

PART II

THE PHILOSOPHY OF NATURE AND BEYOND: PLUMBING THE DEPTHS OF THE COSMOS

DOES THE PHILOSOPHY OF NATURE
NEED THE INTUITION OF BEING?
IF SO, WHAT IS IT?

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[The] theory of sets appears to us as predestined to man's creation of that new species of slaves henceforth indispensable to civilization: electronic machines, calculators, computers, and logic machines—in other words, a new species preadapted to the “thought” of a machine. This form of thought remains absolutely incapable of any intuition whatsoever and of any universal idea formed from the world of experience.¹

—Jacques Maritain

Although the computer was still in its infancy nearly four decades ago when Jacques Maritain examined its role in the natural sciences, there was already a sense shared by many that the computer's potential was virtually limitless. Yet a computer is bereft of both intuition, with its characteristic immediacy, and the universals abstracted from sense experience. The natural scientist, by contrast, reflects on a wealth of universals abstracted from sense experiences. These universals come into play in scientific hypotheses, which further experience tends to verify or falsify, through a process that continually refines and enriches the natural sciences and thus extends them beyond the experiences and insights with which they began. But with this advance in knowledge, as a checkered history shows, comes a power embodied in an ever more extraordinary technological development that tempts us to reduce everything to the material. So it is that Richard Rorty is able

¹ Jacques Maritain, *Untrammelled Approaches*, translated by Bernard Doering (Notre Dame, Indiana: University of Notre Dame Press, 1997), 329. Chapter fourteen in this work, “No Knowledge Without Intuitivity,” first appeared in *Revue Thomiste*, vol. 70, no. 1 (1970): 30-71. Chapter eleven in this same work, “Reflections on Wounded Nature,” on which I also draw in this essay, first appeared in *Revue Thomiste*, vol. 68, no. 1 (1968): 5-40.

to issue a signature provocation: “[S]cience is the handmaid of technology.”²

For his part, Maritain takes a sharply different view, one that is decidedly anti-reductionist. The computer, however useful as an instrument, is incapable of intuition, perceptual or rational. But science, Maritain contends, demands an exercise of intuitivity, and in a variety of ways, which convention-based formal systems—for example, Boolean algebra—cannot achieve. Natural science begins with an immediate and already “intelligentiated external sense” that even the most sophisticated camera lacks.³ We find another sort of intuitivity, as well, in the individual scientist’s flair for a particular mode of inquiry. And, at an even deeper, foundational level, we find an intuitive connaturality with the world, one that directs us in deciphering the world and leads us “first and foremost to the existence of things.”⁴

There is a kind of intuitivity, as well, when a scientist looks beyond received systems and sees what is real in a fresh way. Breaking from explanations that no longer explain, the scientist asks “*What is actually taking place in reality?*”⁵ The question has a power of its own. Drawing inspiration from it, Maritain recognizes (independently of Thomas Kuhn, it seems) that “*without any rational or discursive process, there spring up like sparks, first a new image in the creative imagination toward which the mind turns and then a new assertion in the intelligence which changes the entire system of ideas accepted up to that time.*”⁶

Turning from science to natural philosophy, we find that it begins with the same sorts of thing, ordinary sense experience and its objects, and it does much the same things with them, seeking to reveal their intelligibility. By examining the inquiries of the natural scientist, whether well established or groundbreaking, natural philosophy

² Susan Haack recounts this provocation in her *Manifesto of a Passionate Moderate: Unfashionable Essays* (Chicago: University of Chicago Press, 1998), 32.

³ Maritain, *Untrammelled Approaches*, 341.

⁴ Jacques Maritain, *Approaches to God*, translated by Peter O’Reilly (New York: Macmillan, 1954), 19.

⁵ Maritain, *Untrammelled Approaches*, 313. Emphasis in original.

⁶ *Ibid.*

continues to deepen our understanding of the world. Yet, for all the distinctiveness of the natural philosopher's task, Maritain contends that, in one important respect, it is very much like the task engaged in by the neighbor working in his garden, or the botanist carrying out an experiment. For, like the natural philosopher, both begin their tasks already possessing a certain view of what *is*. It is about this that they ask their questions.

Success, however, comes to the gardener and the scientist in different ways. If the gardener's success is a rose with a splendid bloom, the botanist's success is more likely to be a better test for the type of soil in which roses bloom so well. Their methods also differ. Whereas the gardener tends the rose with an amateur's loving eye, the botanist uses mathematics to confirm the new soil test. So the botanist's method is "empiriometric," that is, it introduces a mathematical perspective and in doing so appeals to our interest in the quantitative dimension of the real. This turn to mathematics brings us beyond the first degree of abstraction to the second. Yet the botanist stops short of asking the sort of questions that would take his enquiry to the level of the third degree of abstraction and into the realm of the metaphysical.

But what about the natural philosopher? If the gardener and the botanist can make do without metaphysics, why should the natural philosopher pay it any mind? Because he seeks a deeper grasp of what *is*—and of why it is as it is. The natural philosopher seeks to move beyond the intelligentiated external senses to an "intelligentiated imagination."⁷ Natural philosophy reflects on ordinary experience and the natural scientist's account of it, and therein a range of intuitivity comes into play, as noted above. Why the philosophy of nature should concern itself with the metaphysical role of a distinctive intuition of being is the question we will endeavor to answer in this paper.

I. ON THE INTUITION OF BEING

Making this question especially difficult to answer is the controversy surrounding the very possibility of a distinctive intuition of being and how, assuming it even exists, we are to understand it. But, before turning to these matters, we must first distinguish the intuition

⁷ *Ibid.*, 341.

of sense-perception from the intuition of intellectual perception. Both, as we have seen, play a critical role in natural science. With the characteristic immediacy of the intuitive, sense perception provides the data which the intellect draws upon to grasp the essence, the *quidditas*, of external things. With its own immediacy, the intellect fashions within the perceiver the immaterial presence of the thing perceived, assimilating it as intentional being. Thus, in some way, the soul becomes everything, and how better to start than with a rose! Given the perception of a rose, and the intellect's abstractive process, we can know that a rose *is present* to us.

Having understood this much, we must next explain the movement from the awareness of the rose's qualities to the judgment that the rose *exists*. At this point, we might begin to speak of the distinctive intuition of being. A philosopher, reflecting on the very act of judgment, might even experience an intuition of being in trying the exercise himself. For others, the catalyst might well be of a different sort, perhaps more subjective in nature. Maritain explains that it is "on the occasion of some individual reality grasped in its pure singularity" that one might anticipate "an intellectual intuition of being."⁸ Wonder at the redness of a rose and the force of nature that it heralds might prompt the intuition of being; so, too, might the wistful realization that the rose must soon wither. In any case, this distinctive intuition opens up the intellect to "the primary and super-intelligible source of intelligibility."⁹ Thus, Raïssa Maritain recalls that "it has happened to me on occasion, by a sudden intuition, to experience the reality of my being, of that profound principle, the very first, which places me outside of nothingness."¹⁰

Hers, we know, is the testimony of a poet. But if a poet, and indeed anyone of us, might have an intuition of being, what is left for philosophy to do? A great deal, indeed. To be sure, it belongs to philosophy to analyze the preconditions for the intuition of being, to explore how a "pure singularity" might spark it, to examine how grasping the being of, say, a rose leads to recognizing being as

⁸ *Ibid.*, 225. For a sampler of such occasions, see W. Norris Clarke, *The One and the Many: A Contemporary Thomistic Metaphysics* (Notre Dame, Indiana: University of Notre Dame Press, 2001), 27-28.

⁹ Maritain, *Untrammelled Approaches*, 225.

¹⁰ *Ibid.*, 225, n. 33.

participated in by the rose and yet magnificently transcending it. A philosopher's account of the structure of the intuition of being underscores, first, that it is an intellectual act, an *immediate* intellectual vision. Such an account also points to the difference between the "is" of existential affirmation and the "is" of qualitative predication. Qualitative predication, such as "the rose *is red*," presents a quality as the object of perception; by contrast, the existential affirmation "the rose *is*" presents an *act* as the object of intuition. In acting as a catalyst for the intuition of being, it is not the redness of even a singularly red rose that is grasped; abstractive apprehension, the first act of the intellect, only enables one to grasp the rose's redness. Rather, in such an intuition, one grasps the rose's very act of existence.

Such an intuition of being occurs within judgment, the second operation of the intellect. Only in judgment, for Maritain, does idealism give way to realism. Judgment affirms in the mind the *suppositum*, "as that subject itself is posited outside the mind, in extra-mental reality."¹¹ To make this judgment is "to grasp intuitively, or *to see*, the being, the existence, the extra-mental *esse* of that subject."¹² This seeing, he says, is "the intuition of being."¹³

Intuiting the rose's being, its act of existence, allows for a pivotal shift in meaning. One can now move beyond the univocal sense of "is" in everyday speech. Both the gardener and the botanist use this univocal sense in their respective tasks. But an intuition of being leads us to think, and speak, of the act of being in everything; it leads us to appreciate that everything *is* in its own analogous way. Maritain makes the key connections.

[B]y the same process (for in seeing that this rose *is*, I recognize at the same time that outside my mind there *are* as well, each one in its own particular way, a multitude of other things), it is being itself that is revealed to the intelligence, in the mystery of its limitless horizon, and of the irreducible diversity with which it posits before us each single existent.¹⁴

¹¹ *Ibid.*, 220.

¹² *Ibid.*

¹³ *Ibid.*

¹⁴ *Ibid.*, 225.

And if we experience an intuition of being, could we not by an act of apprehension return to it? In doing so, we could then form a *concept* of being; and by an analogy of proper proportionality, we could apply this concept to any particular existent.

Unfortunately, a stubborn ambiguity complicates our work. In a celebrated dispute between Jacques Maritain and Étienne Gilson on the nature of the intuition of being, four competing alternatives were considered.¹⁵ The intuition of being, it was said, is either:

1. the judgmental grasp of the “to be” or *esse*, of sensible things;
2. the judgmental grasp of being, or *ens*, not limited to its realization in sensible things;
3. both (1) and (2), or;
4. (1), along with the formation of an analogous concept of *esse* at a degree of abstraction beyond that of either the initial abstraction of apprehension or a subsequent act of judgment.

Sorting through these alternatives, John Knasas has argued that Gilson refers to (4) as the intuition of being and denies that it exists. Gilson does not deny (1), although he would reject (2). For his part, Maritain affirms (3); he also affirms (4) and its Thomistic good standing, but he does *not* term (4) the intuition of being. Rather, for him, (4) calls attention to how we form a concept of a trans-physical and supra-sensible *esse*.

If there is an intuition of being, it serves as a window onto the structure of the real, and we can appreciate how it falls to the philosopher to probe the concept of such an intuition. As Maritain notes, “if a child or a poet can have ... each in a particular way, the intuition of being, nevertheless such concepts of abstractive origin, and formed at the third degree of abstraction, are proper to the metaphysician.”¹⁶ Here, indeed, the metaphysician will need to draw a critical distinction. To speak of being, *ens*, is to refer to an analogous commonality. But we cannot do so without speaking of being as *esse*, as the act of existing. It is the intuition of being as *esse* which enables us to

¹⁵ For the basis of this delineation, see John F.X. Knasas, “Gilson vs. Maritain: The Start of Thomistic Metaphysics,” *Doctor Communis* 43, no. 3 (1990): 250-65.

¹⁶ Maritain, *Untrammelled Approaches*, 233.

appreciate the analogous commonality of being as *ens*. To be sure, we can speak of the intuition of being as *ens*, the second alternative considered above. But an intuition of analogous commonality depends on the intuition of the act of being, of *esse*.

II. QUESTIO DISPUTATA

It is time now to turn to a critical objection to the intuition of being. For easy reference, we can call it “the sensory limit objection.” This objection insists that an intuition of being could not be at the core of metaphysics, the study of being as such. And why not? The problem is as follows. In judging that a rose is present, one might intuit that the rose *is*. Still, the critics argue, the act of existing—the *actus essendi*—that one intuits is limited to sensible objects, for example, wine and roses. But metaphysics does not limit itself to physical things and their properties. Whatever is at the core of metaphysics must transcend the physical, but it is just that which the intuition of being is unable to do.

Indeed, against Maritain, Gilson contends that an intuition of *esse* would be an intuition of God. But, since any intuition that we might have must be keyed to the *esse* of sensible objects, surely we have no such intuition. From the knowledge of contingent beings, we might construct an argument for the existence of *esse ipse per se subsistens*. But argument is not intuition. Maritain, for his part, identifies the third degree of abstraction as the context wherein a new act of apprehension allows us to form a concept of an intuition of *esse* transcending the physical order. Yet we cannot think without an image, and thus Gilson demurs. “[S]ince there is not some image of existence [qua] existence, which is a pure intelligible, the intellectual intuition is refused here below, [even] to minds that are most skilled in metaphysical meditation.”¹⁷ *A fortiori* it is not the fare of children or poets!

How, then, might friends of the intuition of being reply? We would do well to start with a pair of background considerations. First, whether there is explicit support in Thomas for a given thesis is less important than whether that thesis is compatible with his vision, and Maritain’s brief for the intuition of being is in harmony with the teaching of the Common Doctor.

¹⁷ See Knasas, “Gilson vs. Maritain,” 260.

Second, Maritain's thesis on the intuition of being does not undermine the work of natural philosophy, as some worry.¹⁸ For it is only with natural philosophy that we grasp the realities of generation and corruption and of matter and form. Doing so, we set the stage for causal inquiry into the coming to be of matter and form, and thus natural philosophy helps prepare us for the intuition of being. For clarification, Maritain writes that "metaphysical intuition is formally independent of the philosophy of nature" and yet "materially and as to us, it presupposes the philosophy of nature: not in its completed state, no doubt, but at least in its first positions."¹⁹ Maritain, accordingly, has no intention of serving up some easy short-cut to metaphysics.

Beyond these initial observations, a second pair of observations neutralizes the sensory limit objection. The first is that the singularity that often triggers the intuition of *esse* is irreducible to the wholly empirical. Consider the wonder that there is something—say, roses!—rather than nothing at all. This wonder might itself trigger an intuition of *esse*; so, too, the dread that one day there might be nothing at all.

The second observation generalizes from the first. One's mental acts, for example, taking joy in the richness of existence, are not reducible to the empirical.²⁰ But these very acts might trigger the intuition of being. Such acts engage our freedom. Indeed, perhaps no experience is more powerful than freely choosing and acting. It is telling, then, that St. Thomas sees freedom of the will as proper to metaphysics rather than to the philosophy of nature.²¹ To be sure, freedom involves sensory operations. But they are preconditions for the exercise of freedom as an act of the will, itself a power of the soul. Nor does an act of the will depend on the data of the senses as constant concomitants. Of note here is Thomas's broader claim that some things do not *by nature* exist in matter and motion, and "[i]n this way being, substance, potency and act are separate from matter and motion, because they do not depend on them for their existence, unlike the

¹⁸ See Benedict Ashley, *The Way toward Wisdom: An Interdisciplinary and Intercultural Introduction to Metaphysics* (Notre Dame, Indiana: University of Notre Dame Press, 2006), 61-67.

¹⁹ Maritain, *The Philosophy of Nature*, 3-4.

²⁰ See Peter Geach, "What Do We Think With?" in *God and the Soul* (London: Routledge and Kegan Paul, 1978), 30-41.

²¹ See *In De Trinitate*, q. 5, a. 2, ad 7m.

objects of mathematics which can only exist in matter.”²² In like fashion, neither do cognitive acts depend on sense data as constant concomitants. Knowing is an act of the intellect, and the intellect itself is a power of the soul. But an act of knowing is a real act with a distinct *habens esse*. Together, the free and intellective acts of the human person expand the range from which we can form a concept of *esse* that transcends the physical.

There is, indeed, more to say about the link between free acts and acts of knowing. Absent knowledge of alternative states of affairs, we have no insight into shaping our future. But doing so is at the heart of our capacity to go beyond the here and now. So, an act of transcendence, drawing on the cognitive and volitional, emphatically exists; it is a *habens esse*. When we reflect on the acts of existence, the multiple *esses*, of such objects of intuition, we form a concept of *esse*, and in doing so we are not restricted to the data of physical objects. For Maritain, the intuition of being is “of that act of existing which is the act of every act” and “in which all the intelligible structures of reality have their definitive actuation, and which overflows in activity in every being and in the intercommunication of all beings.”²³ Act depends on substance; but so, too, does substance depend on act.

Maritain, for his part, insists on the interplay of knowledge—including the knowledge of metaphysical reflection—and intuitivity. Intuitivity takes various forms, and the intuition of being is the initial dynamism of metaphysics. “[A]t its very beginning,” we find “that intuition *par excellence*, the intuition of being, and that as it advances rational step by rational step, it is constantly animated and illuminated by this primordial intuition.”²⁴ It is time now to shift our focus and turn to a key implication of the intuition of being for natural philosophy, especially as it reflects on the world of hyper-technology that the natural scientist now inhabits.

²² Thomas Aquinas, *The Division and Methods of the Sciences (In De Trinitate 5-6)*, q. 5, a. 4, reply, 3rd revised edition, translated by Armand Maurer (Toronto: Pontifical Institute of Mediaeval Studies, 1963), 45.

²³ Maritain, *Approaches to God*, 18.

²⁴ Maritain, *Untrammelled Approaches*, 341-42.

III. AN IMPLICATION FOR NATURAL PHILOSOPHY

The intuition of being most directly bears on the philosophy of nature in regard to how a Thomist philosophy of nature counteracts a narrow physicalism and its attendant scientism. For Maritain, the philosophy of nature is "*participatively* illuminated by metaphysical intellection and the intuition of being," and as such is "a door that opens onto wisdom."²⁵ Without an opening to the intuition of being, Maritain argues, the philosophy of nature is deficient and its challenge to scientism falters. Thus weakened, it tends to find both its beginning and end in the natural sciences alone. Rather than leading us to a richer vision of the real, it turns in on itself.

Here, a reflection on the language of being is pertinent. Natural science, we recall, makes use of "to be" in a restricted univocal sense; indeed, it employs the same univocal sense that ordinary language does. Suppose that hearing a knock, I exclaim "McInerny is here." Yes, he is present—come to spin a yarn. Consider, next, a shift from the everyday to the scientific. An archeologist of the future announces: "The golden dome is here, under the sands." Nearby, another shouts: "Here lie the bones of a paleo-Thomist!" Apart from the grim tidings that they bear, there is something unsettling about such statements. Consider the philosopher of nature, again, and suppose that he is wholly closed to an intuition of being. Our practitioner, accordingly, limits his philosophical reflection to the concept of being at work in just such scientific observations, though scientists are increasingly more interested in quarks than in "digs" and the diet of scientific observations would range over all of the natural sciences. Said natural philosopher, one worries, might readily come to think that he is adding to our knowledge of what is real in some final and decisive manner. But our practitioner would be badly mistaken. Because his grasp of "to be" is univocal, his philosophical vision can only occlude an authentic metaphysics.

Here an example shows how much is at stake. Dialectical materialism is a "worst case" philosophy that occludes what is real, and it does so at a huge moral cost. Absent an analogical grasp of "to be," its dialectic denies a metaphysics of being. While dialectical materialism is now *passé*, there is no lack of new materialisms. A confused evolution-

²⁵ *Ibid.*, 338.

nary worldview, both metaphysically constricted and value-denying, is now regnant. Whether old or new, materialism encourages an obsession with *homo economicus*. The person, so construed, is a rational decision-maker given over to activity understood only in its transitive dimension. Such a person is closed to the contemplative; having displaces being.

When a whole culture embraces this reductivist view of the person, two pathologies emerge. First, the intuition of being itself becomes progressively more endangered. More than one cultural critic has observed that, increasingly, our metaphysical promise seems greatest when we are children! For all too soon we find that the wonder and the intuition of the child collapses into the quest for comfort and the perfecting of technique that dominates a world that is too much with us.

Second, for many of us the capacity to think about God as *ipsum esse per se subsistens* becomes ever more problematic. But, when we cannot think of God in terms of *esse*, we fall much more readily into the worship of the idols of the day. In regard to this incapacitation for natural theology, Maritain reminds us that, rightly understood, natural philosophy leads beyond itself. “[A]t the end of its search, it is led, as was already the case for the Physics of Aristotle, to posit the question of the First Cause and to make it clear that in considering nature, human reason ... comes to the question of the existence of God.”²⁶

To be sure, when the philosophy of nature rejects its classical legacy and painfully tethers itself to a narrow empiricism, it seems likely that at least some will look for a way to overcome the resulting materialism. But unless we can move from a narrow univocal language of being to an analogical language of being and, beyond that, to an analogy of being, it will be difficult to escape from a culture turned in on itself.

In such a culture it is hard to understand, much less honor, the dignity of the person. It is equally hard to avoid the conclusion that the human being is nothing more than a sophisticated computer destined to be replaced by the product of its own hands. How, then, might the intuition of being, of the *actus essendi*, help transform our regnant ethos? Thomists think that being and the good, as transcendentals, are

²⁶ Ibid., 338.

convertible. In light of this, an appreciation of the *ratio entis* leads to an appreciation of the *ratio boni*.

From this perspective, to grasp the *esse* of the person is to grasp the dignity of the person. In grasping the *esse* of the human person, we grasp the most revealing analogate of the analogon that is *ipsum esse per se subsistens*. To know the human person through an intuition of being, and to be alive to what the personal *esse* suggests about all that is real, is to find a dynamic center for a culture of life. John Knasas brings together the elements of this dynamic center.

Human intellection and volition engender and presuppose an especially intense presence of the analogon. Thanks to these two activities, the human possesses the *ratio entis* in heightened fashion. In the human intellector and willer the analogon burns more brightly than in granite, a cow, daisy, or pine tree. A realization of this anthropology invests the human with a demand for respect and solitude and so initiates ethics.²⁷

But there is still more. What of the rest of the cosmos?

Through an intuition of the human *esse*, we can best appreciate a cosmos in which every entity, Maritain writes, exercises a “sovereign activity *to be* in its own way,” an independence which is “*implacable*.”²⁸ Yet we transcend the material cosmos; in doing so, we can bring it with us as we turn to the analogon that we uniquely image. Thus, W. Norris Clarke urges that we “take up the whole material world into our human consciousness, using both sense and intellect, bring it into the light of self-consciousness in us, and offer it back to the Source whence it came with acknowledgment, gratitude, love for this gift.”²⁹ If, as St. Paul teaches, “the whole creation has been groaning in labor pains until now” (*Romans* 8: 22), ought we not put ourselves in solidarity with it?

²⁷ John F. X. Knasas, *Being and Some Twentieth-Century Thomists* (New York: Fordham University Press, 2003), 248. Knasas’s book is a brilliant *tour de force* from which I have learned a great deal.

²⁸ Maritain, *Approaches to God*, 19.

²⁹ Clarke, *The One and the Many*, 306.