

The Argument from Normativity to Supernature

Part 3: Rational Normativity

*“Where then does wisdom come from?
Where does understanding dwell?
God understands the way to it
and he alone knows where it dwells.”
Job 28:20, 23*

I. Framing the Metanorm of Rationality

In Part 2 of this series I made much of distinctions. Under consideration is a large distinction between nature, defined as the world accessible through the methods of science, and another side of reality that C. S. Lewis dubbed "supernature." If nature alone is real then God is excluded to the extent that we cannot detect him with instruments, confirm his existence through experiments, or obtain him as the solution to an equation. If supernature is as real as nature, then the idea of God is impossible to exclude and difficult to avoid.

To get at this large distinction we have been examining smaller ones. We have seen that the distinction between moral rightness and wrongness does not seem to be natural. But a great many distinctions are, such as that between adaptive and maladaptive behaviors of living things. Think of other distinctions that we can confirm with our senses or with instruments: up/down, hot/cold, near/far, transparent/opaque, magnetic/nonmagnetic, acidic/basic, conductive/insulating, radioactive/nonradioactive.

Take the second distinction listed above, hot/cold. We have no need to confirm it, but when teaching children we might encourage them to fill containers with hot and cold water, gingerly feel the difference with their fingers and then test the effects of each on a thermometer. Although a child will bring to this experiment what he or she already knows and has been led to assume, the experiment will still be the kind of confirmation by which people build up a scientific picture of the world. To accomplish it the child, like any scientist, must tentatively conclude that the felt difference in the two volumes of water is related to the values registered on the thermometer. And this conclusion must be arrived at a certain way---correctly as opposed to incorrectly.

Relating felt and measured temperature would seem a far cry from, say, the mathematical depths and baffling twists of quantum theory. But quantum theory is confirmed, among other ways, by using instruments to detect the spin of subatomic particles, plotting the relative occurrence of spin in different directions, and from this information arriving at conclusions. Whether addressing simple or sophisticated distinctions scientists depend upon arriving at conclusions in ways that are correct as opposed to incorrect.

What is true of scientists is true of the rest of us in the course of daily life. Imagine that a woman is on the phone talking about events in her neighborhood and about the restless night she just spent. The woman says to her friend, "There's a moving van parked in front of that house across the street and the 'For Rent' sign that was in the yard for months is gone. Somebody must have finally rented that old place!" Later in the conversation she complains, "I didn't sleep well. I made the mistake of watching *Scream* alone just before I went to bed. All night long I thought that every creak was a maniac ready to hack me to death!"

If we were to ask the woman after she hung up the phone whether she believed that intruders actually had been in her house the previous night, she would deny it. At the same time, she would stand by her conclusion that the house across the street had been rented. The two inferences can be summarized: (1) the rental sign was gone and a moving van was in front of the house, therefore the house likely was rented; (2) the movie she watched was frightening, therefore the noises in her house likely were caused by intruders. The woman recognizes the first inference as correct and the second as incorrect.

In the previous essay I introduced what I call the Metanorm of Morality, stating that there are morally right as opposed to morally wrong ways for people to think and behave. Here I propose a new statement, which I call the Metanorm of Rationality:

There are correct as opposed to incorrect ways to arrive at conclusions.

I use "arrive at conclusions" to exclude non-logical thought processes such as free association as well as the formation of beliefs by simple recognition without logical steps of reasoning.

The Metanorm of Rationality has to do with how we discern truth, but conclusions are not true just because they are arrived at correctly or false because they are not. A person can reason correctly but reach a false conclusion because of a lack of accurate or complete information. On the other hand, sometimes people reason badly over a question but by a sheer fluke arrive at the right answer. Nevertheless, valid reasoning tends to correct itself and progress in the direction of the truth while fallacious reasoning tends to lead away from it.

I've seen it claimed that the correctness/incorrectness of rationality is part of the rightness/wrongness of morality, but I cannot agree. When we realize that we have lost our temper or been less than truthful, we feel guilt. But embarrassment or frustration rather than guilt is what we feel when we have made a mistake in reasoning. We only feel guilt over bad reasoning when it accompanies a specifically moral failing. Thinking in morally right ways as opposed to wrong ones depends on what we choose to think about and the emotions we give reign to in the course of thought. Someone anxious to help is his neighbor will to some degree think logically about how to do it, but so will someone bent on harming his neighbor.

Remember that I referred to the statement about rightness/wrongness as a "metanorm" because it embraces diverse moral norms such as "lying is wrong" and "murder is wrong." The same is true of the Metanorm of Rationality, except that it encompasses logical norms such as the laws of thought and the rules of inference. We use these norms every day without formally defining them. For example, the law of non-contradiction says that a statement cannot be both true and false at the same time in the same way. Philosophers and logicians have called into question certain norms of logic, but in doing so they are not denying correctness any more than someone who denies that, say, profanity is wrong is necessarily denying all moral distinctions.

If the Metanorms of Morality and Rationality are different in some respects, they have in common that we cannot confirm them from observation. To appreciate why correctness cannot be confirmed, we have to sketch what naturalism implies about reasoning. Conclusions are arrived at in the mind. But but naturalism must in one way or another identify the mind with brain processes. If nature is all of reality, there is simply nothing else the mind could be. It is after all beyond doubt that astoundingly complex neurological responses in the brain are a necessary condition of rational thought, at least for human beings.

Brain processes consist of chemical reactions taking place in and between neurons. Given naturalism, the brain generates conclusions just as it generates reflexes such as blinking and shivering, and just as bone marrow generates blood cells and the liver generates bile. All are chemical processes, differing only in detail and complexity.

II. Intentionality, Confirmability, and Corrigibility

If the properties of conclusions were the properties of reflexes and substances, confirming the naturalistic analysis would be straightforward. But conclusions have a property called *intentionality* that reflexes do not. In spite of the appearance of the word, intentionality does not refer to having intentions but to the property of being about something. For example, the conclusion that someone is at the door (because we hear them knocking) is *about* the person at the door or at least about the possibility that a person is there. Assuming that you are thinking as you read this, your thoughts are about what you are reading—or about something else if your mind wanders—and therefore your thoughts have intentionality.

Physical objects, events, and states are not about anything, they simply exist or occur. The apple in the fruit dish is not about anything, nor is the sound of rain on the roof, nor is the temperature of the air around you as you sit reading. Books and articles are “about” things only because they represent the thoughts of the people who wrote them, not because paper and ink or electrons forming an image are in themselves about anything.

Science is in the business of confirming what things are, not what they mean or what they are about. Changes in the weather, changes in the landscape, changes in the positions of the planets, and chemical changes in the organs of living things *occur* but do not *mean*, nor are they *about* things.

This is not to say that, potentially, a scientist monitoring electrochemical activity in a person’s brain could not conclude, based on that activity, that the person was thinking about a particular topic. My point is that if the scientist said that the chemical activity itself was “about” the object of thought, he would not be making scientific sense. He would not be using a description that relates the chemical reactions to the to object of thought by means of physical properties.

Authorities in cognitive science and the philosophy of mind have reached no consensus on the vexing question of how to naturalize, much less confirm, intentionality. Since intentionality is fundamental to rational thought, rationality itself therefore seems to defy confirmation. However, there is an even deeper reason why reason must fall outside nature. Look once again at the Metanorm of Rationality:

There are correct as opposed to incorrect ways to arrive at conclusions.

Ignoring the issue of intentionality, this statement cannot be confirmed. In order to confirm it, we would have to make observations and from these conclude that the statement is true or probable. And we would have to arrive at that conclusion correctly. But in doing that we would be assuming that there are correct ways of reaching conclusions, which is the very thing we are trying to confirm. A procedure that assumes what it purports to confirm suffers from a defect called *viscious circularity*.

Suppose someone offers us information and we ask them, “How can I confirm that what you say is true?” We would not be satisfied if they answered, “You can just ask me and I’ll confirm it.” Obviously, we cannot trust the person’s “confirmation” any more than their original information. In the case of the Metanorm of Rationality, evidence for it cannot be seen as such except on the authority, as it were, of the Metanorm itself. So the Metanorm of Rationality cannot be confirmed. (Fortunately, this is not a practical difficulty because thinking humans are eager to put faith in the Metanorm apart from confirmation.)

We can approach the issue of confirmation from another angle. In order to qualify as a scientific hypothesis, a proposition must be *corrigible*, that is, it must be capable of disconfirmation. We must be able to test a hypothesis or theory, but testability is lacking if no observation or analysis could conceivably call the theory into question. This standard, too, excludes the Metanorm of Rationality. We might doubt the Metanorm at a glance, but to conclude that the Metanorm is doubtful assumes correct ways of reaching conclusions.

Arguments, insofar as they are invitations to arrive correctly at conclusions, assume the Metanorm of Rationality. We might well use the phrase, “Assuming that there are correct ways to arrive at conclusions,” when presenting an argument. Confirmation of the Metanorm would amount to saying, “Assuming that there are correct ways to arrive at conclusions, thus and so implies that there are correct ways to arrive at conclusions.” It’s a bit like throwing a rope ladder into the air and trying to climb it before it falls.

Casting doubt on the Metanorm would mean saying, “Assuming there are correct ways to arrive at conclusions, thus and so implies that there are probably not correct ways to arrive at conclusions.” This is like trying to dig away the patch of ground directly underneath your feet while you are still standing on it.

The Metanorms of Morality and Rationality are by no means the only statements that lack confirmability and corrigibility. They can be placed in the company of the claims that words have meanings and that some statements are true. Here, in addition, are some less exalted examples:

The square root of two is a darker shade of blue than Schubert’s unfinished symphony.

There are life forms that humans are incapable of ever recognizing as such.

The key of B-flat minor weighs less than the distance between Mercury and Venus.

The universe is passively conscious.

The universe came into being an hour ago with all signs of age, including memories in human minds, whole and intact.

Notice that in being either uninformative, uninteresting, or both, these statements contrast with the

Metanorms. Moral issues are of passionate interest and inspire study and debate. The reality of correct versus incorrect ways of reaching conclusions, which is our particular interest here, not only forms the basis of everyday decisions, it is elaborated in the disciplines of formal and applied logic, belief theory, and decision theory.

III. A Naturalistic Origin of Reason?

What does it tell us that we can neither confirm the Metanorm of Rationality, nor cast doubt on it, nor dismiss it as unworthy of interest? One implication is that the naturalistic model of the evolution of human reason cannot be true. This is surprising because the adaptive value of reason seems spectacularly obvious. By means of reason humans have developed methods and machines that have garnered food in abundance. By it we have subdued predators and many diseases, and populated diverse environments from the Gobi desert to the islands of the Pacific and from the slopes of the Andes to the Rift Valley of Africa. With their reason men and women have rearranged the earth they live on and charted the immensity of the universe.

The adaptive utility of reason, while undeniable, does not by itself demonstrate that reason falls within nature. It does not outweigh the unconfirmability and incorrigibility of the Metanorm of Rationality. Hypotheses concerning evolution, like other scientific speculations, must be corrigible and confirmable. Further, a proposition that is confirmable cannot be equivalent to one that is not; confirmability must be an objective property that a proposition either has or lacks.

An attempt to capture the value of reason in evolutionary terms would be the following statement (or a one very like it):

Different chemical processes in brains can generate different behaviors, which have greater or lesser adaptive value in particular environments.

This claim is corrigible and has been abundantly confirmed by observations that bodily functions are often impaired when the brain is injured, for example. The statement qualifies as a hypothesis and draws a potentially natural distinction. But it does not mention correctness in arriving at conclusions. To be incorporated correctness would have to be confirmable.

We cannot equate propositions like the one above about brain processes with the Metanorm of Rationality, so we are up against a dilemma. To fit rationality into nature we must capture it with a confirmable hypothesis, but the key distinction in rationality is in principle unconfirmable. Therefore in principle rationality falls outside of nature.

Secularists sometimes invoke computers to naturalize reason. Can't we say that computers arrive at conclusions? And aren't computer processes based on the laws of electromagnetism? Manipulation of symbols by computers does not require awareness of either of the meanings of symbols or of logical relations between them. Yet it is only to the extent that human minds are aware of meanings and logical relations that they can arrive at conclusions correctly. Put differently, the level of reasoning that can be called "arriving at conclusions" requires consciousness and few people would argue that computers are conscious.

We already have good reason, then, to doubt that computation can be identified with arriving at

conclusions. Just as critically, the laws of electromagnetism and principles of electronic and software engineering are confirmable, whereas the Metanorm of Rationality is not.

The fact that is staring us in the face seems almost too simple. Can it be as cut and dried as that? If reason does in some sense lie outside nature, why and how does it depend upon natural processes in the brain? What of importance is implied by saying that reason is other than natural? Before I address these questions, let's go back and probe the preceding argument further.

IV. Strategies for Naturalizing Reason

The correctness/incorrectness distinction has been recognized by human beings for thousands of years, but knowledge about the brain as the organ of thought dates back only a few centuries. Let's grant for the moment that somehow "correctness" is a property of human brain chemistry in relation to the physical environment. Without advanced knowledge of neurochemistry and its effect on behavior humans could have no more than a vague idea of this property.

To draw a comparison, humans have long had some knowledge of the digestion of food. But the causes and physical details of "good digestion" versus "bad digestion" had to wait on medical science. Before that, humans knew little more than that sometimes their bellies ached and that the quantity and quality of their food had something to do with it. Secularists might conclude that because neurology and cognitive science are in their infancy our notions about correctness/incorrectness are similarly vague and prone to error. In our ignorance it would be easy for us to misjudge that correctness is unconfirmable. Exactly how we are making this mistake will only become clear in the light of scientific advances.

Unfortunately for any such theory, existing scientific knowledge of the brain is the product of our rational intuition. Only misbegotten science can issue from a sense of correctness so unreliable that it cannot tell us what is confirmable and what is not. Even the expectation that science will continue to add to our knowledge of the brain is no better than our current ability to distinguish between correct and incorrect reasoning.

When they argue that experiment and observation take precedence even over our reasoning processes, secularists are recommending a conclusion arrived at a certain way—an inconsistency that we ought to call to their attention. Reason is what gives the scientific method its credentials. Without the ability to arrive at conclusions correctly we could neither frame experiments nor interpret observations.

Another way to try to keep the correctness distinction within nature trades on the fuzzy boundary between beliefs and conclusions. Many beliefs are formed without a step-by-step logical process. Imagine that a man walks out the front door of his house to pick up his morning paper and hears a sharp, loud sound from down the street. He casts a worried look in the direction of the noise, which he thinks was a gunshot. Then he sees an old car with smoke coming out of the tail pipe and realizes that the noise was an engine backfiring.

We would not hesitate to say that the man at first "believed" he had heard a gunshot. But the belief was arrived at too quickly to represent a studied, logical answer to a question. We might even say that the man "concluded" afterward that the sound was an engine backfiring, but this too was a momentary judgment rather than the result of pondering logical alternatives. Though the carefulness and precision

of logical thought played a small role, if any, in forming the man's beliefs we would describe his responses as rational.

If we were to analyze many such cases we would be forced to acknowledge the absence of a definite boundary between quick judgments and conclusions. Even if we find that correctness in arriving at conclusions is unconfirmable, it is not obvious that spontaneous beliefs can be analyzed the same way. Somewhere in the gray area between spontaneous justified beliefs and logical conclusions might there not be room to see reason as natural?

As an illustration of the flaw of this argument, imagine that we are trying to determine whether trout can migrate over dry land. The streams that are home to trout have no definite boundaries. Where a trout stream ends and the bank begins is constantly in flux, not just with seasonal changes in runoff but due to the fluid dynamics of moving water. The indefiniteness of the borders of trout streams does not, however, argue for overland migration of trout. The anatomy of trout confines them to water. Somewhere near its edge a trout stream gives way to dry land that trout cannot traverse.

No matter how blurry the line between spontaneous beliefs and conclusions arrived at logically, both categories contain obvious instances. To whatever extent a belief is a conclusion arrived at correctly it entails awareness that there are correct versus incorrect ways of arriving at conclusions. And the distinction between correctness/incorrectness remains unconfirmable. It could be that the influence of rational normativity encroaches on nature by degrees, but it encroaches nevertheless.

Recently Mark Colyvan has attempted to shoehorn the normativity of reason into nature.¹ Dr. Colyvan is an authoritative voice in contemporary philosophy, so his effort is instructive. He declines to focus on the apparent evolutionary advantage of reason, noting that even humans who are not good at rational thinking survive. He could get more mileage out of the concept of selection if he pursued the obvious question of whether poor reasoners survive due to a deficit of intelligence or in spite of it. In the end it makes no difference because, as we have seen, the evolutionary explanation suffers from a deeper problem.

The solution Colyvan settles on is unflinchingly deferential to naturalism. As rational norms Colyvan proposes our best scientific theories. He broadens "scientific" to include any area of study that has what he considers to be good empirical and theoretical support. He specifically includes philosophy and logic, but soft sciences such as psychology and sociology might qualify as well. It appears that theology, unlike philosophy, lacks the proper credentials.

Rejecting religious or mystical explanations in favor of scientific ones, again broadly construed, is normative for Colyvan. It is an unquestionable standard that not only keeps reason within nature but actually taps philosophical naturalism for its normative force. While admitting that naturalism commits us to "norms" that change as present theories are replaced by future ones, Colyvan has formulated what serves for him as a metanorm: thought is rational to the extent that it accords with the best available scientific theories.

Besides failing to provide us with the means for determining which scientific theories are best, Colyvan's project founders by including philosophical arguments in science. As a result, he casts his net either too far or not far enough. Consider the argument against naturalism that I am presenting here. In Colyvan's view it is disqualified as a respectable theory merely because it fails to endorse naturalism, before its logical virtues or failings are even considered. On the other hand, construing Colyvan's metanorm broadly enough to allow consideration of an argument against naturalism makes it vacuous.

If naturalism extends to whatever conclusions human minds arrive at correctly, we have arrived again at the Metanorm of Rationality and its unconfirmability.

Colyvan says that we must judge naturalism by its fruits, by which he seems to mean academic knowledge and technology. He implies an unwarranted move from, "Science is a powerful tool of investigation and explanation" to "All that is real can be investigated and confirmed by science." The second statement cannot itself be confirmed by scientific means. Admittedly, by bringing so much under the heading of "science" Colyvan makes it difficult to know for sure what the fruits of science include.

V. Impenetrable Boundaries

We have tested our original argument and found that it is not easily overturned. The distinction captured by the Metanorm of Rationality resists all efforts at confirmation and for that reason does not fit into nature. The distinction between correct and incorrect ways of arriving at conclusions, like the distinction between right and wrong ways of behaving, is supernatural—provided that it is real. But how do we know that it is real?

If you did not take the Metanorm of Rationality to be real you would not be attending to this article, nor would you choose to reason about any question at all. We seem to have little choice but to put faith in it. Evidence must be interpreted, must be reasoned from, and that cannot happen apart from faith in the Metanorm of Rationality. Since the Metanorm is what turns raw perceptions of the world into evidence we can never see evidence as supporting it.

Scientific knowledge, as I have already observed, is a fruit of correctness in reaching conclusions. If correctness is unreal, so are the purported insights of science. To doubt the reality of the foundation of a house is to doubt the reality of the house itself. But this is no confirmation. As soon as we say, "Scientific knowledge is real, therefore the correctness distinction must be real," we are arriving at a conclusion in a what we take to be a correct manner, thereby assuming what we need confirm.

Likewise, the inverse bit of reasoning, "If correctness is illusory, science must be illusory," assumes that correctness is real. We must assume the possibility of arriving at conclusions correctly in order to reflect on what we imply by calling something an illusion. Mustn't it count in favor of the Metanorm of Rationality that that apart from it fact and falsehood, possibility and actuality, the imaginary and the concrete run together like watercolors in a downpour? For the upteenth time, it only counts in its favor to the extent that we assume it.

At this frontier we cannot achieve static resolution. Our thought must oscillate with the tension between the impossibility of doubting rationality and the impossibility of confirming it. As we attempt to draw close to it, it retreats from us; when we try to turn away from it we find ourselves facing it once again.

The elusiveness of reason is reminiscent of what scientists encounter at the frontiers of physical reality. The Special Theory of Relativity, for example, says of two objects moving with respect to one another that each becomes shorter relative to the other to a degree dependent upon velocity. How can two objects each shrink in comparison with the other? To an observer moving along with the first object, the second object will shorten, and vice versa. Neither perspective, or frame of reference, has a greater claim to reality than the other. The descriptions of foreshortening in reciprocal frames of reference

compete conceptually but complement one another mathematically. The mutual relativistic relations of comoving objects can be diagrammed and computed but not reconciled in a single mental picture.

In quantum theory, the tiniest physical constituents, such as photons and electrons, exhibit mutually exclusive properties of waves or discrete particles depending upon the method of measurement the observer chooses. Again, the wave and particle accounts are conceptually opposed but mathematically complementary. We can generate statistical probabilities of the behavior of objects of subatomic size by treating them as if they have both particle and wave characteristics, but we cannot picture in our minds an object that straddles the divide between a particle and a wave.²

It is unlikely that any new scientific model of physics will eliminate the conceptual tensions we encounter in relativity and quantum theory. It seems to be an indicator that we have reached a crucial boundary of reality when all efforts to eliminate this tension fail. I have called attention to it here because, as we have just seen, analysis of rational thought leads us to a similar boundary. The tension or strange symmetry at the heart of reason, however, concerns mental rather than physical processes. The boundaries of the physical and the mental have a certain kinship in spite of their distinction.

I still have to consider questions about what it means to say that reason is supernatural and how it relates to the question of God. That I will do in the next essay in this series.

- 1 “Naturalising Normativity,” in D. Braddon-Mitchell and R. Nola (eds.), *Conceptual Analysis and Philosophical Naturalism*, MIT Press, 2008, chap. 13.
- 2 The science and philosophy website thebigview.com, in its section on the history of quantum theory, relates a conversation between Albert Einstein, the discoverer of relativity, and the younger physicist Werner Heisenberg, one of the architects of quantum mechanics. Einstein, who rejected quantum mechanics, demanded to know of Heisenberg how he could believe that there was nothing more to the reality of the electron than what can be measured. Heisenberg responded that relativity theory had its own version of this assumption (with its own resulting paradoxes). Impishly Einstein replied that if even if he himself had employed such reasoning, it is still nonsense.