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WHAT IS METAPHYSICS?

"Metaphysics" is a miserable word. To many intelligent members of the public it fails to communicate at all; to others seeking occult mysteries it communicates the wrong thing; and to an influential segment of the philosophical community it communicates only a realm of frustration and intellectual bankruptcy. Why stick with it? For many reasons of convenience I would prefer to avoid it. At one point in my teaching career I renamed my metaphysics course Theory of Reality and rechristened my epistemology course Theory of Knowledge to match, in hopes of sidestepping initial confusion and resistance. But almost immediately I had to admit to my students that what we were *really* doing was metaphysics, since most of our texts used the word. My attempted evasion was a failure.

Neither Plato nor the pre-Socratics, powerful metaphysicians that they were, called what they were doing "metaphysics." Even Aristotle, whose great volume by that title saddled posterity—apparently forever—with the term, never used it to refer to what he was doing. Instead he spoke of "First Philosophy," which sounds adequately deep but a good deal less obscure. It was only his editors, by later placing the volume containing his First Philosophy immediately after-the-Physics (in Greek, "Meta-Physika"), who created the word we love to hate but seem unable to shake.

HOW METAPHYSICAL THEORIES ARE FAMILIAR

Be that as it may, metaphysics is nothing more (nor less) than the theory of reality in general. There have been and are many different such theories, of course,

just as there have been and are many different theories about less comprehensive topics. Some are more sophisticated, some less. There should be nothing strange or off-putting about this. Nothing is more familiar than the clash of alternative ways to understand something. What marks metaphysics as unique is that *all* of reality, not just parts of it, is included as its subject matter.

This unlimited comprehensiveness of metaphysical attempts at understanding creates some special logical problems, since, in principle, nothing can be left out. But before we get to those problems, it is important to recognize that theorizing about reality in general shares most of the normal traits of theorizing about anything.

Making a theory is a kind of thinking. As such, it is an activity of beings endowed with mental powers of memory and imagination sufficient to form concepts—which rise at first out of recurrent features recognized within the jumble of immediate experience—and to manipulate them so as to interpret some subject identified as problematic.

All theory has a purpose, a job to do that enforces certain standards on the pain of self defeat. At a minimum, the concepts used need to be put together in ways that avoid cancelling each other out. If the problematic subject is identified as "red," it will be conceptually suicidal to identify it also, at the same time and in all relevant respects, as "not-red." That would be simultaneously to give and to take away, leaving nothing accomplished. Thus, the first functionally grounded requirement of theory—that it maintain the capacity to mean something rather than nothing—is reflected in the standard of *consistency* that theories, simple as well as grand, need to meet.

A second built-in purpose of a theory, to interpret the problematic, to provide a sense of understanding, requires more than simple noncontradiction between its elements. That is a merely negative condition. More positively, if we are to find our way among our ideas, the conceptual elements of our theory must positively hang together so that we can move smoothly without gaps from one element to another. When there is a "hole" in the detective's theory, the police are wise to wait. This stronger functional requirement for theorizing is that of *coherence*. We should be able to reach to the next concept without letting go of our handhold on the last. What this specifically means in practice will differ in different circumstances, but all theory is better (all other things being equal) the closer its concepts fit together.

Concepts are useful to the functions of theorizing, however, only to the extent that they successfully capture important regularities from the given domain where understanding is sought. Note that this observation makes a significant turn in the discussion. Consistency and coherence are what might be called "internal" standards, since they are concerned with the way conceptual elements relate to one another within a theory. But this third standard may be called "external," since it directs attention outward to the *applicability* of the

theory to its subject matter. The standard of applicability is minimal. For example, it would be rare (and crazy) to find a theory whose concepts all deal with the refraction of light, being put to use to explain the frequency of divorce among children of the clergy. But applicability is a standard worth noticing, just because it is so fundamental. On the external side it reminds us of what consistency is on the internal side: both are *sine qua non* for the theorizing enterprise. Without consistency, we wind up thinking nothing; without applicability, we find ourselves thinking nothing about the topic of interest.

Just as consistency on the internal side needs supplementing by the more demanding (and more difficult to measure) criterion of coherence, so mere applicability is not enough to measure success in theorizing. It is too easy to satisfy. Much more is needed than merely *some* important data from the problematic domain; in principle, *all* relevant evidence is required if our understanding is to be secure. Gaps in evidence on the external side are as potentially damaging to theoretical success as are holes in coherence on the internal side. This fourth standard is *adequacy*. In principle, it demands evidential completeness. In practice, such perfection in adequacy is no more possible for real-life theorizers than is perfect coherence. But both adequacy and coherence set worthy goals and thus provide useful standards for assessing better or worse as attempted theories approach or fall short of them by greater or lesser extent. A humility-reinforcing way of putting this is that there are, in principle, ways of distinguishing greater from lesser theoretical failures.

The situation is made more complicated (but more realistic) by the fact that the sliding scales of coherence and adequacy tend to work against each other. The detective may be able to develop a tight case against the suspect if allowed to omit several bits of evidence from consideration. Coherence here finds the criterion of adequacy a bother. But premature coherences need to be resisted when justice is at stake. Still, the police department cannot be ordered simply to go out and collect all and everything, helter-skelter. What is worth going for—the relevance of evidence—is itself largely theory-driven. The insatiable demands of adequacy need limitation, discipline, and definition by coherence.

The polar tensions between the internal and external requirements of theorizing are encountered everywhere, at high levels and at low. If I am trying to decide what kind of person you are, I am, whether I realize it or not, engaging in theory-construction. I have a limited amount of data (on the adequacy pole) of which to "make sense" (on the coherence pole). The evidence is mixed; it does not all fit into neat concepts like "pleasant" or "flighty" or "malicious." These concepts themselves strain against each other. I am tempted to say inconsistent things, but that would not help me understand you; that would only lead me to self-confusion. I would like to wait and let you reveal more of yourself (enlarge the adequacy dimension); but perhaps circumstances do not give me the luxury of delaying before making some decision that will depend on my theory of you. Then I need to select the "more important" evidence from the "less important." How do I do this? For better or worse, I must use partially formed theory-fragments, together with intuition and hunch, to select what I find most significant among the mixed signals you send me. Then I may use this still admittedly imperfect theory in my decision, but, if I am wise, not without full acknowledgment to myself that my conclusion is as shaky as my closure—though practically necessary—was logically premature. What I must never do, however, is suppose that my new theory of you, once reached, is beyond improvement by more data, when available, and/or by more thinking. Equally, I must not despair and suppose that evidence and reflection are useless simply because I realize that my theory is far from perfect. Jumping thoughtlessly into decisions without considering evidence—however mixed and confusing—is no reasonable response to the elusiveness of theoretical perfection.

HOW METAPHYSICAL THEORIES ARE STRANGE

So far I have stressed the common features of theorizing. But metaphysical thinking is different in one enormous respect from all the rest: it aims at complete comprehensiveness. This makes for trouble.

One troublesome consequence of the unlimited comprehensiveness of metaphysical thinking becomes quickly apparent when we try to make use of the consistency principle. There is so much to be covered. Everything in the universe is to be put under this rule. Have we any right to step into this vast domain with any confidence that our consistency criterion will apply everywhere? What if the universe, taken as a whole, just happens to contain mutually inconsistent features? Who is to say—right from the start—that this is impossible? Is the criterion of consistency, once set to work as a cosmic rule, simply a grand question-begging device?

No, the rule of consistency cannot in principle tell us what we are going to find among the data. Least of all can it rule out the (very probable) outcome that reality, as we get to know it better, may be more bizarre than our wildest fantasies. One of my favorite professors once ended a graduate class in metaphysics with a disclaimer of personal insight into the intimate secrets of ultimate reality; but to this modest conclusion he added a dramatic caution as he folded away his notes: "Whatever reality turns out to be," he rumbled, "it will certainly be *strange*." Apparently inconsistent properties of things appear with regularity in advanced physics; why should this suddenly cease as we cross the line to metaphysics?

My answer is that consistency does not rule out strangeness; it does not in any way legislate for reality. It is a rule of our thinking, the precondition for effective theory. It is thinkable of course that fundamental reality may be

unthinkable. In the long run, all our theorizing about the ultimate may be defeated. That meta-metaphysical possibility is what is finally at stake in the (highly meaningful) question of whether or not reality in its entirety is ultimately hospitable to the rule of consistency. There are no guarantees. But until we are ready to abandon the whole enterprise, our drive to understand, while respecting every apparent inconsistency, will treat each as a challenge to deeper pondering, aiming eventually to resolve paradoxes and show reconciling intelligibilities. This we note is also the pattern in the sciences: even when alternative models remain paradoxical, as in the incompatible properties of "waves" and "particles," their tensions are resolved in underlying mathematical theory.

We may then have a choice whether to theorize, but if we choose to theorize we have no choice but to try to think consistently. This attempt need not be shallow and must not be dogmatic. Unless we open our minds to conflicts, oppositions, and antagonisms—both in the evidence and in what we want to say about it—we shall be left merely with the "foolish consistency" that is the hobgoblin of mediocre theories. And yet inconsistency unresolved ruins thought. This is true in limited domains like physics and is no less true when our thought aims to encompass the whole of things; but as the subject matter enlarges, so do the opportunities for inconsistencies and therewith the difficulties of making sense. Each difficulty, nonetheless, is a challenge for the construction of better theories. Far from posing a question-begging substantive doctrine, then, the rule of consistency supplies a firm methodological discipline for question-answering and—where the answers clash—for focused newanswer-seeking.

If special difficulties are posed for the rule of consistency by the unlimited comprehensiveness of metaphysical thinking, so much the more should we expect troubles to surround the criterion of coherence. Consistency is "merely" a minimal threshold requirement to allow thinking to proceed without self-cancellation. But coherence, as we noted, is far more demanding. Coherence mandates that ideas used for understanding any subject matter fit together, make sense. How can this ideal possibly be approached when the subject matter is (literally) everything?

There are times when we philosophers are morally no less than epistemologically obliged to acknowledge the arrogance—the sheer presumption—of trying to pour the ocean of reality into the thimbles of our minds. This is one of those times. If there is a justifiable ground for rejecting the whole enterprise of metaphysical theorizing, here it is. Many have done just that. I for one cannot bring myself to blame them. In the past I have been in their company. I still recoil from the whiff of dogmatism. If ever a "know-it-all" attitude is radically inappropriate, it is when one is indeed trying to know the *All*.

That acknowledged, what is left? For some of us, at least, there is a powerful counter-intuition that thinking carefully about the small context while failing to do our best at thinking about the largest context is itself irresponsible. Every belief—every action—carries implications for its contexts, all the way up. If I spread my picnic blanket in a pasture, I imply that there is no raging bull behind the bushes. If I first check behind the bushes, I imply that bulls are dependably visible things that can be seen and avoided. By so implying, I take for granted the context of natural regularity and causal predictability. And so it goes toward wider and more inclusive contexts. If any of the larger contexts is not as I assume, everything is changed, all the way down. Meanings shift. Practical precautions are defeated. If the chief of police turns out to have been the head of the crime syndicate, then all the detective's plans and actions, laid in a false context, undergo a sea change in significance, both theoretical and practical. If only our sleuth had thought with more care about that possibility before he stepped into his own trap! Larger contexts count.

The largest context counts, too, despite the difficulties (and the presumption) in thinking carefully about it. Admittedly, it is not a topic that holds charm for everyone. Fortunately, not everyone is required to do it. Yes, it attracts more than its share of cranks and quacks, dogmatists and fanatics. But what can be done "badly" can be done "less badly"—perhaps even "well," considering the given limitations. That is, if standards can be identified that rationally justify assessing a job as *poorly* done, then by the same standards we have some guidance on what would be required if it is to be done *better*.

Coherence as we saw before is a question of better or worse. It is a standard that is hard to measure, and one that is present or absent by degrees, in comparison with alternatives. More coherence, all other things considered, helps; less coherence, hurts. But where do we begin when the job is to bring as high a degree of coherence as possible to the entire realm of reality?

The task of understanding a subject matter is to move from the known to the unknown, or, more accurately, from the relatively better known to the relatively less known. This requires casting around for features in the (relatively) known that make sense to us, particularly for patterns in things that hang together, that can lead our minds with some security from one part of the pattern to another. These features or patterns in relatively well-known things become "models" when we apply them to new, relatively unknown domains. Then they function as analogies. If we are trying to understand sound by imagining it as an ocean wave, there should be something to the subject matter of sound like the height of water waves from crest to trough—call it amplitude. Again, if sound is like a wave, there should be something in the subject matter like the closeness of the waves as they traverse the water—call this frequency. Third, if sound is like a wave, then what kinds of media can perform the "waving"? If we identify air or water or the resonant earth itself, we find (in coherent

harmony with our model) that where there is no medium to transmit wave-like motions, there is no possibility of sound. The more we understand how water waves behave—are interfered with, reflected, and the like—the better we understand the phenomena of sound.

Models are aids to coherent thinking, but they are never identical to the subject matter they are brought in to illuminate. There are always differences, or the model would not be simply a model any longer. Sometimes the differences can be surprising, as physicists found when extending the model of waves to light and other electromagnetic phenomena. At first they assumed, naturally, that if light is like waves, there must be some medium in which the "waving" occurs, as in water waves and sound waves. To make the theory coherent, therefore, a medium of very thin "ether" was postulated, spreading throughout space. But this is one of the surprising differences between light waves and water or sound waves. In 1887, Albert A. Michaelson and Edward W. Morley showed, by precise measurements with their newly invented interferometer, that no such medium could be detected. "Ether" was a physical postulate with a systematic function but without any empirical referent.

Metaphysical postulates are also often made for systematic purposes, suggested by great, constitutive analogies that help provide a conceptual pattern for the domain of reality as a whole. To think coherently about such a huge domain requires all the help from models and analogies that philosophers can derive. Is reality like a great machine, a watch perhaps? This would suggest many moving parts finely adjusted to each other, dependably interacting without taking thought. Is reality, rather, like a great living organism? Is it ultimately personality and its products? Or is it more like a dream, all play of illusion on the surface but connected by deep reference to an underlying subconscious? These models and many more have been proposed and developed in human attempts to think about the outermost context of our lives. Unfortunately for the control of such thinking, it is not always clear what would count legitimately as empirical constraints on the fertile coherences cultivated on the suggestion of metaphysical models. What could challenge metaphysical thinking as the Michaelson-Morley interferometer experiment challenged physical theory, showing the referential emptiness of a systematically required concept?

Should metaphysical thought, even in principle, be tied down in any way to the empirical standard of applicability? My contention is that it should and must be so linked. But the "outermost context" character of metaphysical thinking makes one pause. In lesser contexts, when "all" that is wanted is theoretical understanding of some limited domain of actual or possible experience (as in physics), it is obvious that theory needs to be applicable to data in that experiential domain. But at the all-comprehending level of metaphysical theorizing, is not the authority of experience itself one of the open questions?

Should our experiences be granted the honorific title of the *data* (Latin for the givens) to which thinking is fundamentally responsible?

This is not an obvious matter. We must not ignore the old tradition that experience as a whole is misleading or illusory, not the "Way of Truth," as Parmenides put it before the birth of Socrates. Will we not beg the question against Parmenides (and against much profound Asian conviction) if we insist that applicability to data of experience, Parmenides' mere "Way of Seeming," is a necessary condition for good metaphysical thinking?

Perhaps there is no alternative. Our experience is simply there. It provides the given starting point for all thinkers, including those who would think systematically about what is real in general. In what medieval philosophers called the "order of knowing," it comes first. This does not mean that we must take whatever we are given at face value. That the moon *appears* to be about the size of a coin does not mean that it is about the size of a coin. The givens of experience are often in much need of mutual correction.

Metaphysical theories such as Parmenides', that hold experience as a whole to be fundamentally flawed, usually make some bold differentiation, as between Truth and Seeming. The data of experience give only Seeming, they say. Truth lies somewhere else. So far, although obscurely expressed, these theories may be right. Our whole experiential apparatus may be in need of critique. But such a position does not (so far) deny the need for the applicability of theory to experience. On the contrary, the door remains open for detailed application of this doctrine, for example, an explanation of why familiar experiences should, on further examination, be considered flawed, and in what ways. What is inadmissible is the self-contradictory implication that a metaphysical theory can be both comprehensive in its "Truth" and also fail to apply to or illuminate the whole domain of experience. Experience may indeed give us mere Seeming, but nevertheless seeming occurs—and needs to be accounted for in terms of what is held as Truth. It is the function of all-inclusive theories to include and explain, not to dismiss and avoid. To the extent that Parmenides' position was merely dismissive of Seeming, the position, however stimulating, was flawed metaphysics. And it may be well to add in this context that the flaw is not simply in complete lack of applicability but also in radical incoherence between the realms of Truth and Seeming. There is no conceptual passage from one to the other. Here is testimony to the power that bold, simplifying abstractions can wield over the judgments of intelligent persons: viz., that Parmenides and his spiritual heirs, to the present day, continue to command prestige despite failing marks both in coherence and in applicability.

Applicability, as we saw, is only a minimal standard compared to adequacy. The former only requires *some* bearing on relevant data; the latter calls for consideration, ideally, of *all*. Even in limited domains of inquiry this is a

difficult standard to approach. What then are the prospects of adequacy in the unlimited realms of metaphysical thinking?

There is no point in fooling ourselves. This is an impossible standard to meet, particularly in metaphysics. Like the criterion of coherence, it shows us a direction and holds up an ideal. It provides a scale of ever keener attention to ever richer data, with the high end disappearing beyond our powers to achieve, but a scale on which in the middle ranges we are able to measure comparative approximations.

One obvious handicap in achieving metaphysical adequacy is the human data receptor. Our senses are dull at best. Even perfect vision, for example, is adequate only to the tiny segment of the electromagnetic band in which the visible spectrum falls. Above violet, our unaided eyes are blind to shorter wavelengths and higher frequencies like X-rays or cosmic rays. Similarly, below red, the visible data disappear. But reality as a whole, though invisible to us when infrared or ultraviolet, is still bombarding us with would-be data. That bombardment would be relevant—all data are relevant in principle to metaphysics—if only we could detect the incoming flow. Luckily, instruments have been invented to help expand the range of sensory data collection. In consequence, it is not immodest, only realistic, to acknowledge that our theories today can be graded higher on the adequacy scale—though doubtless not in all respects—than Plato's or Aristotle's, because of the vast increase of available data made possible by the instrumental technologies of modern science. Just as Johannes Kepler's theories were made more adequate because of the patient observations of Tycho Brahe, and just as Galileo's arguments were provided resources of adequacy eventually to trump his scholastic opponents thanks to the concrete data from his telescope, so metaphysical thinking today is blessed (and cursed!) by the immense ranges of data provided by the instruments of the special sciences. The blessings of additional data are obvious: What might Aristotle have done if allowed access to merely as much information as every high school graduate takes for granted today? But the curse shows itself on the other side of the same coin: there are too many data for bold coherences to fit easily; and new data pour in all the time, constantly challenging the models through which those aiming at adequacy try to think comprehensively and coherently as well.

Oddly, in view of the already limited powers of human data receptors, some metaphysical theorists have been inclined to impose further limits on what shall be recognized as relevant data. They have argued that only the intuitions coming from the sense organs (of sight, hearing, smell, taste, and touch) should be attended to. And of those, only a small portion should count: only that portion amenable to quantitative treatment thus excluding all qualitative aspects, not only such aspects as the so-called secondary qualities of heard tones, felt textures, or seen hues, but also such elements as the dim awareness

of power and significance or even the vivid sense of beauty. The intuitions expressed through poetry or painting, religion or ethics, must be ruled out in advance as nondata.

This proposal was widely accepted through the modern period. It had the virtue of making the achievement and defense of abstract coherences much easier, since it lops off exactly those would-be data which are hardest to fit into mathematical models of mechanical systems. But this was an achievement cheapened by diminishing the meaning of adequacy. It would seem that real respect for adequacy—at least when placed in its final, comprehensive context—puts the burden of proof on those who propose exclusionary policies. Such exclusions may well be justified when a more limited subject domain is at issue: for example, the domain of physical things only. They become much less easily justified when the domain includes organisms or persons. When the domain expands to cover all reality, however, these policies seem supported only by dogmatism in the service of some treasured metaphysical theory.

HOW METAPHYSICAL THEORIES ARE VALUED

Treasured? Yes, metaphysical theory, however abstract and dry it may seem, is enmeshed with the deepest values. Therefore I need to conclude this opening chapter with a survey of the main ways in which metaphysics and values intertwine.

I have already introduced the distinction between a model, used to advance metaphysical thinking, and the theory it suggests and interprets through its relatively familiar features. The theory itself may be highly abstract. It provides the logical bones and joints that articulate the model in an as literal-minded way as possible, given the metaphorical origins of language as a whole. Inevitably, the suggestive model, drawn from familiar domains of experience, all of which are value-laden positively or negatively, carries with it some implicit value context. When the interpreted theory has articulated a full-fledged metaphysical scheme and has become influential, moving people in the ways they understand themselves, look at others, organize their institutions, and anticipate their destiny, we have what I shall call a worldview.

Worldviews, as I use the term, are not quite the same as metaphysical theories, strictly speaking. Someone may have a worldview without being adept at metaphysical theorizing. Indeed, a worldview may be so pervasive that it is invisible to those who have been reared to see through it, just as a pair of clean eyeglasses is to a reader or, better, as the medium of clear air is to a land-scape painter. The painter sees the distant hills as blue, although it is the medium of air refracting light that causes this perception. There is nothing "wrong" with this. We all see the hills in the same way. Similarly, there is nothing necessarily vicious in the systematic influences exerted by worldviews on

our beliefs and attitudes about ourselves, our society, and our universe. Still, there is nothing especially admirable in being unaware of influences that may be causing us avoidable problems.

Comprehensive visions of reality, worldviews, need not necessarily derive from prior metaphysical theorizing. They may instead emerge from the "final context" poetry we call myth. Mythic imagery in turn may play a large role in supplying vivid and evocative models to suggest and interpret explicit metaphysical theories. In this way, metaphysical theorizing and mythic traditions may work powerfully in tandem.

Sometimes, however, worldviews in popular culture are the residue of technical and explicit metaphysical theory-construction. This is clearly the case with the mechanical worldview—derived from the careful genius of Descartes, Galileo, Hobbes, Gassendi, Newton, and others—that has claimed and still claims the allegiance of great numbers of intellectuals and ordinary people in the modern period. There are good value-reasons to admire this worldview and the metaphysical theory that underlies it. Besides powerfully validating and further encouraging the mathematical sciences, with which it has always been allied, the mechanical worldview had from its origin the astringent virtue of countering its predecessor magical worldview, in which unchecked superstition, witchcraft, religious wars, and persecutions could and did flourish.

The categories of mechanical metaphysics ruled out in principle, however, the notion of "casting spells" across distances with no intermediate causal means. Witchcraft, given the mechanical model and its articulation in metaphysical theories of contiguous efficient causation, was simply impossible, literally unthinkable. Mind, on the same theory, could in principle have no grip on matter. Fear of hexes or the evil eye could once and for all be set aside. There was no place on the logical map for such concepts. Thus, the mechanical worldview could be treasured for its antiseptic powers in ridding the modern world of goblins and ghosts and the terrible social costs in turmoil and torture that the magical worldview exacted from those trapped inside its transparent, mind-bending medium.

Unfortunately, antiseptics, though immensely valuable for some needs, make a poor permanent diet. The mechanical worldview inherited the grave metaphysical difficulty of accounting for its own value and for values in general. The positive realm of beauty, love, courage, loyalty, creativity, fairness, friendship, and hope seems in principle as vulnerable to dissolution by the antiseptics of the mechanical worldview as the fearsome kingdom of magic and witchcraft. Neither is grounded by, or has any secure counterpart in, the "real" world of matter in motion. As beauty is reduced to something figuratively in the "eye [really the mind] of the beholder," so all values are literally figments of mentality, in this worldview. There is no more place in the logical geography of such a worldview for "values in nature" as there is for "hexes" or "wizards."

But neither is there a secure place for "mind" itself. Mind is as ineffective as it is intangible. It is a mysterious, somewhat embarrassing, addition to the mechanical vision of things, arbitrarily imposing tastes and preferences that have no warrant in purely objective things themselves.

What, then, of the importance of the cleansing power of the mechanical worldview itself? The claim to importance is itself a value judgment. Similarly, shall we conclude that our preference for the austere virtues of the mechanical worldview, if we do prefer them, reflects only an arbitrary taste? Is the magical worldview not really (somehow) worse? Are superstition, intolerance, and persecution only bad "in the eye of the beholder"?

It may be answered that the great theorizers of the seventeenth and eighteenth centuries gave us truer theories; but what is the importance of such an achievement if "importance" itself is only a figment of mentality? Suppose, for argument's sake, we freely grant that effective theorizing "just is" important to people with minds, whatever the ultimate grounding—or lack of it—such intuitions may involve. Then it follows that metaphysical theorizing, even assuming the most austere vision of reality, is involved with values from the start. The first value implicit is that such thinking is important enough to be done, and if done, done well. That much granted, other values crowd in as instrumentally essential for the job to succeed. They are such values as honesty before the data, submission to the rules of consistency, coherence, applicability, adequacy, and readiness to respect the criticisms of others who may see more clearly than we where we have gone astray from our commitment to honor such values.

Instrumental values of this sort can be noble and demanding, as we see. To be instrumental need not be trivial; we should never allow ourselves to say "merely" instrumental values, as though they were of little worth or importance. More, instrumental values have the significant trait of being nonarbitrary. Given the goal, they represent the means to reach it. If the goal is valued, some set of them must be valued too.

At the same time, it should be recognized that instrumental values are never valuable in a vacuum. It is only because there are some values that are not instrumental but "final," end-of-the-line, or "intrinsic," that "intermediate," on-the-way, or instrumental values gain what importance they can claim. Some values may be both. Health is a value of intrinsic importance to the organism that enjoys it. But at the same time, being healthy is an important means to many additional ends, both intrinsic and instrumental, that could not be reached without it. My good health is not only enjoyable in itself, for the glow of well-being I treasure without reference to anything more, but also my health allows me to work and earn money. The work in my case is, like health, a dual value: it is intrinsically satisfying and it pays a salary. The money, in contrast, is only instrumentally valuable to me. Earning it allows me to exchange it for other

things I value, again either for themselves, intrinsically (e.g., musical recordings), or for both instrumental and intrinsic values (e.g., warm, good-looking clothes), or for further instrumental goals alone (e.g., a shovel for the garden).

What needs to be remembered by metaphysical theorizers is that experience is not neutral. It is not the sensory mirror of a value-free world of mere objects. Experience is instead shot through with intuitions of value, both intrinsic and instrumental. We find the data of experience inseparable from interests and aversions, hopes and fears, joys and pains, sorrows, satisfactions, and obligations. Normal experience is full of vague intuitions of importance, drawing our attention toward some features rather than others. Such intuitions change with added experience; not unlike sensory intuitions, they are corrigible and educable. But only because they are "given," along with all the rest of the contents of experience, can they provide the foundation for the intrinsic valuations which, in turn, give shape and meaning to the instrumental.

One of the most profound questions of metaphysical theory is the status in reality of these intrinsic valuations. One obvious instance is posed by religion. Human beings, since the beginning of recorded history, have reported intuitions of transcendent value. In prehistoric times, archaeologists tell us, there are numerous traces of what can best be interpreted as rituals of worship. What is the "final context" status of these intuitions and practices? For example, are the intuitions purely events in the psyches of individual organisms, simply the firings of neurons or the chemical effects of endocrine secretions? Are the practices simply social manifestations of suggestible groups, frightened by the unknown or coming to terms with the dawning realization of mortality? These are metaphysical hypotheses. They cohere with larger metaphysical theories about the nature of things in general. These theories, in turn, suggest worldviews in which modern churchgoing is seen as high-toned persistence of savage superstition.

Other metaphysical hypotheses and theories are available. It can be maintained that the intuitions of transcendent value experienced by many over long periods of time are points of contact, not purely intra-individual events. Contact with what? Many different theories could offer different answers. But to cohere with the relatively lower-level hypothesis that transcendent value intuitions are referential, not simply psychological, these higher-level theories must allow conceptual place at a minimum for something that is valuable beyond the valuer. For monotheistic religions, an appropriate theory would need to maintain that something in reality is the *most* valuable, uniquely worthy of worship.

Religion affords only one domain in which the question of the metaphysical status of intuitions of intrinsic value strongly arises. Our ethical experience provides another. We often experience some situations as intrinsically bad—the malicious torture of a helpless animal, for example—and others as intrinsi-

cally good. Some decisions or actions we regard as right and virtuous, others as wrong and despicable. Are these experiences grounded in something about these situations, decisions, and actions that makes them so? Or is our experience of ethical value purely subjective? Powerful metaphysical theories would preclude any referential status for ethical intuitions, ruling out the hypothesis that there is anything really better or worse in the world, assuring us instead that only thinking makes it so. Other theories would allow, in one way or another, the grounding of ethical intuitions in the nature of things. These differing theories give rise to clashing worldviews, in which the weight of moral obligation and the lure of the good are differently perceived, and in which the institutions of human society function in strikingly different ways.

Probably the most difficult domain for modern people considering the reality-grounding of value intuitions is that of beauty. We live surrounded by stimuli that give us experiences of aesthetic aversion and attraction, but our worldview leads us to doubt that there is anything "out there" that is ugly or beautiful. Our dominant metaphysical theories assure us that the hues of the rose in full bloom, the sunset's splendor, or the rainbow's subtle spectrum are not to be reckoned in the world but only in human responses to the world. If this theory can be challenged on grounds of incoherence and inadequacy, and if another can be offered with stronger credentials, the referential character of value intuitions would be strengthened even in its "worst case" context. That should make it correspondingly easier to defend reality-reference for intrinsic value intuitions in other domains, such as ethics and religion. It is a challenge worth pursuing. This book will increasingly focus on it as we progress toward prospects for a postmodern metaphysical theory and a postmodern worldview worthy of humanity's future.

One more thought before we turn to the work ahead, in which this thought will be developed in historical detail. Theories may and do rule on the status of values, as I have illustrated in the foregoing, but that is not the whole story. It is also the case that our values precede our theories in real life and lead us in their construction (or approval). Even in the sciences we have become aware of the degree to which expectations, including such factors as hopes and career commitments, influence what we notice within the total range of the presented data. Attention is selective, and we can hardly expect that when the entire field of reality is before us our powers of attention will grow to match. We should expect, therefore, that our values will have a role in suggesting possible fruitful lines of thought. In addition, these leading values will definitely play a decisive role in influencing us on how long to hang on to a theory, model, or worldview threatened by problems. A treasured worldview is hard to give up. A theory that gives this worldview its cognitive credentials, by the same token, is protected from quick dismissal, even in the face of serious acknowledged flaws. It gathers what I later call "theoretical commitments." Even in the natural sciences, the limits of rationality, in hanging on to a struggling research program in hopes of its eventual vindication, are flexible. So much the more, then, should we expect latitude in debates between metaphysical theories on which profound values are staked. What seems to some as "ideational loyalty" or "creative hope against hope" will appear to others as sheer obstinacy. This cannot be helped. The domain of metaphysical thinking is not one in which cognitive coercion is a likely outcome.

Even more must this be so since the very standards of cognitive success are themselves involved in the valuational complex that constitutes metaphysical thinking. I call these standards "epistemic norms." They will be more fully treated in volume two, Knowing and Value, of the present trilogy. Still, such norms are present from the start of theorizing and are inescapable if we are to think theoretically at all. Choosing (whether boldly and consciously or just absent-mindedly) to think in this theoretical way, however, is already a valueladen act. Its norms cannot be coerced. By citing facts and descriptions, no one can force another to adopt a norm or affirm a prescription. In this chapter, I have therefore proceeded without embarrassment to declare and advocate my suggested epistemic norms—consistency, coherence, applicability, and adequacy—for "effective" (normative word) or "successful" (normative word) metaphysical thinking. If I have not in the process won my readers' free consent, I cannot expect to capture it by bullying or bluster. On matters so fundamental, I can and must hope. So long as these hopes are disappointed, I can only continue to do my best at thinking explicitly within my openly announced norms, so that others can see clearly what is going on, while at the same time I remain willing to listen to proposals of other norms of good thinking. However, what "thinking" could be, without incorporating those four basic epistemic norms, baffles me. I am confident that any dialogue to convince me of additional or revised norms would need to manifest at least the minima I have proposed. They seem too basic to ignore or evade.

Still, even this had better not be said dogmatically. The story of metaphysics is full of surprises. Norms have changed over the history of thought as we shall see in the chapters ahead. Whatever we do, we shall continually need to return to examine our thought in light of the basics—and to reexamine what we take to be "basics"—to see whether there are matters still more basic that demand reexamination. The invitation to join in this process is the best answer to "What is Metaphysics?"