

# I

## THE SETTING

“I suppose Descartes brought me to the point where he brought himself—to faith. Fact or fiction—in the end you can’t distinguish between them—you just have to choose.”

Graham Greene, *Monsignor Quixote*

**T**he primary aim of this chapter is to trace the philosophical influences that contributed directly to Max Weber’s formulation of the disenchantment thesis. But before we begin to outline these forces it is necessary to situate the investigation within a more comprehensive context. For it is crucial that we first gain some insight into the general assumptions which underlay such a conception and lend it its distinctively “modern” air. One way to do this is to familiarize ourselves with a pre-modern understanding of the thinking subject’s relationship to the non-human natural world and have this earlier conception serve as a standard against which the disenchantment problematic can be articulated and assayed. The investigation begins, then, as have so many other inquiries into the modern condition, by turning our eyes to the classical world—specifically, to its assessment of the man–nature nexus.

### The Turn Toward Epistemology

Nature, as conceived by the ancients, was neither straightforwardly ‘alive’ nor mere inert ‘stuff.’ Having long since abandoned animism, they had yet to interpret the natural world as simple extended matter. That is to say, although the gods no longer were perceived to inhabit nature directly, they nonetheless regarded nature within the context of an overarching metaphysical world view.

Aristotle is perhaps the best exponent of such an outlook in the classical world. In Book II of his *Physics* he argues that existing entities are characterized by a capacity for change. They exist to the extent that they have the potential to become something other than what they are. For Aristotle there were two primary causes of change within the material world and hence two basic kinds of being. There are, on the one hand, those objects whose principle of motion lies within themselves, and, on the other, those in which the agent of change lies without. The former type are categorized as natural objects and the latter as products of artifice, or artifacts. The primary difference, then, between the two kinds of being is that one (the natural world) is self-generating and hence not of human making, whereas the other owes its existence to the intervention of human agency. Thus the natural world, by virtue of its autogenetic character, possesses a kind of necessity—an order—that the fabricated world does not.

The 'nature' in a natural object is manifested in the process by which the object actualizes what it has the potential to become. All natural processes are linked together in terms of this fundamental movement—the realization of potency. But this understanding of nature reveals as well nature's imperfection according to classical understanding. For nature, by definition, is a becoming in search of being, and as such it presupposes the existence of an entity (Being) whose very essence is pure act, i.e., the divine *nous*, the so-called "Unmoved Mover." The being of nature thus is predicated upon Being as pure act.

For Aristotle, as for Plato, the greatest good for man is that activity which leads to an understanding of that which is highest. It is axiomatic for the Greeks that the highest is that which must be, the necessary order of things. Because nature is such an order, its study (the science of physics) is accorded an exalted rank in the hierarchy of sciences. However, because the natural realm implies the supernatural—the unchanging ground of all mutable being—the highest of the sciences for Aristotle is metaphysics. This differentiation in rank notwithstanding, it is important to note that both types of inquiry fall under the rubric of the "theoretical" sciences insofar as their aim is to contemplate the given, not to effect a change within it.

It was precisely because the ancients took the natural order to be necessary that they gave place to the theoretical science of physics over those sciences that have as their subject matter contingent processes and objects. The science of necessary objects, then, yields necessary knowledge, while that of contingent objects begets provisional knowledge. The productive sciences, in contrast, are conditional in a different sense, for they seek neither necessary nor provisional knowledge of what is but knowledge of the means to realize what might be. In attempting to further clarify this conception, it helps to recall the fact that the

products of nature's 'artifice' originate from nature itself. To the extent that nature "makes itself," it cannot be other than what it is. In contrast, the products of human artifice by definition do not make themselves. Rather, their origin lies in the mind of the artificer, or, more precisely, in the artificer's conceptual image of a proposed artifact. Because there is nothing in the 'nature' of a natural object that suggests it has been made into a determinate product, there is no necessity in the process by which the human producing agent determines the form its shape will take. Indeed, there is no 'science' of image fabrication. For Aristotle the science of production pertains only to the determination of the means best suited to realize a preconceived image. Knowledge in such matters, then, is a kind of technical know-how (an art) that perhaps is best captured by the term *craftsmanship*.

If, as Aristotle argued, the objects of human artifice are not what they must be, then the science of production could not possibly be interpreted as the highest form of rational inquiry. It is for this reason that the classical world view devalued the appropriation of nature as a use-object in favor of its treatment as an object for contemplation.

Theoretical science for the ancients was the most useful type of rational inquiry insofar as its practice led to the fullest realization of that which distinguishes man from beast, that is, his capacity to rationally comprehend the ground of his existence. The theoretical life therefore was acknowledged as the most human form of existence. Against this, the life of the artisan was considered less evolved to the extent that the reasoning that informs it is unconcerned with essences and focuses instead on technical matters relating to the manipulation of the material world for productive or creative ends.<sup>1</sup> It is a life guided by a subsidiary mode of reasoning, by reasoning conceived as mere contrivance or reckoning with consequences.<sup>2</sup>

Despite its various reinterpretations, the classical schema that ranked theory (contemplation) over art (production) retained its canonical authority until the onset of the modern era. It is with Descartes that we begin to see a self-conscious and systematic attempt to overturn the theory/art distinction formulated by Aristotle. Descartes does so by arguing that the highest science has as its appropriate end the investigation of nature for the purpose of mastering nature. In Descartes's estimation the most evolved scientific endeavor is no longer, as it was for the ancients, the act of contemplating the order of things, natural or otherwise. He redirects science away from such ontological concerns and toward the realm of the ontic. Nowhere is this better illustrated than in his assertion, in *Discourse on Method*, that "it is possible to reach knowledge that will be of much utility in this life, and that instead of the speculative philosophy now taught in the

schools we can find a practical one, by which . . . [we can] render ourselves the masters and possessors of nature."<sup>3</sup>

In this passage Descartes defines "practical philosophy" to indicate precisely the direction in which he wishes the activity of science to shift. Whereas for Aristotle "practical" or "political" science refers to the activity that has as its end the determination of those practices (the virtues) that facilitate *eupraxia*, "practical philosophy" carries no such ethical or political overtones for Descartes. Rather, it discloses his intention to collapse theory (science) and art (*technē*) for the immanent purpose of "conserving health," which Descartes assumes to be the basis "of all the other goods in this life."<sup>4</sup> The highest and most useful science now aims at promoting mere existence and not the good life.

Descartes's understanding of "practical philosophy" is grounded in his radical reinterpretation of what constitutes metaphysics. He begins by defining it as "perfect knowledge of all things that man can know . . . so that we must begin with the investigation of first causes, i.e., principles."<sup>5</sup> However, the Aristotelian tenor of this provisional account of the term is undercut when he adds that mind (*res cogitans*) and body (*res extensa*) are the two first principles (or "simple natures") of knowledge, and that, when taken together, they comprise the sum total of mind's knowledge. Unlike their classical counterparts, Cartesian first principles are wholly immanent. The philosophical repercussions of this revision cannot be overestimated: Now the highest science by definition must have as its proper subject matter the investigation of mind, body, and their interrelation. By reinterpreting metaphysics as epistemology, Descartes in effect argues that philosophy has as its primary focus not the essence but the existence of nature as a material datum.

What remains unexplained at this point is how the turn toward epistemology is related, in Descartes's thought, to the philosophical justification of the practice of modern science. The answer lies in the way Descartes perceives the linkage between mind and body. Simply put, he claims these first principles are known intuitively, knowledge of which, he adds, "arises from the light of reason alone." Moreover, knowledge of first principles is said to be arrived at "without any fear of error."<sup>6</sup> These pivotal assertions expose two major assumptions that underpin much of modern philosophical thought. On the one hand, it reveals the extent to which the ego is posited as autonomous and the source of knowledge of both mind and body. On the other hand, it illustrates Descartes's conviction that knowledge of first principles can be free of error and illusion only if 'mind' is perceived as removed from, or other than, "extended matter."<sup>7</sup> Implied in this latter assertion is the view that the obstacles in the path to clear reasoning are

due to a perception of mind as embodied, an understanding of fateful consequence for the disenchantment thesis.

No immediate purpose would be served by recounting the argument that led Descartes to rank mind over body. What is important to note, however, is that given this starting point, the only way he could have avoided the trap of epistemological idealism—the conclusion that because only mind truly exists, all it can know is itself—was to maintain that *res extensa* possesses a discrete reality of its own. But this presents Descartes with a new challenge, namely, to account for the manner in which these distinct substances interrelate, or to explain how mind comes to have knowledge of what is not-mind.

The Cartesian solution is decisive. He asserts that knowledge of extended matter cannot possibly be a product of sensual apprehension, for this presupposes, wrongly in his view, that the organ of apprehension is likewise embodied. Descartes therefore is forced to argue that knowledge of the “other” must arise from an intuitive mental act, from pure intellection.<sup>8</sup> What in fact the mind intuits in this regard is something analogous to “abstract matter” or “generic mass.” Specifically, it is that uniform substance which is said to “stand under” the accidents (sensory qualities) of corporeal objects. Since this substance is universal, in the sense that it is the common substrate that grounds particular manifestations of material being, qualitative differences between objects are reduced for Descartes to simple quantitative proportions. It is by regarding corporeal being as knowable only as *res extensa* that he was able to “mathematize” matter, and ultimately to render it accessible to the universalizing power of a controlling mind, to the power of technical rationality.

In review, the particular cognitive paradigm that the Cartesian revolution ushered in rests on two basic presuppositions that will prove to be of crucial significance to our discourse on disenchantment. The first is the claim that the proper domain of science (true knowledge) lies within the realm of “making,” the end of which is the mastery of nature for the purpose of facilitating a comfortable life. Secondly, there is the presumption that nature is capable of being mastered because mind can, as a result of its own operations, accurately represent nature (*res extensa*) to itself. Most important, for Descartes, our capacity to mentally apprehend the principles of the natural world means that corporeal being is intrinsically conformable to the dictates of controlling mind.

Descartes’s egological bias secures the foundation of his, and indeed all, variants of rationalism. But while operating within the same horizon that posits a mind/body (or subject/object) dualism, empiricism accounts for the interrelation of the two ‘substances’ from a perspective antithetical to that of rationalist thought. Although both

approaches ultimately share an identical objective—that is, to explain the manner in which mind and matter are reciprocally related—empiricist arguments hold that the solution lies in taking the “object” as the ultimate epistemological reference point. In contrast, then, to the attempt by rationalism to perfect the mind as a mirror of the external world, empiricism claims that the mind must conform to the reality of the object.<sup>9</sup>

For the empiricist, mind’s capacity to conform itself to the external order of things is taken as a given. Hence it is assumed that the obstacles in the path to a full understanding of nature lie not in the functioning of the intellect and its rational powers but in nature itself, in its propensity toward dissembling. For this reason the empiricist sets out to provoke nature (through repeated experimentation) into revealing its inner structure.

This disparity between approaches does not mean that rationalism in principle eschews experimentation or that empiricism abstains from rational reflection. What it does mean, however, is that the rationalist approach to empirical inquiry is performed in the spirit of confirming *a priori* theoretical deductions rather than attesting to the evidence of direct empirical observation. Contrarily, empiricism embraces reason, but it is a reason that, as Francis Bacon says, “is elicited from the facts by a just and methodical process. . . .”<sup>10</sup>

It was left to Issac Newton to unite rationalism and empiricism in such a way as to produce a new method for the scientific investigation of nature. The Newtonian synthesis is evinced in the extraordinary consolidation of *a priori* speculation and empirical research, whose practice led to the uncovering of those ‘universal laws’ that account for regularities in the behavior of observable phenomena. Modern Newtonian science, then, realizes the intent of “practical philosophy”—that is, the union of art (*technē*) and science (*logos*)—in a way which neither Descartes nor Bacon were capable of, given their predilection for subordinating matter to mind, or vice versa.

Kant regarded modern science as embodying the intellectual spirit of his age, the Enlightenment, in that science was a branch of learning that had discarded the dogmatic teachings of classical physics. He admired above all its independence of thought, an intellectual disposition he hoped one day might free all modes of rational inquiry from the bonds of “self-incurred immaturity.”<sup>11</sup> Deeply impressed by the progress made within the natural sciences, Kant wanted to extend the scope of their success by precipitating an analogous transformation within the field of metaphysics.

We have noted in our review of Descartes’s “practical philosophy” that the onset of modernity is signalled by a reinterpretation of reason’s highest end. It no longer has as its objective the contempla-

tion of the given but the understanding of natural processes for the purpose of acting on them. Thus the 'instrumentalization' of reason has been identified as a turning point in the discourse on disenchantment. We also have noted that the application of reason in modernity is premised on the assumption that the reasoning mind (the *cogito*) is distinct from that which it controls (*res extensa*).

The reason for Kant's inclusion in this narrative becomes apparent when it is realized that his philosophical initiative involves a further entrenchment of the rupture separating mind and nature. He renders the mind autonomous by arguing, *contra* Aristotle, that rational understanding is not privy to knowledge of any necessity, such as "nature" or "the order of things," assigned to objects independent of itself. That perspective necessarily presupposes that the mind is a passive register of what lies beyond it, a view Kant squarely refutes. To the contrary, he insists that the mind, through its *a priori* principles of understanding (e.g., intuitions, categories), actively organizes the world as we experience it. This is not to say, however, that our experience of the world is determined solely by the operation of understanding. For Kant, understanding can form its concept of an object only if it first receives, through the body's sensibility, some content on which to work. Hence our experience of the world is credited both to the mind's capacity to synthesize raw sense data and its own meaning-constituting principles of understanding.

It might be argued at this point that the mind's synthetic activity attests not to the rupture but to the integration of mind and body. While there is a certain surface plausibility to such a claim, it falters when we realize that, because our experience of the world is conditioned by the *a priori* structures of the mind, there can be no direct access to the 'thing-in-itself.' In other words, Kant tells us that we can never experience the world as it is but only as it appears to us after being structured by the faculties of understanding. Because our perception of "reality" is filtered through the mind's own organizing activities, our knowledge of the world necessarily is always a knowledge of appearances or the 'for-itself.' Thus the mind for Kant is cut off from the exterior world to the extent that the experience of the latter always is mediated by the mind's own functionings.

For Kant the natural or theoretical sciences necessarily are inquiries into appearances. Consequently, what reason discovers in terms of "laws" are in fact the forms it has imposed on sense data. But one thing our understanding of natural phenomena can never reveal, not even obliquely, are the ends of human action. It is silent with respect to questions of morality, Kant says, because "from no consideration of a thing or concept . . . is it possible to know and infer what we should do, unless what is presupposed is an end, and act a means."<sup>12</sup> Na-

ture, in short, offers us no clues as to how we ought to act. It is indifferent to human concerns. Here Kant adumbrates the is/ought distinction that Weber later adopts as a basic premise of his own reflections on morality.

But given nature's indifference to moral interests, the question then could be asked: Where do we look for a guide to practical action? Kant responds by saying that we must look to ourselves. He argues that since our understanding of how we ought to act cannot be drawn from our experiences within the phenomenal realm, our moral concepts must be rooted in an *a priori* rational faculty. Practical reasoning, according to Kant, presents moral agents with an autonomous moral law—the categorical imperative—whose dictates they are obliged to obey. The “rational” moral actor, therefore, acknowledges the moral law within, and acts in accordance with its directives.

In conclusion, in Kant's critical and ethical writings we witness the full impact of the egological revolution. His claim that the mind has no direct access to the world underscores the extent to which the theoretical investigation of the natural world reveals as much about the *cogito* as it does about its object. However, nowhere is the impact of this revolution more evident than in Kantian ethics, where, as we have noted, the moral will has no recourse but to will an end independent of all experience external to it.

### Positivism and Anti-Positivism

If, with Kant, there arose a radical disjunction between the theoretical-scientific and practical-ethical realms, then it is equally true that modern philosophical thought is concerned in part with finding a way to reconcile these disparate realms. The work of Auguste Comte presents us with one such effort. It is of special importance to this study since the means he chooses for this resolution entail the extension of the powers of science and scientific rationality to include realms previously unincorporated.

Comte states that metaphysical questions are “outside the domain of positive philosophy.”<sup>13</sup> True knowledge, he says, rests on observed facts. Not unexpectedly, Comte traces the scientific method—which he terms “positivism”—to the pioneering efforts of Bacon and Descartes. He regards his philosophical mission as a completion of their “vast intellectual operation,” namely, to eliminate the remaining vestiges of “the superstitious alloy of scholasticism” and the ulterior motives that moved “the astrologers and the alchemists.”<sup>14</sup>

Comte notes that positivism's maturation was a slow evolutionary process, which, during his lifetime, was only beginning to be fully ac-



tualized. From Comte's perspective, Newton and Kant were exemplary representatives of the "transitional phase" in the development of positivism, where elements both of scientism and pre-scientism (e.g., theology, metaphysics) were intermingled. There is much evidence to substantiate his claim. We see in Newton, for instance, an almost schizophrenic disjunction between his work as modernity's leading natural scientist and his equally earnest efforts in the study and practice of alchemy.<sup>15</sup> Kant, on the other hand, upheld a scientific understanding of nature while denying that this understanding could illuminate the realm of practical action.

This disjunction between theoretical and practical forms of inquiry troubled Comte, for in his view it bespoke a false dichotomy. Unlike Kant, he regarded the realm of practice (the "social" domain) as an appropriate object of scientific study. Consequently, any system of thought that segregated the natural from the human world Comte deemed an obstacle to what he calls "practical philosophy." The objective of this new philosophy, then, is to sustain a harmony between "the active and [the] speculative point[s] of view." He argues this can be achieved through applying positivist methodology to the domain of social interaction. Comte's ambition, in short, is to devise a natural science of society—the science of "social physics" or "sociology"—whose end is the determination of its immutable rational laws.<sup>16</sup>

It is not necessary for our purposes to outline the findings of Comte's new "science." Rather, it suffices to note that he believed the scientific determination of "social facts" would lead to an understanding the true order of society and the optimal configuration of the various sciences for the promotion of social utility. Thus the call for a "science of society" manifests in itself a desire to extend the range of instrumental knowledge.

If with Comte we witness the hegemony of scientism—the belief that the "objects" of scientific inquiry include both the human and non-human worlds—then its reign was short-lived. The claim that the behavior of all "facts" are explainable in terms of universal laws that account for the necessary causal connections between irreducible phenomena was soon under attack by a number of late-nineteenth-century social theorists, two of the most important being Wilhelm Dilthey and Heinrich Rickert.

What these men questioned was not the status of natural scientific reason, *per se*, but the appropriateness of its application to the study of human action. Hence the revolt against scientism is not to be interpreted as an absolute rejection of positivist methodology, but a call for its containment. In order to facilitate this end, they might have been tempted to reinvoké the Kantian distinction between the mechanistic natural world, on the one hand, and the human sphere

characterized by freedom, on the other. However, as we have seen, for Kant this delimitation amounted to a shielding of the practical domain from causal explanation and, hence, from scientific knowability. This defensive rescue of the practical realm from "science" was unacceptable to both Dilthey and Rickert. They assert, on the contrary, the need to articulate a new non-mechanistic "science of man" capable of yielding knowledge of human affairs.

For Dilthey, the true object of philosophical investigation is the "human sciences," or *Geisteswissenschaften*. As with Comte before him, Dilthey wanted to emulate the success achieved by natural scientific inquiry by establishing a human science "based on experience." But in contrast to the positivist methodology of Comtean social scientific research, Dilthey's human sciences were to be based on a distinctly non-positivist but nevertheless scientific mode of inquiry. He rejects the adequacy of causal explanation to render intelligible the study of man in favor of a method founded on "understanding," or *verstehen*. As Dilthey says: "Understanding is our name for the process in which mental life comes to be known through the expressions of . . . [mental phenomena] given to the senses."<sup>17</sup>

For Dilthey, understanding is made possible only by "re-experiencing" the intentions, emotions, and general state of consciousness of the actor as expressed either through his actions or through artifacts. It is for this reason that one understands from the "inside" alone. Thus an analysis of an actor's "behavior" is but a requisite means of entering into his intentional world and eliciting understanding from it. Access to this world, however, is dependent upon actor and observer's sharing a common field of being. The capacity to read another's intentional world presupposes that its contents summon forth resonances within one's own experiences. We could not, in short, understand the meaning of another's actions unless we ourselves were beings capable of meaningful action.

In light of this analysis we then could pose the question: Is an understanding of the non-human natural world possible, according to Dilthey? The answer, in a word, is "no." Because for Dilthey understanding implies intentionality, the natural world necessarily lies beyond its purview. Having no "inside"—no consciousness, volition, or self-reflective rational capacity—nature can be comprehended only in the purely mechanistic terms of cause and effect. Nature therefore is regarded by Dilthey as an insensate "object" that stands opposed to the sentient "subject."

By combining some elements of positive science (i.e., empirical observation) and hermeneutical understanding, Dilthey hoped to "continue on Kant's critical road . . . to discover the laws that condition the social, intellectual, and moral phenomena."<sup>18</sup> This being said, it is im-

portant to note that Dilthey does not envision the practitioners of the human sciences pursuing a disinterested form of knowledge. Dilthey's claim that this knowledge will lend its possessor the "power over mental phenomena" needed to "determine human actions and thinking" reveals its utilitarian or technological impetus.<sup>19</sup> And so, in the final analysis, his new science of understanding is undergirt by the same ethos of mastery that guided Comte's sociological investigations. Just as the natural sciences had ostensibly laid bare the abiding infrastructure of the natural order and hence cleared the way for dominating it, Dilthey's human sciences are to perform the same function by penetrating the obscurity surrounding the coherence of human action.

Rickert shares with Dilthey an interest in establishing a typology of sciences that reflects fundamental differences in modes of rational inquiry. However, Rickert clearly disagrees with Dilthey's criterion for making such distinctions. He argues that sound reasoning demands that methodological or "formal" differences between the sciences have as their ground a "formal" distinction as well. The claim Rickert is putting forth here is very Kantian. He asserts that it is not the object of study (i.e., the natural versus human world) that ultimately dictates methodology, but the orientation the mind employs in dealing with its subject matter. Methodology is determined, he says, by the manner in which "incisions are made in the flux of reality, and the essential elements selected."<sup>20</sup> This separating out of essential elements from the continuum of reality is for Rickert an *a priori* mental capacity. It is the means by which we conceptualize the world as either "nature" or "history."

By conceiving the world as nature, we adopt the scientific posture to the extent that our analysis centers on its "general" aspects. Natural scientific inquiry, Rickert tells us, excludes from consideration "everything that makes any aspect of reality unique, non-repeatable, and particular." On the other hand, when we conceive the world as history, it is the "individual" or singular aspects of the world which capture our attention. The historical or cultural sciences therefore have as their subject matter everything but the common or generic elements of reality.<sup>21</sup>

Because the distinction between nature and history is formal, Rickert argues that the classification of the methods of natural science and history bears a logical symmetry that eluded Dilthey's formulation. Yet Rickert does not, in spite of this, abandon the notion of a material distinction between the content of the sciences. He retains an essentially Diltheyan (positivistic) orientation toward nature, stating that natural objects are devoid of value and hence can have only a "perceived" existence. In contrast, Rickert asserts that cultural

phenomena are value-laden. They are, he says, either produced by man in accordance with some valued end or they are pre-existing objects upon which man confers meaning and value.<sup>22</sup>

### **The Nietzschean Critique**

Despite disagreements over the criteria for establishing a comprehensive typology of sciences, Dilthey and Rickert share a common assessment of the natural sciences and the objects of their investigation. They make the claim, thoroughly Cartesian in character, that natural phenomena are mere bits of extended or disenchanting matter. Consequently, nature can be apprehended only as a mechanistic order functioning in conformity with certain universal laws that account for its regularities.

In comparison with their efforts to contain scientism, the Nietzschean critique of scientific methodology is far more radical. It can be interpreted, in fact, as a critique of disenchantment. This puts him in a unique position among those thinkers who have been cited as contributing, either directly or indirectly, to the Weberian discourse. For on the one hand, Weber co-opts certain Nietzschean themes in his writings on methodology and more substantive issues. Hence we must acknowledge its formative role. However, because Weber's articulation of disenchantment postdates Nietzsche's critique of it, we have to present reaction to the disenchantment thesis even before its full elaboration by Weber himself.

We begin by observing that Nietzsche addresses the issue of "scientific" thought—that is, virtually all philosophical thought, classical and modern, along with modern science—by probing its motivational or psychological origins. In *The Birth of Tragedy* he asks: "what is the significance of all science, viewed as a symptom of life?"<sup>23</sup> In other words, what does the activity of science tell us about its practitioners' general orientation toward the world? What attitude or frame of mind prompts their investigations? Nietzsche tersely responds: fear. Specifically, it is the fear of, or the escape from, "pessimism" that accounts for the scientific world view. It is rooted, he says, in a denial of the "fundamental knowledge of the oneness of everything existent, and the conception of individuation as the primary cause of evil, of art as the joyful hope that the spell of individuation may be broken in augury of a restored oneness."<sup>24</sup>

Modern science for Nietzsche is but the full realization of an impulse that extends back to the ancient Greeks. He interprets the latter's fondness for "logicizing the world" as an indication of their alienation from the Dionysian flow of life. Platonism, in particular, is

singled out as a mode of thought sustained by an acute sense of resentment against the flux of existence. Its attempt to master the senses and the sensible world by means of "pale, cold, grey conceptual nets" is evidence of its decadence, according to Nietzsche.<sup>25</sup>

The scientific impulse, then, is anti-nature insofar as it rebels against the basic condition of existence—the mutability and interrelatedness of being. The misapprehension that fuels the mastery of the world is manifested not only in the effort to conceptually freeze its flux, but in the belief as well that these ideational structures are representations of the world as it really exists. Thus the "will to truth"—the will to believe that one's understanding of the world is complete or total—is likewise symptomatic of a decadent world view. It is for this reason that Nietzsche castigates men of the "objective" spirit, those who perceive the mind as mirroring the "essence" of reality and uphold the conviction that the attainment of knowledge corresponds to the transcending of "delusion."<sup>26</sup>

To endorse such a view is to assume a disjunction between the realm of appearances—of delusion—and a "true" world that lies behind or beyond it. It is to assume as well that the mind is capable of breaking through the veil of appearances to apprehend the "real" world that is its grounds. This world view, according to Nietzsche, wrongly presupposes that the mind is removed from the phenomenal world, that it is positioned at some Archimedean point outside the realm of appearances. He argues, in contrast, that the mind (like the eye) is fundamentally embodied and hence exists within the world of flux. As thinking beings, we necessarily confront the object of our understanding from a particular vantage point in space and time. There can only be, as a result, "perspectival" knowledge, or knowledge from a certain point of view. Moreover, because all knowledge is "situated," one no longer can speak meaningfully of a "reality" that transcends perspectival understanding, or of a "text" apart from interpretation. Philosophical expressions, such as "absolute knowledge," "immediate certainty," or "thing-in-itself," are therefore vestiges of a mode of thought that vainly tries to escape the very condition of its own possibility.

For Nietzsche, then, the problem with modern science—or with most philosophical thought, for that matter—lies ultimately not in the content of its understanding but in the fact that it takes its understanding seriously, that it regards this as an accurate reflection of the true order of things. Nietzsche counters this view by speaking of a science that is an affirmation of life, a so-called "gay science" or "joyful wisdom," which adopts an ironic or playful attachment to its 'explanations.' Freed from the false consciousness that infuses metaphysical world views, the Nietzschean wise man remains open to the play of alternative interpretations while formulating his own.<sup>27</sup>

### Summary and Conclusion

In review, we have noted that thinking, doing, and making comprise three qualitatively different sorts of enterprise for Aristotle. The “first” of the theoretical sciences (metaphysics) has as its goal reason’s apprehension of first principles—the transcendental ground of being. Thus the first science is ontology. In contrast, the point of the “productive sciences” is simply to acquire knowledge of the means needed to realize the image of an artifact. Productive science therefore denotes “rational calculation” within the realm of making. “Political science,” finally, is for Aristotle an inquiry into what constitutes proper order within society. Its end is determining the principles of good order.

From the perspective of this tripartite ordering, pathological states of affairs can be said to arise when these domains of activity no longer are kept distinct. For instance, with the fusion of politics and art, the master science of the good devolves into a “political *technē*.” A noteworthy example of this is expressed in Hobbes’s declaration that “by *art* is created that great Leviathan called a COMMONWEALTH . . . which is but an artificial man . . .” (emphasis added).<sup>28</sup>

The central focus of this chapter has been to clarify the theoretical and practical ramifications of the fusion of a different constellation of sciences, namely, those of theory and of art. I have stated that this fusion—initially expressed in Descartes’s “practical philosophy”—had the effect of deontologizing the “first science” of modernity. By wedding theory to *technē*, the highest philosophical queries were redirected toward establishing a knowledge of those immanent “substances” that would yield to humans the power to master nature. The new foundational question became: “How is it that we know reality?,” or, “What is it of reality that we know?” Modern philosophy is characterized by these sorts of epistemological concerns. The general response to questions of this sort, I have pointed out, is that knowing is conceived of as the process by which what is outside the mind is accurately represented to the mind. Hence, in order to understand how the mind comes to know the world, it is necessary to apprehend the way in which the mind is able to construct such representations. It is for this reason that modern philosophical thought can be said to manifest an egological bias.

Modern natural science is the theoretical-practical enterprise that has as its goal the attuning of mind’s representations of the world (in the form of “laws of nature”) to its external ‘reality.’ This coherence was achieved, it has been noted, by regarding natural phenomena as quantifiable generic mass, as “disenchanted.” So seductive was this scientific view of the natural order that Hobbes, who, we have seen, takes politics to be an art (a form of “making”), patterns his construc-

tion of politics after the prevailing mechanistic conception of the workings of nature.

The political and ethical repercussions of scientism are evinced in Kantian critical science, as well. Kant's claim that there can only be scientific knowledge of phenomena effectively created an epistemological barrier between science and matters of moral judgment. Comte attempted to close this gap: He maintained that there ought to be a positive science of society every bit as certain in its conclusions as those attained by the natural sciences. Dilthey and Rickert also wished to establish a "human science," but they rejected Comte's positivistic route. They introduced in its stead a new mode of comprehending "social facts," namely, the science of hermeneutics. All the while, however, their allegiance to the methodology of the natural sciences remained steadfast, at least in the study of natural phenomena.

Nietzsche's comprehensive critique is directed at combatting the positivism inherent in the epistemological search to secure certain universal foundations of knowledge. A disenchanted world for Nietzsche is a world locked into a *Weltanschauung* that takes its perspectivism seriously, that is, as revealing 'reality.' Consequently, all manifestations of cognitive and moral absolutism are subject to his invective, for the attempt to stabilize meaning leads ultimately to the enslavement of man in a world other than the one in which he lives and dies. It is this will to "truth"—to attain knowledge that is free from illusion—that for Nietzsche constitutes the prevailing ethos of a disenchanted age.