer, and Marcuse). Critical theory in the “broad sense” refers to a disorganized and continually proliferating multiplicity of postmodernist identitarian leftist theories that resulted from the appropriation of German Critical Theory, as well as French postmodernisms (most prominently the poststructuralism of Derrida, Deleuze, Foucault, and Lacan), by the Anglophone academic humanities and social sciences. Much of the latter goes on under novel disciplinary labels, many of which—fifty already in 2014, by one scholar’s count—consist in an identitarian term followed by “studies,” sometimes preceded by “critical” (e.g., “critical gender studies,” “critical race studies,” “whiteness studies,” “fat studies”). See Porter, “Social Justice Leftism,” 99–102; cf. Amy Allen, *The End of Progress: Decolonizing the Normative Foundations of Critical Theory* (New York: Columbia University Press, 2016), xi.

<sup>10</sup> The term “regional ontology” comes from Husserl (*Ideas for a Pure Phenomenology and Phenomenological Philosophy: First Book: General Introduction to Pure Phenomenology*, trans. Daniel Dahlstrom [Indianapolis, IN: Hackett, 2014], §9). Heidegger does not explicitly use this phrase in *Being and Time*, preferring such locutions as “those ontologies . . . which are prior to the ontical sciences and which provide their foundations” (Martin Heidegger, *Being and Time*, trans. John Macquarrie and Edward Robinson [New York: Harper & Row, 1962], 31). For an account of how, while Heidegger “does not share Husserl’s position [on regional ontologies] completely, the essence of Husserl’s position is nonetheless maintained by him,” see Joseph J. Kockelmans, *Heidegger and Science* (Washington, DC: Center for Advanced Research in Phenomenology, 1985), 102–14.

the most basic concept of biology, naming the kind of being an object must have to be a proper object of study for this science. If something appears to be a microscopic organism reacting to its environment, but upon closer investigation turns out to be merely a complex chemical process that only superficially resembles the activity of life, then it is no longer a proper object of study for biology but rather one for chemistry. This is what the “regionalization of being” refers to: the comprehensive and contrastive carving up of beings into essentially different kinds delimited by different basic concepts and admitting of accordingly different modes of proper inquiry, understanding, and categorization (e.g., the chemical is that which is essentially distinct from the merely physical, the biological, cultural, etc.).

Physics studies physical beings, chemistry studies chemical beings, biology living ones, and so on. In studying a phenomenon, a science either explicitly posits or implicitly presupposes its *true being*, or what it really and essentially *is*. The basic scientific concepts accomplishing this ontological positivization and regionalization function *axiomatically*, as meanings and organizing principles which cannot be justified or demonstrated through the explanatory, verificatory, and justificatory methods of the science since the very operation of those methods presupposes them.<sup>11</sup> The regional ontology of a science determines *in advance* of scientific activity and inquiry what something must be to be a proper object of the science, what categories are properly applicable to such beings, what modes of inquiry are appropriate for them, and what kind of knowledge can be gained about them. One can use physics experiments to determine *whether* something has mass and energy, an atomic structure, or whatever physicists say something must be in order to be “physical”—but one cannot justify why *these* should be the criteria for physicality through those same methods, which rather must presuppose this particular projection of being in order to get underway in the first place.

“The Age of the World Picture” makes this regional analysis global. Now Heidegger’s target is not the positive sciences as founded in regional positivizations of being, but the “spirit of an age” as founded in its epochal “metaphysics,” Heidegger’s name for global rather than regional ontology: “Metaphysics grounds an age . . . through a particular interpretation of beings and through a particular comprehension of truth.”<sup>12</sup> A metaphysics is the basic understanding of what it means to *truly be*—not what it means to truly

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<sup>11</sup> Cf. Kockelmans, *Heidegger and Science*, 130–31.

<sup>12</sup> Martin Heidegger, “Age of the World Picture,” in *Pathmarks*, ed. William McNeill (New York: Cambridge University Press, 1998), 57.

be *this* or *that* kind of thing, but rather what it means to truly be *as such* or *in general*—the projection of which underlies all regional projections of being (e.g., what it means to be *physical*, what it means to be *chemical*).

In that 1938 essay, Heidegger diagnoses the metaphysical essence of the modern age, modernity's prevailing understanding of being in general. He mentions several "essential phenomena of the modern age," such as "the loss of the gods" and "the art work[']s becom[ing] an object of [subjective] experience," but decides to focus on modern science, asking "In what is the essence of modern science to be found?"<sup>13</sup>

What is the "worldview" (*Weltanschauung*) or "world picture" (*Weltbild*) that distinguishes modernity from earlier epochs? Heidegger pulls a clever hermeneutic twist here: "The world picture does not change from an earlier medieval to a modern one; rather, that the world becomes picture at all is what distinguishes the essence of modernity";<sup>14</sup> "The fundamental event of modernity is the conquest of the world as picture."<sup>15</sup> As for "worldview": "As soon as the world [*Welt*] becomes picture [*Bild*] the position of man is conceived as world view [*Weltanschauung*]."<sup>16</sup>

So the essence of modernity, exemplified by its essential phenomena (modern science, technology, art, philosophy, etc.), lies in its "metaphysics," its hermeneutically basic projection of the meaning of being in general, or of "the being of beings"—the global ontology implicitly founding the age's regional ontologies. And *modern* metaphysics has something to do with the world becoming essentially a picture and humanity's essential relation to the world becoming "worldview."

Before considering the details of Heidegger's epochal metametaphysics, a brief and broad characterization of Western intellectual history consonant with the Heideggerian perspective is heuristically helpful.<sup>17</sup> In antiquity, being is conceptualized as harmoniously self-producing and self-disclosing

<sup>13</sup> Ibid., 58.

<sup>14</sup> Ibid., 68. Note that this is a claim about modernity in the "short-historical" sense.

<sup>15</sup> Ibid., 71.

<sup>16</sup> Ibid., 70.

<sup>17</sup> For variations on this "grand narrative," see Harold Alderman, "Heidegger's Critique of Science and Technology," in *Heidegger and Modern Philosophy: Critical Essays*, ed. Michael Murray (New Haven, CT: Yale University Press, 1978), 37–38; Daniel O. Dahlstrom, "Im-position: Heidegger's Analysis of the Essence of Modern Technology," in *Heidegger on Technology*, ed. Aaron James Wendland, Christopher Merwin, and Christos Hadjioannou (New York: Routledge, 2019), 40–41; and Gregory B. Smith, "Heidegger, Technology, and Postmodernity," *Social Science Journal* 28, no. 3 (1991): 372–73.

nature; with the dominance of Western Christianity in the medieval epoch, nature is reconceptualized as “created” and truth as “revealed,” namely, by a transcendent God;<sup>18</sup> and in modernity, nature is reconceptualized *as* something created, as is truth *as* something revealed,<sup>19</sup> becoming the immanent creation and revelation, respectively, of Man and/or Reason. This is as evident in the regional-ontological projection of “nature” by modern physicists as it is in Kant’s claim that the categories of the understanding “prescribe laws *a priori* to appearances, thus to nature as the sum total of all appearances.”<sup>20</sup> In modernity, both theoretical and practical justification become fundamentally a matter of a self-grounding thought or “autonomous” human reason in its operation in and application to human experience.

Heidegger identifies two essential features of modern metaphysics: it is “mathematical” and “representational.” However, he means something very specific, even unusual, by these terms, especially the first, for which he draws on the etymologically original sense of the word: “Τὰ μαθηµατα means, in Greek, that which, in his observation of beings and interaction with things, man knows in advance: the corporeality of bodies, the vegetable character of plants, the animality of animals, the humanness of human beings. Along with these, belonging to the already-known, i.e., ‘mathematical,’ are the numbers.”<sup>21</sup> “The mathematical is that evident aspect of things within which we are always already moving and according to which we experience them as things at all, and as such things.”<sup>22</sup>

In a typical hermeneutic inversion, Heidegger derives “the numerical” from “mathematicality,” rather than the reverse (rather than defining the mathematical in terms of the numerical or arithmetical).<sup>23</sup> He asserts that the only reason “mathematics” in the conventional sense has become so privileged in our ordinary-language sense of the “mathematical” is that it is the “most striking” and “best-known” manifestation of the latter, and that the

<sup>18</sup> Martin Heidegger, *The Question Concerning the Thing: On Kant’s Doctrine of the Transcendental Principles*, trans. James D. Reid and Benjamin D. Crowe (New York: Rowman & Littlefield, 2018), 74.

<sup>19</sup> “Modern metaphysics from Descartes to Kant, and the metaphysics of post-Kantian German idealism, is unthinkable without basic Christian representations” (Heidegger, *The Question Concerning the Thing*, 74).

<sup>20</sup> Immanuel Kant, *Critique of Pure Reason*, trans. Paul Guyer and Allen Wood (New York: Cambridge University Press, 1998), B163.

<sup>21</sup> Heidegger, “Age of the World Picture,” 59.

<sup>22</sup> Martin Heidegger, “Modern Science, Metaphysics, and Mathematics,” in *Basic Writings*, ed. David Farrell Krell (New York: HarperCollins, 1993), 277.

<sup>23</sup> Heidegger, “Age of the World Picture,” 59.

only reason modern science is *exemplarily* mathematical in the conventional sense is because it is *essentially* "mathematical" in this more primordial sense.<sup>24</sup>

Unless otherwise noted, I will use "mathematical(ity)" in this Greek-cum-Heideggerian sense. The "mathematical" in this sense is, epistemologically, not only *axiomatic* but also *a priori*: it is what is most certain for the subject of knowledge, the axiomatic ground of the possible intelligibility of future explorations of the world and the possible success of attempts to gain certainty about presently uncertain matters, functioning as an advance condition of possibility for any *particular* such explorations or attempts. Relatedly, it exhibits a kind of *analyticity*: "The *mathemata*, the mathematical, is that 'about' things which we really already know. [W]e do not first get it out of things, but, in a certain way, we bring it already with us."<sup>25</sup> For example, number: "What 'three' is the three chairs do not tell us, nor . . . any other three things. Rather, we can count three things only if we already know 'three.' . . . What we now take cognizance of is not drawn from any of the things. We take what we ourselves somehow already have."<sup>26</sup>

The second essential feature of modern metaphysics, its representationalism, is intimately bound up with its "mathematicality" in this sense—and like its "mathematicality," this representationalism also has ancient roots.

This is a good time to clarify that Heidegger's epochal *metametaphysics* effectively comes in two versions, "long-historical" and "short-historical."<sup>27</sup> A phenomenon's "short" history comprises everything since its explicit emergence in its essential form, whereas its "long" history extends to include essential influences, essential precursors and nascent forms, and so on. Heidegger's epochal *metametaphysics* effectively posits a "long modernity" of the West with long-historical origins in Plato and short-historical origins in Descartes.

<sup>24</sup> Ibid.

<sup>25</sup> Heidegger, "Modern Science, Metaphysics, and Mathematics," 276.

<sup>26</sup> Ibid.

<sup>27</sup> This is my own stipulative terminology, not Heidegger's. The terminology itself obviously raises a number of interesting questions and potential problems—e.g., of the criteria for where/how to draw the boundaries between a phenomenon's long and short histories, the precise methodological significance of such line drawing (e.g., capturing essential historical truths, being a mere heuristic)—consideration of which is beyond the scope of this essay, at least beyond the blanket Heideggerian response that these must all *ultimately* be issues for each individuation of Dasein to ongoingly decide for itself as part of its essential freedom over and responsibility for its own being.

Only a brief explication of how Plato sowed the seeds that would reach an essential fruition with Descartes is possible here. The key locus for this discussion is the 1940 text “Plato’s Doctrine of Truth,” in which Heidegger identifies “unhiddenness” (ἀλήθεια) as the primordial Greek conception of truth, in line with my earlier characterization of the ancient view of being/nature (φύσις) as self-producing and self-disclosing or “self-showing.”<sup>28</sup> However, in the course of his explication of Platonic *paideia* and the cave allegory, Heidegger asserts that already in Plato we find an “ambiguity”<sup>29</sup> in this conception of truth, one which would determine the subsequent “erring”<sup>30</sup> of Western metaphysics with its culminations first in Cartesian modernism and then in Nietzschean postmodernism.

Already in Plato, “in place of unhiddenness another essence of truth pushes to the fore,”<sup>31</sup> and this is truth as “correctness,” in the sense of “the correct vision” or “correctness of the gaze” of the subject apprehending what is unhidden thanks to the latter’s self-disclosure: “Truth becomes ὀρθότης, the correctness of apprehending and asserting.”<sup>32</sup> This is due to Plato’s “idealism,” as it were—his conception of ideas and the role these play in his metaphysics and epistemology. The reason the Platonic “idea” (ιδέα) is often called “form” (εἶδος) is that “the ‘idea’ is the visible form that offers a view of what is present”<sup>33</sup> in its “self-showing of [its] whatness.”<sup>34</sup> “That is why for Plato the proper essence of being consists in whatness . . . *quidditas*. . . . What the idea, in its shining forth, brings into view and thereby lets us see is—for the gaze focused on that idea—the unhidden of that as which the idea appears.”<sup>35</sup>

On the Platonic view, to perceive a tree that is present to my gaze *as a tree*, I must rationally know it to be a particular “sensuous” instantiation of a universal *idea* (the “Platonic form” of the tree). That is, to have *knowledge* of *what*

<sup>28</sup> Martin Heidegger, “Plato’s Doctrine of Truth,” in *Pathmarks*, 170.

<sup>29</sup> *Ibid.*, 177.

<sup>30</sup> Heidegger, “On the Essence of Truth,” 150.

<sup>31</sup> Heidegger, “Plato’s Doctrine of Truth,” 173.

<sup>32</sup> *Ibid.*, 176–77.

<sup>33</sup> *Ibid.*, 172.

<sup>34</sup> *Ibid.*, 170.

<sup>35</sup> *Ibid.*, 173. Note how “shining forth” (*erscheinen*) conveys the directional sense of metaphysical “projection.” Emmanuel Levinas, greatly influenced by Heidegger, would famously make much of the “violence” of this projection, which he characterized as illumination or intelligibilization imperialistically imposed upon “the Other” from the outside—namely, by “the Same” (or “Ego”) through Procrustean conceptualization and perception—in his 1961 *Totality and Infinity*.

it is by seeing it, my perceptual apprehension of it must be mediated by rational cognition of a concept. This concept will specify the essential features or properties required for something to be this kind of thing, to have this kind of "whatness" or *quidditas*. Hence, any assertions or judgments I make about the thing, as the kind of thing it is, must conform to or accord with the idea of the thing, if they are to be *true*. Thus, the ontological locus of truth is subtly shifted—from the unhiddenness of *the thing*<sup>36</sup> in its self-showing to the *idea* of the thing and to the *conformity* of the subject's apprehension of the thing with the idea: "As unhiddenness, truth is still a fundamental trait of beings themselves. But as the correctness of the 'gaze,' it becomes a characteristic of human comportment toward beings."<sup>37</sup> Unhiddenness becomes subordinated to correctness, from now on tending to be "considered simply in terms of how it makes whatever appears be accessible in its visible form (εἶδος) and in terms of how it makes this visible form, as that which shows itself (ιδέα), be visible."<sup>38</sup>

Not only does Platonic "idealism" exhibit a shift of the locus of truth toward the subject and its representations of beings, but Platonic "rationalism" is also *mathematical* in the Heideggerian sense—for in Platonic philosophy the "unhidden is grasped *antecedently* and by itself as that which is apprehended in apprehending the ιδέα, as that which is known (γινωσκόμενον) in the act of knowing (γινώσκειν)."<sup>39</sup> That is, I have to *already* have the idea, with its list of essential properties for the ontological genus it determines, in order to know that the thing in front of me, in virtue of conforming to that idea, is an instance of it—i.e., to know *what* kind of thing this thing *is*, and hence to be able to correctly perceive it *as* that.

Hence, we can already find in Plato the seeds of a metaphysics that conceptualizes being as presence for representationally mediated apprehension and verification by a "mathematically" rational subject. From the "ambiguity" in Plato, in which "truth still is, at one and the same time, unhiddenness and correctness, although unhiddenness already stands under the yoke of the ιδέα,"<sup>40</sup> the subsequent "erring" of Western metaphysics in its "forgetting

<sup>36</sup> "To the things themselves!," a play on (and against) Kant's "thing-in-itself," is the semiofficial slogan of Husserlian phenomenology.

<sup>37</sup> Heidegger, "Plato's Doctrine of Truth," 177.

<sup>38</sup> *Ibid.*, 172–73.

<sup>39</sup> *Ibid.*, 173 (my emphasis).

<sup>40</sup> *Ibid.*, 178.

of the question of being<sup>41</sup> will primarily develop the “orthotic” conception of truth to the exclusion of the “aletheiac,” increasingly understanding truth as a feature or function of subjective representation.<sup>42</sup> This is exemplified by the philosophy of Descartes, the “short-historical” inaugurator of modernity.

### 3. DESCARTES AND MODERN SCIENCE

Descartes was, of course, a foundational figure not only for modern philosophy but for modern mathematics. Indeed, it is Descartes more than any other who ushers in the modern age, the age of the world-picture, because he inaugurates the age of man as “subject” in the modern sense, and “the interweaving of these two processes—that the world becomes picture and man the subject— . . . is decisive for the essence of modernity.”<sup>43</sup> The locus classicus of this Cartesian accomplishment is the passage in the *Meditations on First Philosophy* containing the *cogito ergo sum*, colloquially known as “the Cogito.”

Heidegger begins his consideration of Descartes in the 1935 text with a sketch of “the usual image of Descartes and his philosophy,” which he derides as “at best . . . only a bad novel.”<sup>44</sup> He then offers his own reading of Descartes and the Cogito—a quite original and compelling one grounded in Heidegger’s understanding of the “mathematical.”<sup>45</sup>

Descartes lived in a revolutionary time in which mathematics “had already been emerging more and more as the foundation of thought and was pressing toward clarity,”<sup>46</sup> and he “substantially participate[d] in” this era’s “work of reflection upon the fundamental meaning of the mathematical.”<sup>47</sup> In terms of the Heideggerian conception of science and scientific progress elaborated above, but with some Kuhnian terminology mixed in: Descartes

<sup>41</sup> Cf. Heidegger, *Being and Time*, 21.

<sup>42</sup> Cf. Iain Thompson, “Heidegger on Ontological Education, or How We Become What We Are,” in *Heidegger, Education, and Modernity*, ed. Michael A. Peters (Lanham, MD: Rowman & Littlefield, 2002), 135.

<sup>43</sup> Heidegger, “Age of the World Picture,” 70.

<sup>44</sup> Heidegger, “Modern Science, Metaphysics, and Mathematics,” 297–98.

<sup>45</sup> In what follows, I seek only to explicate, not evaluate or criticize, “Heidegger’s Descartes.” For a critical analysis of Heidegger’s reading, claiming that “in a sense, Heidegger tries to make Descartes more ‘modern’ than he really is,” see David Kolb, *The Critique of Pure Modernity: Hegel, Heidegger, and After* (Chicago: University of Chicago Press, 1986), 41.

<sup>46</sup> Heidegger, “Modern Science, Metaphysics, and Mathematics,” 298.

<sup>47</sup> *Ibid.*, 299.

lived in a time of "revolutionary science" rather than "normal science" in mathematics, in which the mathematical "paradigm" was poised to shift, and hence in which the basic concepts of the science were undergoing fundamental rethinking.

Heidegger contends that the breakthrough of modern philosophy with the Cogito was driven by Descartes the mathematician, or Descartes as a "mathematical" philosopher, as opposed to the "usual image" of Descartes, portraying him as a philosophical subjectivist and skeptic: "There is nothing of skepticism here, nothing of the I-viewpoint and subjectivity—but just the contrary."<sup>48</sup> What Descartes seeks is to realize the historic promise of mathematics to become the absolutely certain foundation of all knowledge; he participates in the historically emergent "will" of the "mathematical" to "ground itself in the sense of its own inner requirements" and "to explicate itself as the standard of *all* thought and to establish the rules which thereby arise."<sup>49</sup>

We commonly think of modern science—and, more generally, of the modern age, the age of the Enlightenment, and so on—in this way: the epoch defined by the emergence and development of the "scientific spirit" and worldview. The age when the new science cast off the old authorities on its way to supreme rule over human inquiry. But Heidegger wants to illuminate the essence of modern science and modernity more generally *through* this notion of the "mathematical," which he sees as a more primordial phenomenon stretching back to antiquity and underlying modern science: "modern natural science, modern mathematics, and modern metaphysics sprang from the same root of the mathematical in the wider sense."<sup>50</sup> On this view, even conventionally quintessential features of modernity like the "detachment from revelation and the rejection of tradition" are "only the negative consequences of the mathematical projection of what is."<sup>51</sup>

Heidegger's Descartes was no skeptic about reality or pessimist about humanity's ability to know true reality—on the contrary, he was an enthusiastic optimist about mathematics and its promise to ground and deliver knowledge about reality or true being. In the *Meditations*, he tried to forge a specifically modern, scientific philosophy by forging a specifically

<sup>48</sup> Ibid., 298.

<sup>49</sup> Ibid., 299; cf. Kockelmans, *Heidegger and Science*, 182.

<sup>50</sup> Heidegger, "Modern Science, Metaphysics, and Mathematics," 296.

<sup>51</sup> Kockelmans, *Heidegger and Science*, 180.

“mathematical” philosophy. And “to the essence of the mathematical as a projection belongs the axiomatic, the beginning of basic principles upon which everything further is based in insightful order. If mathematics, in the sense of a *mathesis universalis*, is to ground and form the whole of knowledge, then it requires the formulation of special axioms.”<sup>52</sup>

Thus, it is the hopeful quest for a “mathematically” axiomatic foundation for knowledge, seemingly realizable for the first time in history, that drives Descartes to doubt—not an unhappy spirit driven to confirm a pessimistic suspicion about the potential foundationlessness of human knowledge. Descartes was not the Wachowskis; he was animated by an essentially modern spirit, not a postmodern one.

What does Descartes discover in his quest for a “mathematically certain” epistemological axiom? That the true being of all *representations* can be doubted but the true being—i.e., *certain presence*—of their *representing* cannot. The true being of an objective presence could diverge from its apparent being as subjectively re-presented in the mind, so that the validity of the representation relative to the represented presence can be doubted, but the true being of *this representing itself* cannot be doubted because it is immediately, fully present in the subject’s mind.

Consider the brown desk in front of me: I can doubt the reality or true being of the apparent features of the desk (e.g., its brownness), of the desk itself, even of the entire world in which the desk appears. What I *cannot* doubt, as I am presently experiencing it in its entirety, is that the desk *appears* to be brown to me, that the desk *seems* to really exist in front of me, and that the world of the desk is given in my conscious experience *as it is*. What is indubitably *present* in all experience of reality is phenomenal experience itself, a cognitive activity of subjective representing—of “thinking” in the very broad sense in which Descartes uses this term in the *Meditations*.

How does this deliver the “mathematically” axiomatic foundation for all knowledge? Required is an axiom, a proposition “absolutely first, intuitively evident in and of [itself], i.e., absolutely certain.”<sup>53</sup> This entails that the proposition give its own object, not presuppose a preexisting one taken from elsewhere. This is the problem of grounding: an *absolutely* basic axiom must have its foundation in itself, otherwise it is not absolutely but only

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<sup>52</sup> Heidegger, “Modern Science, Metaphysics, and Mathematics,” 301.

<sup>53</sup> *Ibid.*

*relatively* basic. The Cogito is precisely this self-referentially self-grounding proposition. The proposition of the Cogito (*cogito ergo sum*, or as Heidegger prefers to write it, so that there is one word per substantive conceptual term: *cogito—sum*) is the absolutely certain self-positing which alone can serve as foundation for all other possibly valid positing:

If anything is given [in the Cogito] at all, it is only the *proposition* in general *as such*, i.e., the positing, the position, in the sense of a thinking that asserts. The positing, the proposition, has only itself as that which can be posited. Only where thinking thinks itself is it absolutely mathematical, i.e., a taking cognizance of that which we already have. . . . In the essence of positing lies the proposition: I posit. That is a proposition which does not depend upon something given beforehand, but only gives to itself what lies within it. In it lies "I posit": I am the one who posits and thinks. This proposition has the peculiarity of first positing that about which it makes an assertion, the *subjectum*.<sup>54</sup>

The "I posit" is a priori, analytically, and axiomatically immanent in any cognitive positing whatsoever, whatever the latter's particular modality (e.g., perception, imagination, conception) and content. The validity of any other posit is intrinsically dubitable, but the validity of *this* posit—the posit *of* my positing or *that* I am positing—is intrinsically *indubitable* because intuitively self-evident. It is "absolute" in the sense of being "all there, all on the surface": there is no other thing or hidden depth *in relation to which* the posit could prove false because it refers solely to itself, like a closed circle. Descartes says when someone thinks the Cogito, "he does not deduce existence from thought by means of a syllogism, but recognizes it as something self-evident by a simple intuition of the mind."<sup>55</sup>

Importantly, it is not just the bare "I" that is made the "mathematically" axiomatic foundation for all possibly valid human inquiry and knowledge in the Cogito, nor even the "I" as mere subject of representation. It is the "I" of representation *and reason*. The modern "I" is most essentially *representer and reasoner*, with "reason" understood as "mathematical" reason. Heidegger illustrates this by arguing that the principle of noncontradiction is "co-positing as equally valid" along with the "I-principle" in the Cogito,

<sup>54</sup> Ibid., 302.

<sup>55</sup> René Descartes, *Objections and Replies*, in *The Philosophical Writings of Descartes*, vol. 2, trans. John Cottingham, Robert Stoothoff, and Dugald Murdoch (New York: Cambridge University Press, 1984), 100.

that is, as “mathematically” axiomatic foundational principles for all human knowledge.<sup>56</sup>

Heidegger’s point is that the Cogito, as “mathematically” axiomatic first principle and proposition, immanently grounds not only the “ontological principle” of the true being of the *ego* of the *cogito* (the “I-principle”), but also the fundamental “normative principle” of reasoning (the principle of noncontradiction).

First, the Cogito grounds the posit of the true being of the “I,” the *ego* of the *cogito* (the representing subject), because it exhibits this as what Husserl would call an “absolute presence” (it is “all there on the surface,” with nothing in relation to which it could be false). While I am thinking the Cogito, it is indubitable that *I am* experiencing this—and therefore also that I am, *simpliciter* (at least as long as I am experiencing). More generally, I am implicitly “thinking the Cogito” whenever I engage in thought or mental positing of whatever kind and with whatever content.<sup>57</sup> My phenomenal experiencing is immanently present for as long as it is ongoing, whether I consciously reflect on this or not. To determine the true being of an *appearance*, I need do nothing but experience it, for it is “auto-verifying,” so to speak. It is fully or absolutely present in its being (“all there on the surface”) in my experiencing of it, for it *is* nothing more than (a part of) my experience.

Now, a worldly phenomenon is typically not *only* my experiential representation of it;<sup>58</sup> there are other subjects besides me, for one, and most people assume there is more to reality than subjective experience, for another. And there is thus “room” between my representation of the being of the object and the being of the object in other senses (e.g., “in itself” or in the experience of other subjects) for the two to diverge. Thus, there is room for my representation of the being of the desk to be “false” if it contradicts the *true* being of the desk, however the latter ought to be determined (by physical structures discovered by science, by the intersubjective perceptual consensus of my community, etc.).

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<sup>56</sup> Heidegger, “Modern Science, Metaphysics, and Mathematics,” 305. In the section immediately following this—for “Modern Science, Metaphysics, and Mathematics” is an excerpt from *The Question Concerning the Thing*—Heidegger goes even further: “With Leibniz there subsequently emerged the principle of sufficient reason [*Satz vom Grund*], which is also already co-positd in the essence of a proposition as a principle” (Heidegger, *The Question Concerning the Thing*, 73).

<sup>57</sup> Cf. Kolb, *Critique of Pure Modernity*, 141.

<sup>58</sup> Cf. *ibid.*, 127.

But there is no such "room" between the representation and itself, or between the representing "I" and its representations/representings. Qua representations, and *solely* qua representations, the objects of my experience are *absolutely* present to me—moreover, *just as much* as the object that *I myself* am in the self-reflective cognition of the Cogito.<sup>59</sup> The Cogito merely makes this universal feature of experience, the *immanence of phenomenality*, explicit. By taking itself (the "I think" or "I posit") as the object of its thought or positing, the Cogito renders thought *completely* phenomenally immanent in its being. Most cognition is not self-reflexive in this way, but all cognition is *potentially* self-reflexive in this way (e.g., going from simply perceiving x to explicitly thinking "I am perceiving x"). In all my experience, part of it is "mathematical"—the part that is me and that I bring to the table as a mental subject; it is just that in my experience of the Cogito, *all* of it is "mathematical" (the "I posit" is not just subject but also object).

Second, the Cogito immanently contains or implies the principle of non-contradiction in the same way, through the sheer form of its proposition: every "it is the case that X is Y" implies "and it is not the case that Y is not X." The very integrity of the assertion as an assertion implies the principle of noncontradiction for its meaning, and would have no determinate sense if it did not—every "X is Y" would immediately imply all variations on the assertion, from "X is not Y" to "Y is not X" to "Y is Z rather than X." It would be like *saying* "the sky is blue" but *meaning* that the sky could be any color or no color (that this is paradoxical is precisely the point: if "is blue" isn't taken to rule out contradictory predications, then its predication has no determinate sense).

This is why Heidegger gives Descartes so much credit for inaugurating modernity. More than any other, he effects the "paradigm shift" from a medieval outlook on reality to a modern one, in which *to be* in general most essentially means to be an object of representation for a self-consciously representing, "mathematically" rational human subject. Heidegger illustrates this vis-à-vis the fascinating reversal of meaning that the terms "subject" and "object" underwent around this time, insisting this is "no mere affair of usage" but rather indicates "a radical change" of what he calls "Dasein,"

<sup>59</sup> Cf. René Descartes, *Meditations on First Philosophy, with Selections from the Objections and Replies*, trans. and ed. John Cottingham (New York: Cambridge University Press), 26, and René Descartes, *Principles of Philosophy*, in *The Philosophical Writings of Descartes*, vol. 1, trans. John Cottingham, Robert Stoothoff, and Dugald Murdoch (New York: Cambridge University Press, 1985), 195.

or human being-in-the-world, “on the basis of the predominance of the *mathematical*.”<sup>60</sup>

Prior to Descartes, any independent substance or “thing at hand for itself” was indifferently called a “subject,” while “object” (*objectum*) meant “what one cast before oneself in mere fantasy,” such as an imagined “golden mountain.”<sup>61</sup> What today we would call “objects” were called “subjects,” and what today we would consider the most “subjective”—a representation without real referent—was called “object.” With Descartes, “the ‘I’ becomes the special subject, that with regard to which all the remaining things first determine themselves as such”: “Because—mathematically—they first receive their thingness only through the founding relation to the highest principle and its ‘subject’ (I), they are *essentially* such as stand as something else in relation to the ‘subject,’ which lie over against it as *objectum*”—in short, “things themselves” now “become ‘objects.’”<sup>62</sup>

How influential the Cartesian worldview was for later modern philosophy is clear from Kant. From the role of “transcendental apperception”<sup>63</sup> as the ultimate transcendental condition in the architectonic of the *Critique of Pure Reason*<sup>64</sup> to the way Kant restricts all possible human knowledge to knowledge of the phenomenal, it is evident that Kant’s project is essentially a development of the Cartesian one. By the mid-1800s, this worldview had become so entrenched that Schopenhauer could open the second volume of his magnum opus, aptly titled *The World as Will and Representation*, by claiming that “‘The world is my representation’ is, like the axioms of Euclid, a proposition which everyone must recognize as true as soon as he understands it.”<sup>65</sup> The Cartesian-cum-Kantian “mathematical” reorientation of the relation between man and world had itself become “mathematical” for the new age—i.e., axiomatically a priori, analytically self-evident, and indubitable.

<sup>60</sup> Heidegger, “Modern Science, Metaphysics, and Mathematics,” 303.

<sup>61</sup> Ibid.

<sup>62</sup> Ibid. (my emphasis).

<sup>63</sup> “Transcendental apperception” is essentially Kant’s name for the “Kantian Cogito,” as it were, according to which “the **I think** must **be able** to accompany all my representations” (Kant, *Critique of Pure Reason*, B132).

<sup>64</sup> Kant, *Critique of Pure Reason*, B132–38.

<sup>65</sup> Arthur Schopenhauer, *The World as Will and Representation*, trans. E. F. J. Payne (New York: Dover, 1958), 2:3.

The human in its very essence became the creative, knowing, and controlling subject of the world as a rationally ordered system of representational objects.<sup>66</sup>

This is as evident in modern science as it is in modern philosophy, modern physics' regional-ontological projection of "nature" being exemplary. If "nature" names the region of being studied by modern physics, it does not mean what this term meant in an ancient or medieval context. In modernity, "the scientist's 'nature' is in fact, Heidegger says, a human construction."<sup>67</sup> Modern scientific "nature" is the world as a particular kind of picture, a particular system of changing representations governed by laws that can be known with certainty. As a knowable system, it is also controllable. The modern scientist learns about "nature" and how to control it through experiment, but scientific experiment works only by axiomatically *presupposing* the projection of "nature" as a lawful system of causally related "spatiotemporal magnitudes in motion."<sup>68</sup>

Heidegger characterizes modern scientific experiment as a "test to get information concerning the behavior of things through a definite ordering of things and events" but notes that experiment in this sense "was also already familiar in ancient times and in the Middle Ages." What distinguishes the *modern scientific* experiment from epochal predecessors must concern "not the experiment as such in the wide sense of testing through observation but the *manner* of setting up the test and the intent with which it is undertaken and in which it is grounded."<sup>69</sup> By "manner of experimentation" he means, roughly, "the kind of conceptual determination of the facts and way of applying concepts, i.e., . . . the kind of preconception about things"<sup>70</sup> found in modern metaphysics as it manifests in the regional ontologies of the modern sciences: "the fundamental characteristic of modern science . . . is the manner of working with the things and the metaphysical projection of the thingness of the things."<sup>71</sup>

<sup>66</sup> Cf. William Lovitt, introduction to *The Question Concerning Technology and Other Essays*, by Martin Heidegger, trans. William Lovitt (New York: Harper & Row, 1977), xxv-xxvi.

<sup>67</sup> *Ibid.*, xxvi.

<sup>68</sup> Gregory B. Smith, *Nietzsche, Heidegger, and the Transition to Postmodernity* (Chicago: University of Chicago Press, 1996), 236.

<sup>69</sup> Heidegger, "Modern Science, Metaphysics, and Mathematics," 272 (my emphasis).

<sup>70</sup> *Ibid.*

<sup>71</sup> *Ibid.*, 273.

As the modern scientific worldview became increasingly predominant, the age's metaphysics became increasingly scientific: "being" in general increasingly meant "being" in the regional-ontological sense of modern physics, in which to be is to be an object of "nature." This was already the case for Kant, whose "answer to the question concerning the essence of the thing" is not only that "the thing is the object of possible experience" but also that it is "a thing of nature" in the Newtonian sense.<sup>72</sup> Indeed, Kant tried to ground the latter sense of "object" through the former.

Heidegger's analyses of both the theoretical and practical aspects of modern science are substantial in their own right, but he thought the metaphysical significance of modern science was most penetratingly disclosed through consideration of modern technology. Moreover, it was in this context that he offered some of his most sustained and systematic thoughts on the current epoch, of postmodernity. Hence, I now turn from modern science to (post) modern technology—focusing on the 1955 essay "The Question Concerning Technology," perhaps Heidegger's most widely read and influential work after *Being and Time*—and from the philosophy of Descartes, the short-historical inaugurator of intellectual modernity, to that of Nietzsche, the short-historical inaugurator of intellectual postmodernity.

#### 4. (POST)MODERNITY AND POSTHUMAN TECHNOLOGY

The central question of the 1955 essay concerns the "essence of modern technology,"<sup>73</sup> and for Heidegger that "lies in" and "shows itself in" what he calls *Ge-stell*, typically translated as "enframing."<sup>74</sup> Explaining what Heidegger means by this term—as well as by the text's other key term, *Bestand*, typically translated as "resource," "standing reserve," or "stock"—will clarify how he thinks the metaphysics of modernity manifests in modern technology. To anticipate, *Ge-stell* names the metaphysical projection of being prevailing in modern technology, and *Bestand* names the kind of being that beings have when "enframed."

<sup>72</sup> Heidegger, *The Question Concerning the Thing*, 89; cf. Heidegger, *Being and Time*, 31.

<sup>73</sup> Martin Heidegger, "The Question Concerning Technology," in *The Question Concerning Technology and Other Essays*, 23.

<sup>74</sup> *Ibid.* For a survey of the most prominent translations of this term, considered by some "untranslatable"—e.g., Michel Haar, "'The End of Metaphysics' and 'A New Beginning,'" in *Heidegger, Authenticity, and Modernity: Essays in Honor of Hubert L. Dreyfus*, ed. Mark A. Wrathall and Jeff Malpas (Cambridge, MA: MIT Press, 2000), 1:158—see Kolb, *Critique of Pure Modernity*, 145.

However, we now encounter a terminological peculiarity. Heidegger speaks of "modern technology" as he does "modern science" and "modern philosophy," and he thinks that modern technology exhibits the same essence as the other essential phenomena of modernity. He even argues that *the essence* of modern technology is *older* than modern physics—though "chronologically speaking, modern physical science begins in the seventeenth century [whereas] machine-power technology develops only in the second half of the eighteenth century"—characterizing modern physics as "prepar[ing] the way" for and being "the herald of" *Ge-stell*.<sup>75</sup> Hence, we should expect *Ge-stell* to mean something like the metaphysical projection of the world as picture and *Bestand* something like object of representation.

Yet the essay primarily takes aim at *modern* conceptions of technology—moreover, "modern" in roughly the Heideggerian sense (of the world as picture with man as subject). Heidegger criticizes two aspects of this conventional conception of technology, namely, as "a means and a human activity."<sup>76</sup> He emphasizes that *Ge-stell* is different from the metaphysical projection of the world as picture with man for subject, and that *Bestand* is different from the being of an object in the world picture: "Whatever stands by in the sense of standing-reserve [*Bestand*] no longer stands over against us as object."<sup>77</sup> As Crowell puts it, "Enframing is not representing," and "under the sway of technology as the truth of contemporary experience, the 'modern' apprehension of the world as 'view,' as 'object for a subject,' is itself superseded by what we might call the post-modern condition of taking all that is to be 'on reserve' for infinite manipulations. . . . And with the disappearance of the object, the 'subject' too disappears."<sup>78</sup>

This is the locus of Heidegger's implicit theory of postmodernity. On one hand—from a short-historical perspective—the postmodern epoch is defined by the prevailing of the metaphysics of enframing, which both develops out of and replaces the formerly prevailing "world-picture" metaphysics of modernity. On the other hand—from a long-historical perspective—this epoch is

<sup>75</sup> Heidegger, "The Question Concerning Technology," 22. Cf. Mark Blitz, "Understanding Heidegger on Technology," *New Atlantis* 41, no. 1 (Winter 2014): 71–74; Albert Borgmann, "Technology," in *A Companion to Heidegger*, ed. Hubert L. Dreyfus and Mark A. Wrathall (Malden, MA: Blackwell, 2005), 426; and Kolb, *Critique of Pure Modernity*, 144.

<sup>76</sup> Heidegger, "The Question Concerning Technology," 5.

<sup>77</sup> *Ibid.*, 17.

<sup>78</sup> Steven Crowell, "Text and Technology," *Man and World* 23, no. 4 (1990): 427. Cf. Smith, "Heidegger, Technology and Postmodernity," 376, and Michael E. Zimmerman, "The End of Authentic Selfhood in the Postmodern Age?," in *Heidegger, Authenticity, and Modernity*, vol. 1.

merely the latest stage of the West's "long modernity," in which certain preexisting essential tendencies of a "mathematically" rational, representationalist will to power find essentially new, more radical realization.

In terms of long-historical Western metaphysics, then, postmodernity would not be *post*-metaphysical—all talk of the "end of history," "end of philosophy," and "end of metaphysics" notwithstanding—but rather "the last stage of metaphysics."<sup>79</sup> This short-historical epoch is the "beginning of the end" of the long-historical epoch of Western metaphysics: either because enframing will be the final form assumed by the human spirit in its existential-historical development or "destining"—the "closure" of metaphysics, the "end of history" in a roughly if perversely Hegelian sense—or because, in order to transcend the metaphysics of enframing, a sufficiently radical departure from the metaphysics of the "long modernity" will be required. That is, if "metaphysics" has always essentially meant "Western metaphysics since Plato," overcoming *this* would require "going back to before Plato," before the entire path of "erring" he set Western history on, and hence the "end" of "metaphysics" in *this* sense.

That is why Heidegger calls Nietzsche the "last metaphysician," and since a brief explication of (Heidegger on) Nietzsche's philosophy will help set the stage for the more involved discussion of enframing to follow, I turn now to "Nietzsche's Word: 'God is Dead,'"<sup>80</sup> in which Heidegger analyzes Nietzsche's exemplarily (post)modern philosophy of the "will to power" in a way that bears significant parallels to his treatment of Descartes.

Heidegger's explication of Nietzsche in this work mirrors his explication of Descartes in the 1935 essay in at least two salient ways. First, he sets up a conventional view of Nietzsche and his philosophy, as he did with the "usual image" of Descartes and his philosophy, only to knock it down in favor of something like its opposite. Just as the Descartes of the Cogito was no skeptical, pessimistic, and subjectivist thinker but rather an enthusiastic optimist about the promise of "mathematical" reason, so Nietzsche's will to power is

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<sup>79</sup> Martin Heidegger, *The End of Philosophy*, trans. Joan Stambaugh (New York: Harper & Row, 1973), 86.

<sup>80</sup> The contents of this text "are based on the Nietzsche lectures delivered over five semesters between 1936 and 1940 at the University of Freiburg" (Julian Young and Kenneth Haynes, "List of Sources," in *Off the Beaten Track*, by Martin Heidegger, trans. and ed. Julian Young and Kenneth Haynes [New York: Cambridge University Press, 2002], 285). In what follows, my purpose is only to provide a basic explication of "Heidegger's Nietzsche"; for more critical evaluations, see, e.g., Haar, "'The End of Metaphysics' and 'A New Beginning,'" and Hans Sluga, "Heidegger's Nietzsche," in Dreyfus and Wrathall, *A Companion to Heidegger*.

not "a striving for something that is not yet a possession, [which therefore] originates from a feeling of lack,"<sup>81</sup> but rather something superabundant, "overflowing"—and self-transcending for *that* reason, rather than from any negativity, lack, or need. "Will strives for what it wills not just as for something that it does not yet have. Will already has what it wills. For will wills its willing. Its will is what it has willed. Will wills itself. It exceeds itself. In this way will as will wills above and beyond itself."<sup>82</sup> Call this the "ontological principle" of the "Nietzschean Cogito" (as self-willing will), parallel to the "I-principle" of the Cartesian Cogito (as self-thinking thought).

Second, Heidegger derives a fundamental *normative* principle from the will to power, just as he derives the fundamental normative principle of rationality from the Cartesian Cogito. For the Nietzschean Cogito, it is the principle of increasing power, or of the self-increasing and self-transcending of the will to power: "Power is power only when and only for as long as it is an increase in power and commands for itself 'more power.' . . . Part of the essence of power is the overpowering of itself."<sup>83</sup> The will wills its own "preservation-increase" and the *conditions* of its own "preservation-increase"; thus "values" become "the conditions, posited by the will to power itself, of the will to power itself."<sup>84</sup>

Nietzsche reduces all beings to perspectival "values" posited by the will to power in the same way that Descartes reduced them to "objects" posited by a knowing subject. The signature difference is that the human is not the privileged subject of the will to power, the way it was the privileged subject of rational, "mathematical" thought for Descartes. For Nietzsche, "man is something that shall be overcome";<sup>85</sup> "man is a rope, tied between beast and overman" and "what is great in man is that he is a bridge and not an end."<sup>86</sup>

Moreover, if the will to power is still "mathematical" and even "rational"—Heidegger says "it is the unconditional rule of calculating reason which belongs to the will to power, and not the fog and confusion of an opaque chaos

<sup>81</sup> Martin Heidegger, "Nietzsche's Word: 'God is Dead,'" in *Off the Beaten Track*, 174.

<sup>82</sup> *Ibid.*, 175.

<sup>83</sup> *Ibid.*

<sup>84</sup> *Ibid.*, 173; cf. Alfred Denker, *Historical Dictionary of Heidegger's Philosophy* (Lanham, MD: Scarecrow, 2000), 224–25.

<sup>85</sup> Friedrich Nietzsche, *Thus Spoke Zarathustra: A Book for All and None*, trans. Walter Kaufmann (New York: Penguin, 1954), 12.

<sup>86</sup> *Ibid.*, 14–15.

of life”<sup>87</sup>—its “rationality” is very different from that of the modern human subject of thought posited by Descartes. “Nietzsche eliminates the agreement of knowledge with things and the real to replace it with an agreement with *the growth of power*.”<sup>88</sup> The rationality of the self-willing will to power, as founded in the principle of preservation-increase, is essentially orthogonal to that of the self-thinking Cartesian “I” as fundamentally determined by the principle of representational noncontradiction—as is its telos of preserving and increasing power vis-à-vis knowing truth as the telos of the Cartesian subject’s “will to truth.” Indeed, the will to power’s normative principle may entail that humans will what, in the discursive register of modern reason, would be *lies, illusions, or errors*: “Truth is the kind of error without which a certain species of life could not live.”<sup>89</sup> In an important sense, then, Nietzschean metaphysics is no longer humanist, but “posthumanist.”<sup>90</sup>

It is this postmodern and implicitly posthumanist metaphysics which Heidegger sees in *Ge-stell* as the essence of postmodern technology. This neologistic term has two primary components to its meaning. In ordinary German, *Gestell* has meanings like frame, framework, rack, and stand: “According to ordinary usage, the word *Gestell* means some kind of apparatus, e.g., a bookrack. *Gestell* is also the name for a skeleton.”<sup>91</sup> The root word, and first component of the sense of *Ge-stell*, is *stellen*, meaning to put, place, put or set something in place, etc., with cognate *Stellung* meaning position, state, situation, setting, and so on. This is also the root of the German word for “representation,” *Vorstellung*. To “represent” is literally to place before oneself or set in place before oneself: *vor + stellen*.

The second component lies in the prefix *Ge-*. This signifies, for Heidegger, a “gathering.” For instance, the German *Berg* means “mountain,” and “mountain range” is *Gebirge*: neither just one mountain in isolation, nor a number of them indifferently related, but a particular gathering of mountains into a unified phenomenon. Similarly, *Gestell* as “bookrack” is not just *a place* in which a book can be set, but rather *a gathering* of such places. A gathering and an *ordering*: *Ge-stell* is an ontological gathering-ordering

<sup>87</sup> Heidegger, *The End of Philosophy*, 94.

<sup>88</sup> Haar, “‘The End of Metaphysics’ and ‘A New Beginning,’” 153.

<sup>89</sup> Friedrich Nietzsche, *The Will to Power*, trans. Walter Kaufmann and R. J. Hollingdale, ed. Walter Kaufmann (New York: Vintage Books, 1967), 272.

<sup>90</sup> See Allen Porter, “Transhumanism and Posthumanism(s) on Education,” *International Journal of Philosophical Studies*, forthcoming.

<sup>91</sup> Heidegger, “The Question Concerning Technology,” 20.

functioning transcendently for particular ontical orderings, just as every potential ordering of the books on the shelf presupposes the frame of the shelf and the space it affords.

This indicates another essential aspect of "enframing" and of *Bestand* as the being of the "enframed": instrumentality. One does not order books on a shelf in the way that one hangs an artwork on the wall. The books are placed there to "stand by" for potential future *use*, for being taken down and read—moreover, a use indifferently related to their order on the shelf, unlike the aesthetic contemplation of the artwork in relation to its hanging where it is in a home or gallery. Where and how the artwork is placed determines how it will be experienced (in terms of lighting, in relation to other artworks in the gallery, etc.). Where the book is located is a matter of indifference for the reading; once one has it in hand for reading, it does not matter where it was shelved.

Heidegger illustrates this by considering how the construction of a hydroelectric dam (a power plant) upon the Rhine River transformed the latter's essence in a way an older footbridge did not. It is not just that the river becomes a source of power, a resource for energy extraction; it is that its being *as* that, as *Bestand*, has nothing to do with its "proper" (in the sense of "ownmost" or "for itself") essential being. As a source of power, the river is like any other "energy resource," from the wind to the sun, from horsepower to atomic power. For enframing "also entails a covering-over of things as they extend beyond the technological frame"—because their disclosure as *Bestand* reduces them to "'commodities' to be transformed, stored, and consumed in a way that obliterates difference and renders everything in a one-dimensional sameness."<sup>92</sup> Hence, while Heidegger rejects the conventional "anthropological," anthropocentric conception of technology in terms of instrumentality, instrumentality is nonetheless an essential part of his own conception. Under

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<sup>92</sup> Jeff Malpas, "Uncovering the Space of Disclosedness: Heidegger, Technology, and the Problem of Spatiality in Being and Time," in Wrathall and Malpas, *Heidegger, Authenticity, and Modernity*, 206; cf. Haar, "'The End of Metaphysics' and 'A New Beginning,'" 159–60. Steven Crowell, "The Challenge of Heidegger's Approach to Technology: A Phenomenological Reading," in *Heidegger on Technology*, ed. Christopher Merwin, Aaron James Wendland, and Christos Hadjioannou (New York: Routledge, 2020), 81–83, provides an important qualification to this claim about the "obliteration" of proper differences between beings: "It is not that we don't recognize differences between human beings, machines, and 'lifeless nature' or whatever; rather, it is that we act in such a way that those differences finally do not matter." This is what the "nihilism" of *Ge-stell*—the "drain[ing] of meaning" of the "presencing" of things, the "*Verwahrlosung* of the thing as thing"—means for Heidegger. Cf. Julian Young, *Heidegger's Later Philosophy* (New York: Cambridge University Press, 2002), 38: "It is very important to see that . . . 'technology' must mean, for Heidegger, technological *practice* . . . what we do with technological devices."

the sway of *Ge-stell*, nature and natural beings are projected as *Bestand*, which also means they are “challenged forth” to “stand by” for potential use. And not just nonhuman nature: the “claim” of *Ge-stell* “ceaselessly brings both men and things to take their places in the stark configuration that is being wrought out through ordering for use.”<sup>93</sup> Under the sway of *Ge-stell*, the human subject is no longer the ultimate foundation or privileged center of being—instead, humans are increasingly *subjected to* “autonomous” (or at least automated), auto-verifying systems of “mathematically rational” control. Just like everything else.

If the human was essentially conceptualized as *animal rationale* ever since the Latinization of Aristotle, and if in modernity man was reduced to his rational intellect in his being as subject of the world, then in postmodernity, man is reduced to his animality or “animal nature.” Man with his intellect is no longer *the* subject of rationality, but just another part of “nature” subjected *to* a controlling rationality that has become “autonomous” or at least automated to the point of becoming *posthuman*.<sup>94</sup> “The machine that was supposed to be our slave has instead become our master.”<sup>95</sup> Heidegger discusses Nietzschean philosophy in these terms in the third volume of his *Nietzsche*,<sup>96</sup> and as he puts it in “Overcoming Metaphysics,” a text consisting of notes from 1936 to 1946, the “collapse of the world characterized by metaphysics” and the “desolation of the earth stemming from metaphysics” find “their adequate occurrence in the fact that metaphysical man, the *animal rationale*, gets fixed as the laboring animal.”<sup>97</sup>

Hence the “supreme danger”:<sup>98</sup> that *Ge-stell* will realize the totalizing and even totalitarian will to “rationally,” “technically” control the world so well, so *totally*, that not only will all other possible “ways of revealing” being be

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<sup>93</sup> Lovitt, introduction to *The Question Concerning Technology and Other Essays*, xxix.

<sup>94</sup> Constituting an ironic return to and renewal of premodernity, some Singularitarian transhumanists might argue—in the sense that, on such a view, human rationality, technology, etc., themselves would have been “nature all along,” in a roughly Hegelian sense of nature as rational in the way history is for Hegel rational (as inevitably marching towards a particular telos with the unyielding iron necessity of logic itself). In other words (on this kind of view), history as a function of (the interactions of) human freedom is an ephemeral illusion, beginning and ending with awareness of humanity’s deterministic thralldom to nature, from our early days of enslavement to the elements to these last days preceding the birth of an artificial successor-species or AI god.

<sup>95</sup> Young, *Heidegger’s Later Philosophy*, 46.

<sup>96</sup> Cf. Haar, “‘The End of Metaphysics’ and ‘A New Beginning,’” 154–55.

<sup>97</sup> Heidegger, *The End of Philosophy*, 86.

<sup>98</sup> Heidegger, “The Question Concerning Technology,” 26.

precluded, but moreover this very loss will be forgotten as humanity itself becomes "posthumanity," becomes essentially *ge-stellt Bestand*. *Ge-stell* threatens to be "the last metaphysics," effecting the much-heralded "end of metaphysics" by effecting the end of the human being's essentially metaphysical relation to being; it threatens to end humanity's "ontic distinction" as the being which *is* "ontological" in its very essence<sup>99</sup> by transforming its essential being into *Bestand*. This is indeed "dehumanization," which "in the Heideggerian context" means "for people to lose their understanding of human Dasein's world-disclosive capacity and thus to become nothing but clever animals, that is, particularly flexible raw material useful for increasing the power of the self-sustaining technological system."<sup>100</sup>

In postmodernity, humanity is thus dethroned from its position, granted by Descartes, as *the subject* of being. Instead, it increasingly becomes subjected to automated and auto-verifying systems of posthuman, "mathematically" rational control. From a Heideggerian perspective, this is but the latest long-historical culmination of a metaphysical "erring" that was already ascendant in modern science and philosophy and already nascent in Plato.

##### 5. CONCLUSION: TOWARDS HEIDEGGERIAN METAMETAPHYSICAL ANALYSES OF POSTMODERN PHENOMENA

Heideggerian metametaphysics is certainly not the only hermeneutic for analyzing contemporary phenomena capable of providing valuable insights. I happen to believe it is the *best*, though arguing for *that* claim is well beyond the scope of this paper. Here, the most I can claim is that the metametaphysical account of (post)modernity elaborated above holds much promise as a philosophically profound and methodologically rigorous framework for critics and scholars to use in their attempts to understand postmodern phenomena, and indeed phenomena generally.

Such exemplarily postmodern phenomena as the technology of AI, for example—currently undergoing rapid (r)evolutions at the time of this writing—could be profoundly illuminated through this metametaphysics. What intellectual fruits might be wrought from considering AI as a form of enframing—e.g., analyzing the way "ChatAI" technologies like ChatGPT enframe the digitized products of human discourse as resources for the calculation of statistically most probable ways of continuing a given linguistic

<sup>99</sup> Heidegger, *Being and Time*, 32–34.

<sup>100</sup> Zimmerman, "The End of Authentic Selfhood in the Postmodern Age?," 127.

string—or from considering the ways we use such technology in terms of enframing, from the use of AI in “Big Data” analysis for the sake of marketing to its deployment in service of the Chinese “social credit system” and totalitarian surveillance state?

It is my hope that this paper paves the way for such further intellectual work, since I believe a radically renewed philosophical understanding of ourselves and our world has perhaps never been more urgently needed than in this “last,” or at least “latest,” moment of the “long modernity” of Western history.