Natural Unity and Human Nature

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by

Manuel Valencia Cabrera Jr.

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Philosophical naturalism is grounded in a commitment to natural integration – to understanding the nature of anything in Nature against the background of natural unity: i.e., in terms of our overall picture of Nature and how it hangs together. But what's required for natural integration – specifically, of human mind and agency?

In Chapter 1, I consider one common kind of answer to this question – physicalism. Physicalists think the cost of natural integration is impoverishing the language of nature – the terms and concepts used for natural integration. This is the entry point for human exceptionalism: the worry that the repertoire of physical terms and concepts is simply too impoverished to account for human mind and/or agency. I argue physicalism is mistaken by sketching and defending a view I call Spinozism. For the Spinozist, any truth concerning natural beings (a) pertains to their nature, and (b)
concerns Nature as such. Thus, the language of nature is ordinary language, and the expressive resources available for naturally integrating human life include any we need to express any truth about it. Nevertheless, Spinozism embraces natural unity and natural integration – albeit in different forms than those embraced by physicalists.

Chapter 2 is devoted to articulating what I take to be the most serious objection to Spinozism – the objection from explanation. According to this objection, the Spinozist neglects the role of explanation in natural integration. That is, we can only understand natural unity by formulating a systematic physics – i.e., a unified explanatory framework capable of accounting for anything in Nature. And since the repertoire of terms or concepts used to formulate a systematic physics is likely to be relatively impoverished, the language of nature is as well. I go on to sketch the fundamental metaphysical commitments of this view – what I call explanatorism.

In Chapter 3, I respond to the objection from explanation by arguing that it involves an illegitimate projection of epistemic features of explanation onto our metaphysics, and close by contrasting the Spinozist's view concerning the unity of Nature and explanation with the explanatorist's.
The dissertation of Manuel Valencia Cabrera Jr. is approved.

Pamela Hieronymi

Andrew Hsu

Michael A. North

Joseph Almog and Barbara Herman, Committee Co-Chairs

University of California, Los Angeles

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To my father – my namesake, benefactor, and friend
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Bibliography
VITA

C. Phil in Philosophy, UCLA, 2006

M.A. in Philosophy, UCLA, 2004

B.A. in Philosophy & English Literature, UCLA, 2001
A great many debates in contemporary metaphysics address the perceived problem of fitting human life into Nature. The starting point of these debates is the notion that human beings are, in an important sense, exceptional things. For example, unlike many other inhabitants of the cosmos, we have cognitive lives in which consciousness and intentionality play a central role. More than this, our cognitive lives are strikingly different from those of any other creature we know of – a fact often remarked on by saying we are rational creatures or thinking things. Or, many of the things we do are fundamentally unlike what trees, stones, and storms do: we act intentionally; more than this, our intentional actions seem unlike those of other animals in many respects – manifestations of our thought, rationality, moral responsibility, or freedom.

We might express the question that such qualities often inspire like this: given the

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exceptional character of human life – specifically, of human thought and action – can we understand human beings as just more creatures of Nature? And if so, how? By the word "creature" here, I mean, not living thing, but rather something like the word's theological sense – without, that is, its theistic connotations. A creature of Nature is a dependent being – something that is thoroughly dependent on Nature, both for its existence and for what it is.

The question of whether human beings are creatures of Nature is usually posed in a skeptical spirit. "How could we be?" philosophers often ask, harboring the suspicion – alarming or comforting, depending on your temperament – that to maintain a robust conception of human nature, we cannot. The suspicion here is that human beings are so to speak uncanny creatures, beings who don't quite belong – not so much citizens of Nature as strangers to it, deposited in a foreign land into whose general population we can never be fully assimilated. It’s a suspicion that frames the terrain on which many debates about the metaphysical status of human beings take place. It’s frequently presupposed, that is, that any account of human nature must confront this suspicion, either by embracing or undercutting it. This terrain of debate – what I will call the philosophers’ paradise – is one with which we are all familiar. In fact, very often it hardly occurs to us to work anywhere else. When we work within the philosophers’ paradise, we frame questions about human cognitive and practical life in terms of the gap between the mental and the physical. And, with the skeptical suspicion in mind, we brandish strategies either for closing the gap, or for showing that it can’t be closed. ²

Now, a good working principle for philosophers to keep in mind is this: don't allow

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² When I speak here and throughout of skepticism, I don’t have in mind radical skepticism, but garden-variety doubt. Thus, the skeptical suspicion is just the suspicion that the gap between the mental and the physical can’t be close. However, cf. pp. 18-19 for an important connection between what I’m calling ‘the skeptical suspicion’ and Cartesian skeptical doubt.
yourself to think we can get philosophical problems 'on the cheap.' In other words, the first question we should ask when faced with a proposed philosophical problem isn’t "How do we solve it?" but rather "Why does this strike us as a problem to begin with?" What I’ll attempt to do in the present chapter is to apply this working principle. How does the skeptical suspicion – namely, that we’re uncanny creatures – arise in the context of contemporary debates in metaphysics? And, are we entitled to it?

It’s important to see why the skeptical suspicion is a ripe candidate for these questions. This suspicion ought, at least prima facie, to strike us as rather strange; and, we should never allow ourselves to become imbedded so deeply in familiar philosophical conversations that we lose sight of this strangeness. For the philosophers’ paradise is a quite different territory from the common ground of ordinary life.

The most basic conception of Nature we have is something like 'the world around us.' And, before any theorizing sets in, it’s exactly there where we witness human lives beginning, unfolding, and ending. We witness human beings coming into existence all around us – begotten not just from other human beings, but also from the environmental conditions that make our self-propagation possible. And, we experience the courses of our lives – including what is most exceptional about them – as further developments in the history of the world at large. Among the episodes that make up my life as I lead it in my particular corner of cosmic history are episodes of thinking and action, each of them arising from my own past history and the circumstances in which I find myself.

These observations don’t of course amount to a refutation of the skeptical suspicion. However, they do leave us with a question: how exactly did we get from this common ground
position to the skeptical suspicion, and by this route to the philosophers’ paradise? Philosophers usually presuppose that this kind of skeptic has a central place at the debate table – that accounts of human nature must respond to her. However, if we simply begin our investigations of human nature with this dialectical presupposition in place, we are helping ourselves to something that needs to be defended. In the common ground position that is our default setting, this presupposition is simply not in place. In fact, quite the opposite: the suspicion that we are uncanny creatures will seem strange and exotic, something that the skeptic owes us reasons for taking seriously, rather than something of which we owe her a refutation.

Thus, the apt question really is: what are the grounds for her suspicion, and is she entitled to it? My task in this chapter will be to offer an answer to both of these questions. To answer the first, I will attempt to diagnose the sources of the skeptical suspicion as I believe it has operated in recent metaphysics. Then, to answer the second, I will argue that, given how the skeptic arrives at her suspicion, she is in fact not entitled to it; and thus, we have no reason to pitch our accounts of human nature as responses to it. If I’m right, we will be justified therefore in leaving behind the philosophers’ paradise and returning back to the default setting – the common ground position from whose vantage point human beings are creatures of Nature through and through.

1.1: The Requirement of Natural Unity

The first thing to notice is that the problem philosophers often think is posed by human thought and action is a very special one. We don’t, for example, get a special problem simply from the observation that human beings are exceptional creatures. By itself, this is just one instance of the general phenomenon of natural diversity. If you can re-awaken a sense of awe at natural diversity, the stone by the side of the road is just as exceptional. Consider it the way a
small child might: how unlike everything else this strange little thing is! And this reaction isn't the result of stupidity or simple-mindedness. It's not only sustained but heightened on careful examination of the stone: this is the awe of the natural scientist. The more we examine it, the more it really seems quite unlike anything else in Nature. Individual difference is, so to speak, the universal condition.

However, I do think that there is a clue here to the underlying motivations that lead, eventually, to the skeptical suspicion. The stone is exceptional, yes. But at the same time, here it is, in an equally obvious sense just another being in the world, on a par with everything else. If we're going to understand it and the natural world that contains it, we'd better be able to comprehend it as yet another way of Nature.

I will call this the requirement of natural unity – a dual requirement. What’s present in any natural locale – a solar system, toothpaste tube or human body – looks very different from what’s present elsewhere. But to make sense of what it is – its nature – we must situate it against the background of natural unity. We must understand it in terms of our overall picture of Nature as a whole. We must, in other words, naturally integrate it. Further, this isn’t simply a requirement on the proper understanding of its nature, but also of the nature of Nature as a whole. That is, to the extent that we fail to naturally integrate something in the world around us, our grip on Nature as a whole is incomplete – just as our grip on the nature of my human body is incomplete if it leaves the place of my heart or my nose in that body a total mystery.

Now, the requirement of natural unity is nothing more exotic than what we find at work in natural science. Suppose we see some carbon behaving in a way that is incompatible with our current understanding of carbon. In response, we might think our carbon-theory is flawed; or,
that we made a mistake gathering observations and drawing conclusions from them; or even that this stuff isn't carbon at all. But concluding that carbon just happens to work differently in this locale would be a mistake. It would amount to giving up on understanding what carbon is, conceding the existence of supernatural carbon. And it would amount, just as much, to leaving open a gap in our understanding of Nature itself. Ultimately, our accounts of both carbon and Nature as a whole will be satisfactory only if they tell us what unity there is among the diverse manifestations of carbon, and between carbon and the diversity in Nature as a whole.

The best scientific accounts we have of carbon help us do just that – by telling us, for example, that carbon atoms are made up of ingredients that in different combinations make up every atom whatsoever, and why something composed in just that way behaves as it does in varying circumstances. In doing so, they further the project of naturally integrating carbon. This is one of the reasons we find them satisfying.

What happens, though, when we think of the requirement of natural unity as applying to ourselves? When we begin from our default setting – the common ground position – it seems we must. Human life, just like carbon, strikes us as something firmly imbedded in the world around us. And so, it would seem that to get from this starting point to an understanding of what we are requires just what is required for carbon: the project of natural integration.

What I will argue first is that this is precisely what inspires the skeptical suspicion. What the skeptic suspects, I will suggest, is that this project can’t be accomplished for human beings. And, it’s this suspicion that drives her, as well as those philosophers who wish to respond to her, from the common ground position into the philosophers’ playground. To understand this, we must understand what she thinks this project entails, such that it seems to her to be doomed. In
order to make this clear, I will consider our suspicious skeptic’s leading opponent in contemporary metaphysics: physicalism. This might seem at first to be a strange strategy: why consider the skeptic’s opponent in order to understand her? I’m going to proceed in this way because, as I will argue, the skeptic and the physicalist precisely have a shared conception of what natural integration demands of us. It’s just that the skeptic thinks that meeting these demands comes with too heavy a cost, whereas the physicalist doesn’t.

1.2: Physicalism and the Language of Nature

The simplest statement of physicalism about $x$ is this: $x$ entirely is or depends on the physical. But what kind of view is this meant to express, and why do we find it attractive when we do?

We can see the beginnings of an answer by considering the appeals to physics that underlie the modern philosophical notion of the physical. Why should physics occupy a privileged role here? It’s because physics, as classically conceived, is the science of Nature as such. This is what is behind the traditional distinction between physics and the special sciences. While sciences like biology, anthropology and geology deal with particular regions of Nature, physics aims to understand Nature as a whole. It encompasses all the special sciences in the sense that its gaze ranges over everything that any of them brings into view. To say that $x$ is thoroughly physical is to urge us to understand it from the point of view of physics. But this is simply to understand it from the point of view of its place in Nature as a whole. Thus, claiming that everything in the world around us is thoroughly physical, or depends for its nature on what is, is giving expression to the requirement of natural unity.

However, this doesn’t yet tell us exactly what conception of natural integration lies at the
root of physicalism. Here, we find a way of understanding the requirement of natural unity that has been shaped by the development of the empirical science of physics—specifically, the methods and explanatory ambitions this science has adopted in the modern period. Physicalism has its sources in a certain image of Nature that early modern physics originally gave us—what I’ll call the physical image of Nature. I’ll consider first what this image is, and then, exactly how I believe it has inspired the physicalistic conception of natural integration.3

For our purposes, what’s significant about this image is that it’s an image of Nature as uniform—in important respects, the same throughout. There’s a structure operative everywhere in Nature—call it ‘the natural order.’ The notion that Nature is uniform in this sense is inspired by the fundamental role that natural laws play in the explanations characteristic of modern physics. An account of these laws precisely specifies a structure present at every natural locale—planets, living things, thinking things, etc. It gives us an image of Nature in which Nature’s uniformities are starkly foregrounded.

However, such an account has another feature that is important for understanding the physical image of Nature. When deploying this image, we understand the uniform natural order as what I will call a transcendent one. A transcendent order determines ahead of time, so to speak, the manifestations of natural diversity. That is, to believe in such an order is to think that any natural phenomenon—any event, kind, property or object—instantiates a structure that

3 As will become clear in what follows, not all features of the physical image of Nature are essential to its role in inspiring physicalism. What I intend to give in the description that immediately follows is, as I will make clear, a historical jumping-off point for a certain doctrine that is, I believe, essential to modern physicalism: in the terms I will introduce in what follows, the doctrine that the language of nature is a relatively impoverished one. Although the picture of Nature delivered to us by modern physics in its early stages inspires what I am calling the physical image of Nature, I don’t claim that it coincides perfectly with contemporary conceptions of Nature, either in natural science or in physicalism. However, I will claim that despite the many changes that have no doubt taken place since the early stages of modern physics in how natural scientists talk about and explain natural phenomena, what physicalists have held onto is the notion that the language of nature is relatively impoverished.
places limits on how natural history can unfold. An account of the natural laws precisely specifies a transcendent order in this sense – a set of principles we can articulate using propositions that tell us what any natural phenomenon whatsoever can be like. Thus, when we make sense of natural phenomena in terms of these laws, we consider them insofar as they manifest a transcendent order.

To see the physical image of Nature at work, let's again consider carbon. When we discover that carbon is something with atomic number 6 – i.e. whose nucleus is composed of six protons – we are thereby in a position to consider it in terms of its place in an account of the transcendent natural order. For such an account plausibly will mention protons. More than this, it will articulate as a possibility for them that they be combined with one another just as they are in the nuclei of carbon.

Thus, once we make this discovery, we have furthered the project of natural integration. We are in a position to understand carbon as a variation on something about Nature as a whole that is itself invariant: the transcendent natural order of which the kinds 'proton' and 'electron' are, plausibly, ineliminable aspects. In this way, we have imbedded our understanding of carbon in our understanding of Nature as a whole; and, our understanding of Nature as a whole enjoys the security of our having been able to account for what carbon is like.

It's important to remember, though, that the physicalist about carbon would step beyond the observations just made about it. She doesn't simply wish to say that we understand carbon and Nature as a whole better when we discover that carbon has atomic number 6, thus furthering the project of natural integration. This much is undeniable – in fact, even the skeptic would have no reason to deny it. Rather, the physicalist is trying to tell us what the correct account of
carbon's nature – of what it fundamentally is – must look like. It is this further step that requires us to understand the uses to which the physical image of Nature has been put by physicalist metaphysicians.

In what does this further step consist? As I’ve already noted, when a physicalist about $x$ claims that $x$ is entirely physical, she is urging us to account for what it is in terms of its place in Nature as a whole. But more than this, she will claim that we do so only when we view it from within the physical image of Nature – whatever form it takes in contemporaneous natural science. That is, we only consider it in terms of its place in Nature as a whole when we consider it as a modern physicist might, with her particular methods and explanatory ambitions. And thus, for the physicalist, it’s in this way alone that we get at its nature.

Another way of understanding the move the physicalist makes here is this: for the physicalist, two initially distinct conceptions of physics completely coincide. On the one hand, we have a philosophically charged conception of physics: physics as the science of Nature as such, Nature as a whole. On this conception, any knowledge we have of Nature as a whole can be aptly called physical knowledge, or knowledge of a truth of physics. On the other hand, we have this constantly changing and developing institution – the modern empirical science of physics. This institution is made up of a bunch of scientists who of course ask questions about Nature as a whole, but who have distinctive methods and distinctive explanatory ambitions. The physicalist, in essence, takes these two conceptions to completely coincide. She thinks that what the modern empirical science of physics says – or what it would say, were its theoretical ambitions to be completely fulfilled – just is the science of Nature as a whole. The physical image of Nature has no doubt changed over time. As a result, the varieties of physicalism that
philosophers have found attractive at any given historical moment have shifted over time. However, the equation of physics in the first sense with physics in the second has itself remained a constant in physicalism as a metaphysical doctrine.

We can see this conception at work in a use of the word “physical” that is quite common in metaphysics. On this use, those items (e.g. objects, kinds, and properties) are physical that would be represented using the repertoire of concepts employed in a so-called 'complete' or 'canonical' physics (in the second sense). To understand something as thoroughly physical, then, is to understand what it is exclusively using concepts from this repertoire: the repertoire of so-called physical concepts.

We can capture the commitments of the physicalist's conception of natural integration here in the following way: for her, the language of nature is, at least in the first instance, physical language. Now, what do I mean by a 'language of nature'? I am using the word “nature” here in both of the ways I’ve been using it so far – viz, to designate both the world around us in its entirety (Nature as a whole) and the natures of the things in it. That is, to call a repertoire of concepts the language of nature is to say that we can use them both to capture what it is to be any particular natural being and to articulate the unity among natural phenomena. When we are gripped by physicalism, the requirement of natural unity takes a particular form: namely, the conviction that the language of nature is the one we use when considering things from within the physical image of Nature. Such a language employs all and only physical concepts. In other words, it is physical language.

This diagnosis of the deep motivations behind physicalism helps us see why physicalism can strike someone, not only as an attractive view, but also as an absolutely unavoidable one.
Given the identification of the two notions of physics, denying that something clearly to be met with in Nature is entirely physical, or at least depends for its nature on what is, can, from this point of view, seem like embracing the existence of supernatural carbon; like casting a failure of understanding – a failure to naturally integrate this being – as a positive view.

However, if we embrace the physicalist’s conception of natural integration, what will be the labor of the philosopher who is interested in the natures of things in Nature – specifically, the metaphysician of human nature? After all, on this conception, it is the empirical scientists whose job it is to tell us what things in Nature are, and how they all hang together. I believe we’ll be in a better position to see this by first returning to the skeptical suspicion. As I’ve already indicated, one of my goals is to explain how this suspicion frames the terms of debate about human nature in the philosophers’ paradise. So, I want to turn next to considering how the physicalist conception of natural integration can generate the skeptic’s reaction.

1.3: Uncanny creature semantics

The first thing to notice is that critics of physicalism don’t typically object to the notion that human life can be understood better when described from within the physical image of Nature – not anymore than physicalists merely embrace this notion. Rather, what such critics suspect is that we can’t fully capture the nature of certain phenomena – namely, human mind and agency – using the restrictive language of nature available to us from within this image. When we describe human life in this way, the thought goes, our descriptive capacities are not simply restricted but impoverished – so much so that we can no longer keep what is exceptional about human life in view. That is, although the physical image of Nature has changed over time, one common thread running through its various forms is that not all of the concepts, terms, or forms
of judgment and explanation we use in our descriptions of human life have had fundamental a
place in it. And given the perceived indispensability of many of this conceptual apparatus, this
has struck philosophers not merely as an absence but rather as an impoverishment.

Now, it’s important to note again that the skeptic, as I understand her, doesn’t harbor a
suspicion about the physicalist’s conception of natural integration. Rather, she precisely
embraces it. She agrees that the cost of natural integration is an impoverished language of
nature. However, in contrast to the physicalist, she is led to suspect, on this basis, that human
beings are uncanny creatures – that we are strangers to Nature in the sense that our lives are not
subject to complete natural integration.

With that in mind, I’d like to consider some prominent examples of how this worry arises
in debates about the nature of human life – how, in other words, philosophers have been led from
the common ground of ordinary life towards feeling the pull of the skeptical suspicion.

One form in which such worries have brewed in recent philosophy has been using what
may be called döppelganger scenarios. A classical variation on the döppelganger scenario, due
to Donald Davidson, is Swampman.4 In it, we imagine that a lightning bolt striking a tree in a
swamp creates a physical replica of a human being – say, Davidson himself. Davidson dies, and
Swampman replaces him. He (or rather it) moves about in the world just as Davidson would,

4 Cf. Davidson's "Knowing One's Own Mind," in Subjective, Intersubjective, Objective (New York: Oxford University
Press, 2001), pp. 15–38. Particularly interesting uses of Swampman and similar döppelganger scenarios (e.g. Twin Earth
scenarios and zombies) in the service of an investigation into the natures of things and their place in the natural world are Hilary
University Press, 1975); Tyler Burge's papers work on anti-individualism, particularly “Individualism and the Mental,” in
Midwest Studies in Philosophy 4 (1):73-122; Dominik Sklenar's Being of a Kind (unpublished dissertation, UCLA, Los Angeles,
1997); Ned Block's “Troubles With Functionalism,” in Readings in the Philosophy of Psychology, Volume 1, Ned Block (ed.)
Fundamental Theory (New York and Oxford: Oxford University Press, 1996); and Michael Thompson’s Life and Action:
Representation of Life.”
fooling everyone it meets into thinking it is Davidson.

What purposes could be served by reflecting on such a strange scenario – which might very well be in the strongest sense impossible? The Swampman thought experiment and similar doppelganger scenarios have been used, in a wide variety of contexts, to investigate the boundaries of this or that form of physical description – in particular, of forms of physical description for human beings. That is, it has been used to pose questions like: can what is most exceptional about human cognitive life be captured using only physical concepts? Could those exceptional features even thoroughly depend on what we can represent using physical language? Could Swampman (or something like it) have the sort of cognitive life we have, or could its existence only be a dim shadow of human life?

Using such scenarios, this kind of question has been asked about a wide range of aspects of human cognitive life. For example, doppelganger scenarios like Davidson's Swampman and Hilary Putnam’s Twin Earth have been used to question whether the intentional relations to phenomena required for thought can be captured using physical descriptions. Could Swampman, for example, have concepts, beliefs, and desires? Or, philosophers have wondered whether there would be anything it would be like to be Swampman – whether, in the philosophical jargon, zombies would have consciousness. In both cases, we find a worry playing itself out through the use of doppelganger scenarios – namely, that physical descriptions are insufficient for describing or explaining the hallmarks of human cognitive life.

Another context in which the skeptical suspicion arises is in attempts to understand the nature of human agency. The starting point for this suspicion, I believe, lies in the fact that there are features of a human being’s actions that embody what we might call her practical point of
view, which itself is quite special.

As Elizabeth Anscombe famously observed, an action of mine is only intentional under certain descriptions – in particular, descriptions I am aware of my action as satisfying. For example, suppose that, in sympathy for a friend whose husband has just died, I’ve decided to help her with various tasks around the house. When I’m at work with a hammer and some nails, what I do, let’s suppose, can be correctly described as fixing some bookshelves, helping out this grieving widow, and, as it happens, tapping out the rhythm to an obscure Danish folksong with my hammer. But since I know nothing of Scandinavian music, this last description isn’t one under which my action is intentional.

On this conception, when you consider my action as intentional, you so to speak inhabit my own point of view on it; you consider it through the lens of features I myself attribute to it. But my viewpoint here is not exclusively, or even primarily theoretical – the viewpoint of an observer who is simply concerned with the question of what’s true about my action. Rather, when I act, I so to speak embody my answer to a distinct question – the question of what to do. And considering my action as intentional allows you, in particular, to inhabit this, distinctively practical viewpoint I have on my action.

This is one way of understanding Anscombe’s claim that an intentional action is one to which a request for reasons ‘has application.’ When you give my reasons for doing something, you reveal what, from my point of view, spoke in favor of a certain answer to the question of what to do, such that I answered it in that way. And so, you will, at least sometimes, reveal what relations of reason or justification seemed to me to obtain: after all, it’s these sorts of relations

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that human beings are capable of responding to when figuring out what to do. For example, the fact that fixing the bookshelves is also helping the widow was something that, from my point of view, counted decisively in favor of fixing the bookshelves; and, thinking this was exactly what led me to fix the bookshelves. This is just another way of saying that my reason for fixing the bookshelves was that it would help the widow. And, having given my reason for fixing the bookshelves, we can raise the further question whether my reason for acting is really a reason, or a good reason, to do what I did, and evaluate me – say, rationally or morally – on this basis.

It’s precisely here where our suspicious skeptic sees trouble brewing. When considering things from within the physical image of Nature, she worries, we will have no use for talking about relations of reason or justification or anyone’s point of view on them. And so, we will have no use for giving reasons explanations for their actions, or evaluating them in the ways that reasons explanations help to facilitate. Thus, whatever conceptual apparatus we need to talk about such things will be totally absent from the language of Nature. But, it seems we need to be able to talk about such things to capture the nature of human agency – to capture the fact that we have reasons for what we do, and perhaps the fact that we can appeal to those reasons when determining whether we have acted rationally or morally.

One the basis of worries like the two I’ve just discussed, our skeptic becomes suspicious. If the language of Nature is physical language, we lack, at least in the first instance, the means for naturally integrating human life; human beings, in other words, seem like uncanny creatures. From this vantage point, the requirement of natural unity seems directly at odds with the imperative to maintain a robust conception of human life and all that is exceptional about it. And this is precisely the perceived dilemma that frames the terms of debate in the philosophers’
paradise, the skeptical suspicion to which we feel we must respond when trying to account for human nature within this terrain.

Now, let’s return to a question I raised earlier: for the physicalist, what is the labor of the metaphysician of human nature? Crucially, the perceived dilemma that inspires the skeptical suspicion is grounded in a view about our thought or language – viz, the perceived gap between the language of Nature and the expressive resources we need to adequately describe human thought and action. What this perceived dilemma naturally leads to – and has in fact led to – is a certain philosophical research program: the metaphysics of human life, understood as a project in semantics. The physicalist’s endeavor in this program is to close the semantic gap – to achieve semantic rapprochement between the language of Nature and our descriptions of human life.

To see how this is so, consider the following question: for the physicalist, what becomes of the claims we make about natural phenomena like planets, trees or human beings using non-physical language? Consider one classical approach: reductive physicalism. For the reductive physicalist, when dealing with facts represented by such claims, we’re faced with the task of so to speak recovering them using physical language. In other words, we’re faced with the task of undertaking reductions: e.g., of claims that employ non-physical concepts to claims that employ only physical ones; or, of the items designated by non-physical concepts to items designated by physical ones. Reduction represents the most direct route to closing the semantic gap.

The reductive physicalist about carbon, for example, might say that carbon is nothing but a substance with atomic number 6. And she will look for defensible claims of the same sort with respect to key aspects of human thought and action: e.g. that to be in mental state M is nothing but being in physical state P, or that acting for a reason is nothing but a bodily event’s being
caused by such-and-such a neurophysiological event. The “nothing but” here is a way of expressing the semantic relations she has in mind. That is, the physicalist metaphysician with reductive ambitions undertakes a special kind of labor – she attempts to account for the nature of something by inquiring into the semantic relations between descriptions and/or propositions. For her, it is here where there’s a distinctive role for the philosopher: defending the requirement of natural unity, understood as one that concerns the language of Nature, and only indirectly Nature and its inhabitants themselves.

Now, although reductive physicalism about our target phenomenon – human life – is no longer a widespread view, it does, however, offer us the most clear-cut example of an attempt to satisfy a demand that physicalists feel the force of quite generally: to meet the requirement of natural unity by achieving semantic rapprochement between what we say within the physical image of Nature and what we say when we aren’t considering things through the lens it provides.

Other, less austere forms of physicalism likewise try to satisfy this demand – to close the semantic gap. Very often, this occurs in response to rejoinders from suspicious skeptics, who worry that various attempts at reductive gap-closing fail, because the semantic commitments we undertake in our ordinary descriptions of human mind and agency fail to coincide with those we undertake when employing physical language. For example, such a suspicious skeptic might claim that the criteria for the application of mental concepts are different from the criteria for the application of physical ones. Or, to take an example from a different philosophical sub-culture, she might claim that the extensional commitments of mental descriptions, conceived model-theoretically, are different from the extensional commitments of physical ones.

The physicalist views that currently enjoy widespread assent attempt to evade such
worries by being less ambitious than reductive views – viz, supervenience-based views, on which mental phenomena depend for their existence and/or nature on physical phenomena, without having to be strictly identical to them. For example, instead of claiming that a mental state M and a physical state P are identical, a supervenientist might argue for a co-variance of these states across so-called ‘possible worlds’ – really, formal models used to represent the semantic commitments of our thought and language. In other words, she might argue that in any model consistent with the semantic commitments of our thought, anything in state M is also in state P, and vice versa. What we have here again is an attempt to achieve semantic rapprochement between physical and non-physical language, albeit a less ambitious form than the kind attempted by the reductionist.

Whether in its reductive or supervenientist forms, what we have here is an attempt to respond to the skeptical suspicion, to undermine, on semantic grounds, her sense that human beings are uncanny creatures – beings that just aren’t subject to complete natural integration. Because of its intellectual sources, I will refer to the physicalist’s endeavor here as a project in uncanny creature semantics. The opposing endeavor in the field of uncanny creature semantics – i.e., from the side of the suspicious skeptic – would therefore be to argue that the semantic gap cannot be closed – at least, no in any way that would plausibly allow us to naturally integrate human thought and action.

Now, before moving on, I think it’s illuminating to note a parallel between uncanny creature semantics and the research program pursued in one of its most important wellsprings: the work of Descartes. In the Meditations, Descartes precisely investigates human nature vis a vis Nature as a whole by undertaking a semantic inquiry. That is, his methodology is to reflect
on the semantic commitments of his ideas. For example, the first real distinction argument of Meditation 6 rests on the claim that he can clearly and distinctly conceive of his mind without thereby conceiving of his body – or indeed, anything whatsoever in Nature (what he calls extension). On this premise he brings to bear a semantic principle he’s argued for earlier – that if he can clearly and distinctly conceive x without y, x can exist without y, and thus x is numerically distinct from y.

Now, the deep background to this methodology is the radical skeptical doubt with which he begins the Meditations. To be sure, by the time of Meditation 6, he has long since taken himself to have refuted the radical skeptic. However, the traces of radical skeptical doubt are still on display in his method. Having secured, he believes, his thinking and its intellectually scrutable contents from radical skeptical doubt, he attempts, for the remainder of the Meditations to establish theses by extending this epistemic security from his thought to other domains using this semantic principle – for example, to the existence of Nature, and, in the real distinction argument, to theses about the nature of human life.

Now, our suspicious skeptic is of course not the radical skeptic with which Descartes is fencing in the Meditations: our suspicious skeptic, for example, isn’t bringing to bear any doubts about the existence of Nature as a whole, or of flesh-and-blood human beings. However, the methodology employed in uncanny creature semantics is parallel to Descartes’ methodology. I think perhaps the parallel here runs even deeper, but at least this much is true: in both cases, our inquiry is transformed from an investigation of human beings – flesh and blood characters in the drama of natural history – into an investigation of the semantic commitments of our thought or language about them. In other words, in the philosophers’ paradise, we proceed as if we were,
like Descartes, fencing with a radical skeptic.

Let me sum up what I’ve done so far. I’ve attempted a rational reconstruction of the terms of debate in the philosophers’ paradise. At the ground level is the requirement of natural unity. What generates both physicalism and the skeptical suspicion about it is a certain construal of this requirement – a certain construal of what natural integration demands of us. This construal, inspired by certain features of the physical image of Nature and its descendants, casts the requirement – originally stated as one that concerns the things themselves, so to speak – as one that concerns our thought or language: namely, that the language of nature is, at least in the first instance, physical language.

The physicalist and the skeptic precisely share this dialectical presupposition. But the skeptic is pessimistic about the prospects of meeting this demand in the case of human mind and agency. For the physicalist, then, there remains a distinctive role for the metaphysician here: to take up the gauntlet thrown down by the suspicious skeptic and attempt to close the semantic gap between physical and nonphysical language. She thereby comes to think of the metaphysics of human life as a research program in semantics: she argues on semantic grounds that we can naturally integrate human life, just as the skeptic argues on semantic grounds that we can’t. This field of debate is the philosophers’ paradise.

Now, as I said near the beginning, my ultimate aim is to do more than simply reconstruct the path that leads from the common ground position to the philosophers’ playground. My further aim is to argue that the skeptic isn’t entitled to her suspicion, and thus we aren’t entitled to working within the philosophers’ paradise. So, next I’ll turn to the pointed question that my reconstruction raises: does natural integration really come at this cost of an impoverished
In what follows, I’ll argue that it doesn’t. Neither a commitment to natural unity nor even to natural uniformity requires us to impoverish our expressive resources as the physicalist does. If this is right, the path to the philosophers’ paradise falls away, brick by brick. It follows, that is, that the physicalist’s conception of the demands of natural integration is wrong; that the skeptic who shares this conception isn’t entitled to suspect that human beings are uncanny creatures; and that the physicalist isn’t entitled to respond to the skeptic using a semantic doctrine under the guise of a view about the nature of human thought and action.

To argue these points, I will defend an alternative view of the requirement of natural unity, which I’ll call the Spinozist view. Although I will use this term, let me be clear that I’m not primarily interested in historical scholarship here. What I’m calling the Spinozist view isn’t one whose attribution to the historical Spinoza himself I’m interested in arguing for. Rather, it’s a view inspired by certain themes in his work – specifically, his notion that finite beings are modes of the one and only substance, Nature itself. As I’ve already indicated, my primary interest in it is as a view about natural unity that’s not only interesting in its own right, but also, as I’ll argue, correct.

1.4: Re-thinking the Language of Nature

I’ll present the Spinozist view by considering how it interprets the three notions I claimed are at work in physicalism – the language of nature, natural uniformity and natural unity.

First, on the Spinozist view the language of nature isn't physical language; rather, it’s simply ordinary language. By this, I mean that in the Spinozist view, the language of nature contains any of the concepts we can use to express any truth about any being in Nature. In fact,
the Spinozist holds something stronger: any such truth pertains to its nature – to what it is. Because she thinks this, she’ll claim that any truths concerning beings in the world around us are just as much truths of physics as any of the propositions given in an account of the most general natural laws. By this, I don’t mean that every such truth is something that empirical scientists in physics departments would have occasion to attend to. Recall that there is another, philosophically charged conception of physics: the science of Nature as such. It’s this conception of physics that the Spinozist has in mind: every truth about any being in Nature is a truth of the science of Nature as such.

Thus, for the Spinozist, the truths of physics include the propositions by means of which we describe the ordinary manifestations of agency and mind we witness in the world around us. That I perceive some katydids; that there is something it is like to do so; that I am acting when I take my camera out and snap a photo – these are all truths of physics. Thus, all of the concepts used therein are part of the language of nature.

But how could ordinary language be the language of nature? There are two questions here, corresponding to the two criteria for being a language of nature – viz, that it be the language used to specify both the nature of any being in Nature and the unity among such beings.

First, why think the language we will use to specify the nature of any being in Nature includes all the concepts we use to express truths about it? We can answer this question by reflecting on the Spinozist’s stronger commitment: how could something’s nature include all of the facts about it? Her view is starkly different from many traditional views about nature or essence. Traditionally, the truths pertaining to a thing’s nature are, or are sub-class of, the
necessary truths about it. However, for the Spinozist, a natural being's nature isn't exhausted by its necessities: indeed, any truth about it pertains to its nature. For example, that I am human pertains to my nature. However, that I am black-haired and have two quarters in my pocket pertain to my nature as well.

Now, the Spinozist thinks this, not on general grounds (e.g., a theory according to which a thing's nature is what explains its conditions of individuation), but rather on grounds provided by the demands of natural integration. To naturally integrate a thing is to understand it, not in isolation – e.g., as a logical subject of predication related at a later stage to other beings – but as one location at which natural history unfolds. What it is, in other words, is inseparable from its place in Nature as a whole. When trying to understand its nature, our aim is so to speak to understand what Nature as a whole is like at this locale.

When we aim to fully understand something's place in Nature in this sense, any of the truths about it play a role. In fact, this is exactly how we treat natural beings when we do natural science. Of course, since our scientific knowledge at any given stage is limited, not all facts about a natural being necessarily strike us as illuminating, and so we think that some of them can go unheeded in our scientific accounts. It might therefore seem momentous that I am human but trivial that I have two quarters in my pocket. Further, any particular investigation concerns itself with a relatively small number of questions, and so we attend to a limited set of facts about a thing to answer the questions at hand. Thus, if we are psychologists, it might seem momentous that I can do arithmetic but trivial that I have black hair.

However, these observations concern ways in which we natural integrators are finite creatures each of whom occupies a particular, tiny corner of cosmic history. Given the particular
positions we occupy, only certain facts about things come into view; given the forces that have shaped us, we are at any time interested in asking certain questions about things, discharging certain explanatory demands and not others. The spirit of scientific inquiry, though, is to think that in principle every fact about a natural being is relevant for understanding what it is. Scientists are those strange folks who burrow into things and concern themselves with facts about them that in everyday life can seem trivial. Clearly, our investigations can only broaden our view to a finite extent: there are only so many questions we can ask, and only so many means we have at our disposal to answer them. But scientists are guided by the conviction that those aspects of a thing to which we normally attend, as well as those questions about it that it occurs to us to ask, are always already insufficient for fully understanding what it is – of what Nature is like here. This helps explain the seemingly strange aspirations they constantly pursue.

We can now see one crucial way in which Spinozism differs from physicalism. For the Spinozist, we don’t need, for the purposes of securing something’s place in Nature, tackle a project in uncanny creature semantics. For example, we need not undertake reductions. We need not try to recover truths about \( x \) by reducing them to other truths or by reducing the items they represent to other items. For if we embrace her view, we won't take one subset of the concepts we use to express truths about \( x \) to be the only concepts we can use to capture its nature; and, we won't take one set of properties or kinds to be the only ones pertaining to its nature. Neither do we need to pursue any other way of closing the semantic gap between the language of Nature and any other expressive resources we have at our disposal.

In fact, it’s important to understand the import of the Spinozist thesis concerning the language of Nature. In an important sense, it isn’t a thesis about our language or thought at all.
That is, insofar as they think that the language of nature is physical language, both physicalists and suspicious skeptics alike come to understand the requirement of natural unity as a requirement that directly concerns our thought or language, and only indirectly the world we talk about by means of it. This is what makes possible their particular way of pursuing an inquiry into human life and its place in Nature – the metaphysics of human nature qua uncanny creature semantics. In the Spinozist view, in contrast, this picture is turned over on its head. The requirement of natural unity directly concerns Nature and the things in it. Insofar as we end up inquiring into our thought or language, we will think of them simply as some among the many things in Nature whose place in Nature we might try to understand.

Of course, although the Spinozist rejects the need for reduction along with the semantic question to which reductions respond, this doesn’t entail the rejection of identity-truths. Some of the truths we discover about natural beings are undoubtedly identity-truths: that Hesperus is Phosphorus, that water is H$_2$O, etc. But for the Spinozist, no list of identity-truths by itself gives us the nature of something: a kind of nice, neat metaphysical formula for what it is. Rather, each such truth is simply another truth about it added to the stock of truths we build up to understand what it is. And in this respect, they are on a par with any other truths about it.

Neither does the Spinozist reject the dependence relations prized by supervenience-based physicalists anymore than of the identity claims prized by reductive physicalists. It's simply that such dependence relations don't, for her, have the special significance they are often taken to have. Of course, she does take dependence-truths – e.g., concerning the dependence of one property or state (say, a so-called mental one) on another (say, a so-called physical property or state) – to pertain to the natures of things. But again, this is simply because she takes any truths
about natural beings to pertain to their nature.

Now, what about the second criterion? How could ordinary language be what we use to comprehend natural unity? Above, I claimed that the physicalist restricts the language of nature to what she counts as physical concepts because she thinks these are the only concepts relevant for specifying the natural order – e.g., as in the physical image of Nature inspired by early modern physics, an order of natural laws.

To understand the Spinozist view, it will be instructive to contrast it with the original physical image of Nature in particular. The Spinozist understands the natural order as an immanent one. To understand the relevant notion of immanence, consider the following analogy. Again, trying to understand a natural being – me, some carbon, that tree – is trying to understand Nature here: at some particular location. For example, a fact about me at a particular place and time – e.g. that I was hungry this morning – is a fact about me as such. It is, in particular, a fact about me now. Likewise, a fact about what Nature is like at any particular location therein is a fact about Nature as such. It’s in this sense that for the Spinozist Nature is uniform. Every fact about a natural being concerns what Nature is like everywhere. It is true of Nature on Earth that it contains Alpha Centauri and of Nature at Alpha Centauri that it contains me on Earth.

Now, one might complain that this amounts to saying that Alpha Centauri is such that I exist – i.e. to attributing a mere ‘Cambridge property’ which says nothing of real substance about Alpha Centauri itself. The Spinozist can respond that this objection involves a confusion. Her claim isn't that Alpha Centauri, considered in isolation, is such that I exist: it irreducibly concerns Nature as a whole. True: when we consider Alpha Centauri, we are often forced to attend only to facts about it that manifest themselves when we look in its direction. But as scientists of Nature
fixed on understanding Nature as such, this confinement of focus is in the service of understanding Nature as a whole. And my existence – or that of any other human being – is crucial for understanding Alpha Centauri's place therein.

For example, the carbon caught up in the Cabron-Nitrogen-Oxgen cycles through which Alpha Centauri produces its inferno of radiation is the very same carbon that in me is caught up in vital processes, actions and thought. And these facts – that carbon here in this star is one and the same carbon that makes possible something so strikingly different – human life, action and mind – is of paramount importance. We sometimes overlook this to defend metaphysical hobby-horses – say, a distinction between intrinsic and extrinsic properties through which we cling to the intelligibility of considering beings in isolation from each other. But these are, I suggest, very distant from the project of natural integration.

What, then, will the Spinozist say about the physicalist's understanding of the uniformity and unity of nature? This: by her identification of two distinct conceptions of physics, the physicalist fixates exclusively on one class of natural invariances. For the Spinozist, in contrast, any fact about any natural being is what we might call an invariance fact – a fact about the structural invariances of Nature, and thus describes a way in which Nature is uniform.

But there are two kinds of invariance facts – locally manifested facts and globally manifested ones. We can illustrate this distinction using an example. It is true of me that I have a heart. But this isn't a fact that need be manifest when looking into my skull. Nevertheless, it is true of this very thing – namely me – that it has a heart. Now, it's also true of me that I am made of molecules. But in contrast to my having a heart, this is true of me through and through – no matter what bit of me you look at, you will find molecules there.
Analogously, a locally manifested fact concerns what Nature is like everywhere. But the fact that it is true of Nature here – at Alpha Centauri – that it contains me is not one that need be manifest when looking at Alpha Centauri. A globally manifested fact, in contrast, is something true of Nature through and through – it is manifested at every natural locale. The kinds of structure specified by the most general natural laws, for example, are globally manifested facts: every phenomenon in Nature manifests the kind of order they specify. The physicalist takes globally manifested facts to be the only ones that pertain to understanding the uniform natural order. From the Spinozist’s perspective, however, this ignores the natural invariances that are only manifested locally – which are equally facts about Nature as such.

Now, I said above that the Spinozist retains a commitment, not just to natural uniformity but also to natural unity. The difference between her and the physicalist is that, while the latter thinks that natural uniformity engenders nature unity, the Spinozist thinks that natural unity engenders natural uniformity. For her, the physicalist's view smacks of an important mistake: a way of mistaking an epistemic order for an ontological one. Epistemically speaking, we begin with knowledge of locally manifested facts and work our way to globally manifested ones. But since the latter ease the worries about natural unity with which we often begin as knowers, we can easily think that they are – in the order of things – what unites the diversity of nature. In contrast, the Spinozist takes this to be an artifact of the path we need to take in the face of seeming disunity in nature. And so, she takes both the facts that the physicalist takes to be elite and those the physicalist sees as possible troublemakers to manifest the unity of Nature.

Given the Spinozist's position vis a vis physicalism, what about the skeptical suspicion? Are we entitled to suspecting that human beings must be uncanny creatures – beings who aren’t
susceptible to complete natural integration? On reflection, it is evident that Spinozism does not admit of such worries. On its conception of the language of nature, they cannot get a grip. For something need only be true about us to pertain to our nature. And, of course, such truths include those that physicalists reject or reduce. Human beings deliberate and perceive; there is something it is like for them to experience what they do; they act intentionally; many of those actions are ripe for moral or rational evaluation, some are not. The Spinozist doesn't react to any of these with skeptical suspicion, because her desire to understand our place in Nature doesn't, by itself, lead her to think there is a semantic gap to be overcome between the language of nature and our other expressive resources.

Now, remember that for the Spinozist, identities are never to be understood as reductions – identity claims designed to herd our thinking towards an elite set of concepts or items at the expense of others. And so, she can happily embrace the very kinds of claims that fill the skeptic with apprehension. I am nothing more than this whizzing system of particles. Perceiving is nothing over and above the occurrence of certain processes in my body. This event of my arm-raising is this event of my arm's rising – no more, no less. For the Spinozist, I don't say anything more when I affirm these things than I do when I say that the morning star is nothing over and above the evening star – the evening star, no more, no less. The “nothing more” here need not express the possibility of closing a perceived semantic gap. As in many of its ordinary uses, it merely expresses an identity.

For these reasons, the requirement of natural unity leads us inevitably neither to the skeptical suspicion nor to the philosophers’ paradise in which we attempt to grapple with the suspicion either by closing the semantic gap she sees or by arguing that the gap cannot be closed.
Our sometimes tendency to think that the cost of natural integration and the natural unity it reveals is impoverishing our expressive resources – especially those by means of which we understand ourselves – is, on this view, misguided.

1.5: Back to Common Ground

Now, adopting the Spinozism I’ve outlined, I believe, returns us back to the common ground position. One reason this is so is one I’ve already suggested. What I’ve been calling the common ground position – from whose viewpoint we are creatures of Nature through and through – is our default position. If our suspicious skeptic cannot give compelling reasons for taking her suspicion seriously to someone in the common ground position, then the reasonable thing for the latter to do is to remain where she is. However, I think something further is true: the Spinozist view, I would like to suggest, just is the common ground position.

At first, this claim might seem paradoxical. After all, the view that I’m calling Spinozism is a view that tackles metaphysical themes at the largest scale. But in fact, I believe that in it, lofty metaphysical ambition coincides with common ground. When we occupy this common ground, our natural disposition is to look at the things in Nature – in the world around us – and innocently take whatever we find to be a genuine revelation about it.

As I’ve suggested in passing already, the attitude of natural science is simply an extension of the Spinozist view. A scientist studying the constitution of human pinky toenails can justifiably claim that she is studying human nature just as much as the neurophysiologist studying the neural correlates of consciousness is. Perhaps she’ll be more timid about proclaiming this – perhaps because her own explanatory interests in studying human nature don’t strike many people as very interesting: her papers, for example, don’t make the headlines, or her
theses don’t show up very much on Facebook walls and in Tweets.

But this is simply a function of the fact that certain explanatory demands strike people as being more interesting than others. When this isn’t the result – as it often is – of simple ignorance about what scientists do and why it’s important, our varying interests are the result of many factors. For example, certain kinds of knowledge about human beings and their place in Nature can strike us as more important than others for various practical purposes: they’ll help us to live longer and be healthier, or to solve social and economic problems. Or, perhaps we simply find certain kinds of knowledge more exciting than others: for example, I might find the behavior of the circulatory system in zero gravity exciting to investigate, because imagining these effects heightens my enjoyment of science fiction novels; or, I might find awe-inspiring an account of how a carbon atom in my body traced its path through cosmic history from all the way back to sometime shortly after the Big Bang. Surely, there are certain questions about human beings and their place in Nature that are, for reasons like these, more interesting to us than others. However, none of this entitles us to say that in some absolute sense, certain truths about human beings pertain to our nature, and others do not.

We can say the same thing about a scientist who is studying an obscure mushroom in the hopes that it will illuminate certain things about the life cycle of certain human stem cells. That is, she has as much claim to be studying human nature as the neurophysiologist or the scientist of toenails. To use the Spinozist idiom I’ve been using so far, she is studying Nature as a whole here – human cells – by studying Nature as a whole there – mushroom cells. No doubt, for certain purposes we say that she’s studying human nature indirectly – by directly studying those mushroom cells. For example, she’s doing her experiments, not on human tissue, but on
mushroom tissue. So for political reasons, we might try to avert the complaints of certain people about her stem cell research by assuring them she’s only studying stem cells indirectly.

However, in an important sense, her aim is to understand something about human beings – the mushroom cells are just a means to understanding something about human nature. Other than as a way of stating the obvious fact that she’s spending her days toiling over mushroom tissue rather than human tissue, there’s no good reason to qualify her investigation by saying that she’s directly studying mushroom nature, and only indirectly studying human nature.

Now, all this talk of natural science has the potential of distorting the view I have in mind. To see how this is so, let’s turn to an objection someone might run against the Spinozist view. It might be said that the view looks to be empty. It’s a view that we might be tempted to call a form of naturalism. However, it looks like it turns out, on this view, every truth about us is a natural truth – a truth about our nature, and the nature of Nature as a whole. But if we aren’t putting any constraints on what’s natural, how’s this really a view about what’s natural at all? At best, it’s a thoroughly deflationary view about what’s natural.

Very often, when philosophers call some view a deflationary one, what’s being deflated is some particular set of philosophical puzzles or ambitions. In this sense, the Spinozist view is indeed deflationary: it provides us the means for dispelling the skeptical suspicion and dismantling the philosophers’ paradise. However, there’s another use to which the adjective “deflationary” has been put in philosophy that I think is totally inapt for describing the Spinozist view. On this use, to say that someone has a deflationary account of $x$ is to say that there is no substantive account of $x$ to be given – that any longing we might have of such an account is completely misplaced. One example of this use is in talking about so-called deflationary theories
of truth. One of the hallmarks of such an account of truth is the notion that in an important sense there is no account of truth to be given, and that the desire to formulate such an account is therefore misplaced and bound to be frustrated.

But in this sense, the Spinozist view is manifestly not a deflationary view. On this view, there is an endlessly rich form of investigation into what it is to be part of Nature – namely, the many and various ways in which we investigate Nature and the things in it. The class of investigators of course includes natural scientists, but it includes anyone else who gets at such insights: marketplace observers and explainers, historians, anthropologists, even artists, poets and filmmakers. What the Spinozist will deny is that we have any reason to think we will ever complete our account of what it is to be natural – that, for example, we can retreat into a semantic bunker as the physicalist and the suspicious skeptic do, and thereby regiment an account of what it is to be natural prior to any of the historical encounters we have with Nature and its inhabitants.

If anyone can be accused of attempting to impoverish our accounts of what it is to be natural, I believe, it those who attempt to study human nature in the philosophers’ playground – those who espouse the presupposition shared by physicalists and suspicious skeptics alike. If one were to make the mistaken assumption that philosophers embroiled in debates about naturalism are in fact speaking for the natural scientists, one could easily come away with the impression that the scientists are rather defensive, even paranoid folks – bent on claiming sole authority over our ways of understanding ourselves and the world around us, excluding any other potential investigators de jure. There are perhaps such scientists around: after all, natural science occupies a somewhat embattled position in our culture, and this is the sort of thing that tends to
breed defensiveness and attempted power grabs.

However, to the extent that scientists themselves think this, I’d suggest their conviction is strictly external to the explanatory ambitions they pursue in practice. There isn’t anything internal to scientific practice that mandates for itself sole authority over our ways of understanding Nature. There is, of course, a *de facto* authority that natural science ought be accorded in many cases. That is, there are many cases in which a scientific finding about some subject matter is inconsistent with an opinion we hold in the common sense, and in which the reasonable thing to do is to give up the common sense opinion. But this is simply because natural scientists, in the best cases, devote especially large amounts of time and care in investigating the subject matters they do. In contrast, many of us who have what seem like perfectly commonsensical opinions about the same subject matters have those opinions, not because we’ve devoted ourselves in this way, but simply because it seems intuitively correct to us, or because we osmotically absorbed the opinion from the notoriously unreliable telephone-game of informal chatter. But this is a very different, *de facto* kind of authority than the in-principle sort that physicalists, for example, often want to claim for natural science.

One tendency I think is at work in the philosophers’ paradise is that at various stages of human knowledge, we find ourselves armed with investigative tools (concepts, principles, methods of investigation) that seem so powerful, to reveal to us so much about the world, that we are gripped by the thought that we must try to say everything there is to say about Nature – including everything there is to say about us – using those tools. But more than this – as I observed in the introduction – we are attached to an image of ourselves as uncanny creatures. This is, after all, a motif that shows up, not simply in abstruse metaphysics, but in theology,
politics, art and the culture at large. The persistence of this image might help to explain why we so easily find ourselves slipping away from common ground.

In the next chapter, I will devote focused attention to a theme that I have only mentioned in passing so far – natural unity and the demands of explanation. Given what I have said in the present chapter, it might seem that I have overlooked a set of considerations concerning the role of explanation in the science of Nature as a whole that put pressure on us to think that the language of nature is a relatively impoverished one. I will now turn to the task of extending both my criticisms of the philosophers’ paradise and my defense of the Spinozist view by considering this line of thinking in greater detail.
Chapter Two

Explanatorism and the Objection from Explanation

In an important sense, the Spinozist view I’ve introduced levels the metaphysical playing field. For the Spinozist, all truths are created equal: any truth about Nature or something in it pertains to the unity of the former and the nature of the latter. In fact, this is precisely what can inspire the worry that Spinozism is, in fact, an empty view – i.e., that it empties its two key notions (of Nature’s unity and of the natures of things in Nature) of any real content. How so? When a philosophical view seems empty to us, this is not because it in fact says nothing: when nothing is said, what we have isn’t a view at all, but rather silence. Instead, the accusation of emptiness, when it isn’t a simple case of hand waving, is usually provoked by the fact that a view fails to say something about its subject matter that we think must be said. It passes over in silence something we think needs to be addressed, and for that reason we indulge in the hyperbolic claim that it says nothing of substance whatsoever.

In this and the next chapter, I will address a suspicion of this sort about Spinozism – the starting point for what I’ll call the objection from explanation. A philosopher of the kind I have in mind worries that Spinozism passes over the role of explanation in silence - and in doing so, misses something crucial about natural unity and natural integration. In fact, Spinozism, the objector complains, is a dramatic case of missing the point – failing to see something about why we're interested in natural unity and natural integration in the first place.
2.1: The Objection from Explanation

The objection from explanation departs from a certain conception of science. A satisfactory science of Nature as a whole – a satisfactory physics – must do more, it might be thought, than merely collate truths about Nature and the things in it. In natural science, we do of course set out to uncover truths about the world around us. However, the standard for achieving a science of x is higher than that for simply attaining knowledge thereof. First of all, when doing the science of x, we set out not merely to know things about it, but to give explanations of what it’s like and what it does. Thus, the task for a science of Nature will be something more refined than simply acquiring any old knowledge about Nature and the things in it – namely, explaining why things in Nature are as they are.

However, a science aims at something yet further – not only to explain, but also to achieve what might be called a unity of explanation. What is this? In the early phases of a science, we usually face various problems. There is of course the fact that the explanations we give of our subject matter may very well be false. However, even when our explanations are correct, another issue looms: the various explanations we give might seem disparate and unconnected. Of course, we who practice the science of x have this much in common: we're all focused on x. But even though the subject matter of investigation unifies us, we might nevertheless feel ill at ease because our explanations of that subject matter don’t seem to fit together very well. For example, we might appeal to these principles to explain on this occasion, those other principles to explain on another, and then fail to understand how the two sets of principles relate to one another. Or, we might explain this event using one style of explanation, that event using another, and then fail to understand how these different styles of explanation fit
However, if all goes well, as our science becomes more and more sophisticated, we become better not only at formulating explanations using propositions that are true, but also at formulating explanations that are less and less piecemeal. We develop frameworks of explanation – i.e., we find certain kinds of explanations and certain principles that allow us to account for more and more aspects of our subject matter. Further, that we do so is far from coincidental: any science aims not simply to explain its subject matter, but also for its explanations to hang together more and more coherently – ultimately, to fit together in a single framework. We might quibble (and surely philosophers have quibbled) about precisely what kind of unity of explanation any science implicitly aims at. However, whatever it looks like exactly, this unity, it has often been thought, is the aim distinctive of a true science. To use a classical turn of phrase: any body of knowledge deserving the name of science aims at a systematic account of its subject matter.

Now, with the present conception of science in hand, we might very well conclude that what's true for any particular subject matter is true also for that global subject matter, Nature as a whole. A true science of Nature, we might think, aims ultimately at a single framework of principles and forms of explanation, a framework within which we can account for everything that is and occurs in Nature. By achieving such a unity of explanation, we’d achieve a science of Nature that itself is unified – what we’d be justified in calling a systematic physics.

The philosopher who poses the objection from explanation bases her complaints against Spinozism on the above conception of science in general and the science of Nature in particular. In short, her contention is that the unity of Nature is found in the unity of explanation. For her,
what we're looking for in an account of how natural diversity hangs together is the ability to explain any of the diverse phenomena in Nature within a single, unified explanatory framework. And so, it’s only when we achieve this that we understand what the unity of Nature is. In other words, the drive towards natural unity just is the drive towards formulating a systematic physics.

This conception of natural unity, if correct, directly impacts on the project of natural integration. That is, to naturally integrate something is to understand its nature against the background of natural unity. And so, it follows from the present conception of natural unity that our account of the nature of anything in Nature ought ultimately to be a function of our description of it from within a systematic physics. In other words, the language of nature will ultimately be, in the first instance, the language of systematic physics.

This, for our objector, is precisely what Spinozism overlooks about natural integration. The Spinozist’s let-a-thousand-flowers-bloom conception of natural unity is unity in name only. That is, it completely ignores the privileged place of explanation – and the unity of explanation – therein. This is why the objector believes Spinozism to be empty.

The problem isn’t that the Spinozist will offer no account of what it is to be part of Nature. As I suggested near the end of the last chapter, this accusation rests on a simple misunderstanding of her view. Instead, the problem is that the Spinozist won’t offer the right sort of account. She mistakes the mere acquisition of knowledge about Nature and the things in it for something more refined. Whatever our account of what it is to be part of Nature ultimately looks like, it must be based on a systematic science of Nature – a physics that exhibits a unity of explanation. Again, we might quibble (and again, philosophers surely have quibbled) over what sort of unity of explanation secures natural unity for us. But whatever this unity consists in, it’s
what we need to understand to understand Nature’s unity, and thereby how anything in the world around us fits into Nature.

Now, my aim in the next chapter will be to undertake a response to this objection. However, before we’re in a position to understand this response, we must understand the metaphysical commitments of the objection itself. This is because my response will depend precisely on undermining those commitments.

More specifically, we must get clearer on the special role that the objector accords to explanation. As I will argue below, at the core of the objection is a metaphysical picture I will call the *explanatorist model* – a model of Nature and the things in it. The rest of the present chapter, therefore, will be devoted to a detailed examination of this model.

### 2.2: The Explanatorist Model

The structure of our explanations has held a privileged place in the history of metaphysics. When trying to uncover the most fundamental features of what there is, metaphysicists have often supposed that we ought to use the structure of explanation as our guide. The view presupposed by the objection from explanation belongs to this tradition.

Notice that there are, based on the above sketch of the objection, at least two distinct aspects of this view – two distinguishable doctrines that we must espouse in order to find ourselves gripped by the objection. This is because the objection relies on a specific view about the place of explanation in natural integration; and, the notion of natural integration, in turn, concerns two subject matters: the unity of Nature, and the natures of things in Nature. Both doctrines concern explanation, and so I will refer to them both as forms of explanatorism.

The first doctrine is what I'll call *explanatorism about natural unity*. This is the notion
that we’ll only understand the unity of Nature by examining our explanations of Nature and the things in it. As explained above, the explanatorist model is committed to a particular version of this view – namely, the view that to understand the unity of Nature, we must specifically examine the explanations given in a systematic physics.

The second doctrine is a specific form of what I will call *explanatorism about natures* – as the label indicates, a species of view about the nature or being of something. An explanatorist about \( x \)’s nature thinks that its particular nature or its categorial being just is, in a sense to be clarified, what does certain kinds of explanatory work for us. That is, she thinks that explanations – or, more commonly, some specific class of explanations – are so to speak what tap us into \( x \)’s nature or being. The objection from explanation is crucially grounded in a particular form of this view – namely, in the view that to understand the nature of some \( x \) in Nature, we must look to the explanations for what \( x \) is like and what it does that would be given in the explanatory framework of a systematic physics.

As I’ve already noted, this second doctrine follows from the first, together with a commitment to natural integration. However, to see more clearly how these two aspects of the explanatorist model fit together, I will first consider each in turn. I’ll begin by considering explanatorism about natures generally speaking, and situating the specific form of it espoused in the second doctrine against this background.

2.2.1: Explanatorism about Natures

Explanatorism about natures might be encapsulated in the slogan: what explains is of the essence.\(^6\) What do I mean by this? The issue here is not the strict truth of our explanations.\(^6\)

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The term "explanatorism" and the slogan I've used here to encapsulate it derive originally from a paper I co-authored with
Suppose we simply assume that a given kind of explanation has instances whose expressions are strictly speaking true – i.e., instances where what we say when we give the explanation, taken at face value, describes real features of the world. An explanatorist of the present sort who fixates on this kind of explanation will make a further claim: she'll claim that when we are giving that kind of explanation, what explains is precisely what reveals to us the nature or being of certain phenomena.

Now, the expression "what explains" is ambiguous. To see how this is so, note that a canonical form in which a very wide range of explanations can be expressed is using propositions of the form “P because Q.” In an explanation of this kind, “P” represents the explanandum – the state of affairs being explained; and “Q” represents the explanans – the state of affairs to which the explanation appeals in order to explain the explanandum. Thus, for any explanation, "what explains" can refer to an explanation's explanans – what is appealed to in order to account for something. However, it can also refer to the explanation as whole – what, so to speak, does the appealing. This ambiguity is intentional: explanatorism about natures comes in at least two different species, corresponding to these two different ways of understanding what explains. To clarify what’s at stake in the genus, I'll discuss the two species.

In one species of explanatorism about natures, explanantia are held to occupy the nature-

Sarah Coolidge and Joseph Almog: "Life Without Essence: Man as a Force-of-Nature," in Philosophical Perspectives, 25, Metaphysics, 2011, pp. 43-77. The present discussion is intended as a development of some of the ideas concerning explanation we talk about in that piece, and owes a great deal to conversations with both Almog and Coolidge over the last few years.

This characterization is, of course, rough. For example, many sentences of this form – viz, those in which ‘P’ is some sentence of the form ‘x thinks/believe R’ – are justifications: i.e., sentences in which ‘Q’ gives reasons for the truth of ‘R.’

Of course, there's yet a third way of using "what explains" - namely, to refer to the person giving the explanation. But this third use is not relevant for the present purposes.
or being-determining role: they tell us what is most fundamental about the subject matter being explained, and thus reveal its nature or being to us. For an example of this sort of explanatorism, we can look at one prominent conception of nature: nature as real definition. On this conception, to give an account of something’s nature is to give something like its definition – not of any expression we might use to talk about it, or any concept we might use to think about it, but rather a definition of the thing itself. But what makes some feature of a phenomenon part of its definition? There is a range of answers to this question, but one of the most prominent is that those features of a thing are part of its real definition that do various kinds of explanatory work.

This conception of something’s nature has been applied to a wide range of phenomena, and in different ways. For example, we might, in a spirit of scientific naturalism, claim that the nature of the kind ‘water’ is to have the structure ‘H$_2$O’ – i.e., that the proposition “Water is H$_2$O” gives us water’s definition. Why would someone offer this proposal? Precisely on the basis of the idea that in our best scientific explanations of what water does and undergoes in varying circumstances, we’ll ultimately appeal to water’s having this structure. We’ll say, for example, that it’s ultimately because water has the structure ‘H$_2$O’ that it freezes under these conditions, evaporates under those conditions, acts as a solvent for this range of substances, and so on. On this view, “Water is H$_2$O” gives water’s nature – its real definition – because it’s the ultimate explanans for all of our scientific explanations of water.

In the second species of explanatorism about natures, to understand something’s nature or being, we look not simply at the explanantia of our explanations but at these explanations as a whole. The general approach here is to take certain kinds or classes of explanation to reveal to us the nature of some phenomenon, or even what we might call its categorial being.
For a prominent example of this species of explanatorism about natures, consider Elizabeth Anscombe's reflections on the nature of intentional action in *Intention*. As noted in Ch. 1, she begins these reflections by claiming that to be an intentional action is to be an event "to which a certain sense of the question 'Why?' is given application" – specifically, the sense "in which the answer, if positive, gives a reason for acting." The nature of intentional action, in other words, lies in a certain form of explanation – ones that give an agent’s reasons for acting. Thus, an investigation of the conceptual architecture of this form of explanation, as well as its semantic commitments, fills in our account of the nature of the phenomenon.

This is a particularly important form of explanatorism, since the agenda set by Anscombe in the opening volleys of *Intention* became the standard agenda for analytic metaphysics of action in the following half century, up until the present moment. In this tradition, it's usually presupposed that the metaphysics of action just is the metaphysics of reasons explanation, which in turn is pursued through an analysis of the conceptual architecture and semantic commitments of reasons explanations. In such investigations, philosophers attend carefully to and debate about both the explanantia of reasons explanations – i.e., an agent’s reasons for acting – and the sense in which these reasons explain the agent’s actions. For example, one prominent controversy concerns what the true explanantia of reasons explanations are if they are to be doing the explanatory work they do: are they aspects of our actions themselves, or rather mental states, or rather propositions, or etc.? But in this context, such investigations precisely depend

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10. I will undertake a more detailed examination of explanatorist metaphysics of human action for Ch. 3.

11. In listing these three candidates, I have in mind influential positions taken in the metaphysics of action. For an example of
on the presupposition that reasons explanations give the nature of the phenomenon.

This second form of explanatorism about natures can also concern something more general than the natures of natural beings: viz, their categorial being. I am using the latter expression roughly – to designate aspects of what something is that in certain key respects are more general than its particular nature. For an example of this, consider the following extension of the metaphysical naturalism about water just discussed.

Certainly, water, horses, and stars have different particular natures. After all, being a horse is very different affair from being a star, and both are very different affairs from being water. It’s natural for the metaphysical naturalist to agree, and to express her agreement by saying that their respective real definitions will be quite different from one another. For example, she might say that while the nature of water is to have the structure ‘H\textsubscript{2}O,’ the nature of horses is to have DNA D. However, these distinct natures have, she might say, something more general in common with each other. There is, in other words, a ‘highest common factor’ that they share: the real definition of horses can be discovered by looking to the same place we looked to discover the real definition of water – viz, at the kinds of explanations of what they’re like and what they do that are available to us through natural science. Those explanations are what indicate to us, for example, that “Horses have DNA D” gives us the real definition of horses: the fact that they have this DNA is what we’ll appeal to in our natural scientific explanations to account for the vicissitudes of horse morphology, the horse life cycle, horse

the first, we need only turn to Anscombe herself, for whom reasons explanations fundamentally relate one description under which an action is intentional to another. Michael Thompson has carefully developed this picture in his *Life and Action: Elementary Structures of Practice and Practical Thought* (Cambridge: Harvard University Press, 2008) – specifically section II, “Naïve Action Theory.” A very influential example of the second position is Donald Davidson’s “Actions, Reasons, and Causes,” (in his *Essays on Actions & Events* [New York: Oxford University Press, 1985], pp. 3-10), in which he takes the position that for me to act for a reason is for my action to be caused (in ‘the right way’) by a desire of mine and a belief concerning the means to satisfying this desire. For an example of the third position, cf. Scanlon, T.M. (2009, February), *Metaphysics and Normativity*. Paper presented at UCLA, Los Angeles, CA.
behavior, etc. Having DNA D and having the structure ‘H₂O’ are very different from one another, of course, but they are exactly parallel because they both play the role of ultimate explanantia in our natural scientific explanations.

It's this ‘highest common factor’ that I have in mind when I talk about categorial being. The categorial being of a phenomenon is, as it were, the abstract frame that determines what features are candidates at all for pertaining to its nature. In the case of the present view about water, horses, and stars, this abstract frame is provided by natural scientific explanations: those features of each sort of thing that pertain to its nature do so, on this view, because they have a key place in this class of explanations. Of course, for historical reasons metaphysical naturalists are unlikely to use the terminology of ‘being’ to express their views. However, they often have this sort of view about categorial being operating in the background, if only implicitly. They will simply express it differently than I have – for example, by saying that only ‘natural’ or ‘physical’ features of a natural phenomenon can pertain to its nature.

2.2.2: Explanatorism about Natural Unity

With these varieties of explanatorism about natures in view, we're in a position to sharpen our understanding of explanatorism about natural unity. Since the philosopher who poses the objection from explanation thinks that the language of nature is the language of systematic physics, she's committed to something very much like the metaphysical naturalism just discussed. For her, different things in Nature of course have different particular natures. But the explanations available to us in a systematic physics give the categorial being of anything in Nature. The language of systematic physics is the highest common factor they all have in common: to naturally integrate something – to understand what it is against the background of
natural unity – is simply, in the first instance, to situate it in the unified explanatory framework that, for her, simply is the science of Nature as a whole.

Now, if we espouse this core view, there are any number of views about the particular natures of particular phenomena available to us. We might – in general, or in a range of specific cases – adopt the first species of explanatorism about natures, and attempt to look for real definitions of each natural phenomenon. We might, for example, examine the explanations of it that are given in state of the art natural science to uncover ultimate explanantia for those explanations – i.e., with the thought in mind that we should use such science to guide our pronouncements about systematic physics. The notions that water’s nature is to have the structure ‘H₂O,’ and that the nature of horses is to have DNA D are examples of this approach.

Or instead, we might – generally, or in specific cases – dispense with the notion of real definition, and adopt the second species of explanatorism about natures. An example of this approach in contemporary metaphysics often goes under the label of ‘functionalism.’ Someone who is a functionalist about some x thinks that to be x is simply to play a certain causal role, where the notion of something’s ‘causal role’ is often a stand-in for the class of explanations we would give in our natural scientific explanations of what it does and undergoes.

However the details of the explanatorist model unfold in various versions thereof, the underlying view's the same: the categorial being of things in Nature is given by the framework of whatever turns out to be the correct systematic physics. Such physics provides the language of nature, and so, in the first instance, to give the nature of anything in Nature is going to be a matter of describing it using this language.
2.3: Back to the Philosophers’ Paradise

If the objection from explanation is successful – presupposing as it does the explanatorist model I’ve just sketched – it threatens to return us to the same well-worn dialectical terrain. The Spinozist’s oversight here, it might be thought, leads her to misunderstand what drives physicalists and human exceptionalists alike to tackle questions about the natures of things in Nature from within the philosophers’ paradise. That is, what drives them is precisely the conception of natural unity I’ve just sketched.

To make this clear, let me proceed in roughly the manner I did before – i.e., by beginning with the case of the physicalist. Recall the physical image of Nature and the use to which physicalists put it. This image is one in which things in Nature are viewed through the lens of certain natural uniformities – viz, those articulated in expressions of natural law. And for the physicalist, naturally integrating something just is, in the first instance, viewing it through that lens – i.e., accounting for its nature using concepts from the repertoire with which we articulate the physical image of Nature. But why?

We're now in a position to recognize a motivation for this view that was overlooked in the argument of Ch. 1. The reason that physicalists have put the physical image of Nature to this use, it might be thought, is that the empirical science that spawns the image provides, or at least promises someday to provide, a single, unified framework for explaining things in Nature. Physicalists, we might complain, aren’t enamored of natural uniformity for its own sake, let alone of the particular sorts of natural uniformities described by natural laws. Rather, the interest of natural laws has all along lain in the fact that a complete set thereof promises to be a single, unified set of principles we can use to explain absolutely everything in Nature – a systematic,
complete theory of Nature as a whole. If in the end it turns out to be some hitherto unimagined
form of future science, or principles of pre-modern Aristotelian physics, or even ancient Hindu
cosmology that pulls this off rather than natural laws, physicalists will lose their interest in
natural uniformities. What matters for natural integration is the unity of explanation, and in
putting the physical image of Nature to the use they have, physicalist philosophers have simply
followed where the state of the art in physics has seemed to be pointing them.

Now, once we revive physicalism by defending its underpinnings in this way, we're set
back on the path to the philosophers’ paradise. The fact that the repertoire of concepts we use to
articulate the physical image of Nature is impoverished is simply the sign of an ever-present
threat. When faced with the task of formulating a framework of explanation for any science –
including a science of Nature as a whole – all truths are precisely not created equal. Unity of
explanation would seem to come at the cost of exclusion: like any other framework of
explanation, a systematic physics will include some styles of explanation and not others; it'll
appeal to certain features of things in Nature in its explanations and not others. And this
exclusion, our objector will claim, is the aspect of natural unity that has always contained the
threat of being drawn into the philosophers’ paradise. That is, if the language of nature is the
language of systematic physics; then if the unity of explanation that the latter achieves comes at
the cost of exclusion, the language of nature – at least in the first instance – does as well.

In the many forms that systematic physics has taken in the past, this threat might not have
been obvious. However, the modern empirical science of physics has only brought a previously
implicit threat out in the open: what has turned out to be excluded in modern physics are
precisely many of the concepts and forms of explanation we employ when trying to understand
human life – e.g., mental concepts and rationalizing forms of explanation. And so, given the best science we have at our disposal, we're doomed, at least for the time being, to undertaking the project of uncanny creature semantics to bridge the gap – a project which, if successful, will draw us toward physicalism; and if unsuccessful, towards human exceptionalism.

Many of the most prominent controversies about the metaphysics of mind and action in the last century can be understood in this light. For example, in the metaphysics of action, the problem of ‘naturalizing’ intentional action – in my terms, of naturally integrating it – has usually been conceived as the problem of bridging the gap between reasons explanations for intentional actions and natural scientific explanations of events involving human bodies. This example is instructive because it's one in which the explanatorist model butts heads, so to speak, with explanatorism about the nature of intentional action.

In this way, the objection from explanation not only threatens to expose Spinozism as an empty view, but also to unravel the argument of Ch. 1 – i.e., to undermine my attempt there to deploy Spinozism in an effort to block the path to the philosophers' paradise. That is, although the objection itself does not strictly speaking defend the manner in which metaphysical questions are addressed in the philosophers’ paradise, it presupposes a view – the explanatorist model – that threatens to lead us there nevertheless.

2.4: Rationalism and the Explanatorist Model

Now that we've examined at some length the metaphysical view presupposed by the objection from explanation, it’s natural to ask: what is it that motivates the explanatorist model? In it, aspects of our explanations of some phenomenon are accorded a special place in our understanding thereof. Of course, the discovery of any truth about a phenomenon extends our
understanding of it. This is because knowledge of $x$ is a kind of understanding about $x$.

However, the explanatorist elevates the kind of understanding that explanation gives us – call it *intellection* – to a very special status: for her, the subject matter that intellection grasps is the nature or being of things. In other words, there is, for her, something special about explanations in particular, in virtue of which they open up a path to the nature or being of things. But why does she posit this special epistemic link between explanation on the one hand, and nature or being on the other? Answering this question – understanding the gap that the explanatorist perceives there to be between intellection and understanding more generally – is the key to understanding the gap between the explanatorist model and Spinozism.

The answer I will suggest to this question is this: at the roots of the explanatorist’s view here is a tendency towards what I will call *rationalism*. By “rationalism,” I don’t mean an epistemic doctrine according to which it’s possible to gain substantive a priori knowledge of the world. In order to have a terminological device for marking the distinction, I’ll call this latter doctrine *entitlement rationalism* – since, that is, it concerns the conditions under which we're entitled to various judgments. When I speak of rationalism *simpliciter*, I have in mind a metaphysical doctrine that frequently underlies entitlement rationalism – namely, that the structure of being is the structure of intelligibility. The key strategy for a rationalist is to hone in on what she takes to be key structural features of our modes of understanding and to claim that these features have a special status because they mirror key structural features of the world.

To clarify the view I have in mind here, we need, then, to reflect on the explanatorist’s conception of intellection itself. The explanatorist’s conception of the sort of understanding we get through explanation is, I will suggest, what motivates her to accord a special status to the
object of that understanding – the relations between states of affairs that explanations describe.

In other words, the explanatorist is precisely a rationalist about the structure of explanation. Although it might be true that any truth we discover extends our understanding, philosophers have frequently been attracted to the view that explanations give us understanding of a deeper, more substantial sort. To defend such a view, we’d have to say what is special or distinctive about the kind of understanding that explanations give us. We can make this question a bit more precise in the following way. Suppose a billiard ball A rolls towards a stationary billiard ball B, striking the latter and causing it to roll. When I explain B’s movement by saying that B moved like this because A moved like that, what I say of course entails that ball B moved like this and ball A moved like that. However, my explanation says more than this: the “because” links A’s movement to B’s in a particular way. Now of course, knowing that there's some link between two states of affairs involves something over and above merely knowing that the two states of affairs obtain. But a rationalist about explanation wishes to say something even stronger: in discovering the links between states of affairs that explanations report using the word “because,” we acquire, she wishes to say, a special sort of understanding – something qualitatively different from mere knowledge of a relation between states of affairs. The explanandum of an explanation is what, for the purposes of the explanation, is given. And, the special, additional gain in understanding – what we might call the explanatory gain – is due to the movement of thought, so to speak, from explanandum to explanans.

If we want to claim this, we would then need to clarify the specialness of intellection by posing the question: what exactly is explanatory gain? The answers to this question might of course vary, depending on the kind of explanation we’re talking about. However, if we answer
this question for a certain kind of explanation, we’ll know what distinguishes the intellection it affords us from mere knowledge of a conjunction, and from the sort of knowledge we have when we know of any relation between states of affairs.

There are two features of explanations on which we’d need to reflect in order to understand explanatory gain. First, there’s the movement of thought itself – the specific way in which an explanation traces its explanandum to its explanans. The question here would be something like: what does the specific sort of movement of thought involved in a given kind of explanation contribute to explanatory gain? For example, what is it about tracing B’s movement to A’s movement by way of a causal relation that contributes to a qualitatively special sort of understanding of the former? What is it, for example, that makes my knowledge that A’s movement caused B’s movement qualitatively different from my knowledge that A’s movement and B’s movement happened in roughly the same vicinity?

Second, there’s the destination, so to speak, of the movement of thought: the explanans. To use a common metaphor, the explanans is the source or ground to which the explanation traces its explanandum. The question here would be something like: what is it about such a source or ground that contributes to explanatory gain? To use a slightly different example: philosophers of action sometimes reflect on a question of just this sort in debates about the metaphysics of action. That is, they sometimes reflect on the nature of an agent’s reasons for acting, precisely on the supposition that the nature of someone’s reasons for doing something intentionally will reveal to us the nature of the action itself, because their being related to that action in the way they are gives us an understanding of it that is of a qualitatively special sort.

To answer questions of these two kinds is to give a certain kind of account of the
structure of intelligibility in explanation. That is, these questions presuppose that intellection is special, because answering them would require us to say what’s distinctive about the explanatory gain afforded to us by a given kind of explanation, and so would help us to understand what’s distinctive about intellection itself.

Now, it’s important to realize that the main question here is an epistemic one. That is, what prompts the question is precisely the idea that explanatory gain is somehow different from the kind of understanding we get from discovering just any old relation between states of affairs. Thus, a straightforward metaphysical account of the truth conditions of the explanation won’t, by itself, answer this question – that is, unless we posit some distinctive relation between the metaphysical story and the epistemic subject matter of the question.

Now, the key explanatorist move is to posit a link of just this sort. As we saw above, the explanatorist model begins with a view about the natural unity – how the diverse phenomena in Nature fit together. Suppose we were to begin by putting forward a somewhat innocent, liberal conception of natural unity, according to which any knowledge of how things in Nature relate to one another is revelatory of natural unity. After all, any knowledge of how things in Nature relate to each other is…knowledge of how they hang together. It’s important to see that the advocate of the explanatorist model would object to this view: from her perspective, this view is not simply liberal, but promiscuous. For her, the class of truths that help us understand the unity of Nature is much more refined. We hone in on the refined class of truths in two steps. First, we narrow in on the truths expressed in explanations – again, ones expressed by propositions of the form “P because Q.” Second, we further narrow in on the explanations provided to us by systematic physics. Once we've taken these two steps, we've narrowed in on the truths that really
help us to understand the unity of Nature.

What is it that would motivate the explanatorist towards this view? She can of course concede that, just as any knowledge of something gives us some understanding of it, any knowledge of how things in Nature relate to one another gives us, in some sense, an understanding of how the various parts and aspects of Nature hang together. However, she will naturally respond that the sort of unity she has in mind is unity of a special sort. But by what criterion does she judge this? It would seem that the criterion she is using is a conceptual one. That is, it's a property of a certain discursive artifact – viz, the unity exhibited by a certain framework of explanation (systematic physics) – that inspires her confidence here.

It’s in this way that the explanatorist model partakes of a particular form of what I’m calling rationalism. The explanatorist treats the specialness of a certain sort of understanding – the unity of explanation that makes for a systematic physics – as the criterion for a special sort of unity. But as I’ve already explained, she takes the further step of grounding the being of things in Nature, and in turn the particular natures of things therein, in this special sort of unity. Thus, she treats the specialness of the intellection afforded to us in a systematic physics as the criterion for the being and nature of anything in Nature.

For all intents and purposes, then, she treats certain aspects of the structure of intelligibility as being identical to the structure of being. The two different variations on explanatorism about natures correspond to two different variations on this move. In the second sort, one aspect of the structure of intelligibility – the distinctive way a kind of explanation traces its explanandum to its explanans – gives the nature or being of the subject matter being explained. In the first, another aspect of the structure of intelligibility – the source or ground to
which we trace the explanandum – gives the nature or being of the subject matter being explained. In both cases, some aspect of the structure of intelligibility is equated with the structure of being – i.e. something’s nature or categorial being. On this model, an answer to a certain *epistemic* question about a phenomenon – what’s achieved in the explanatory gain that certain explanations of it afford us – guides us to an answer to the *metaphysical* question of its nature or being. And this is because an answer to the former just *is* an answer to the latter. It’s in this sense that explanatorism is grounded in rationalism.

2.5: The Methodological Commitments of Explanatorism

For someone who adopts the explanatorist model, what, then, is the method by which we’ll account for the nature or being of something in Nature? Given the two stages of the explanatorist’s maneuver, the answer is clear: first, by answering the epistemic question concerning the character of explanatory gain; and second, by accounting for the specific kind of explanatory gain afforded to us by a systematic physics. This is a crucial methodological consequence of rationalism, and thus of the explanatorist views that are grounded in it. I will call a commitment to this method *conceptualism*. A conceptualist thinks that an inquiry into the nature or being of things just *is* an inquiry into the conceptual architecture of our discursive practices. Any philosopher who adopts explanatorism about something’s nature is a conceptualist in this sense. For example, someone who espouses Anscombe’s explanatorism about the nature of intentional action is committed to filling in her account of the nature of intentional action through an examination of the conceptual architecture and semantic commitments of reasons explanation. But in particular, the philosopher who adopts the explanatorist model espouses a particular form of conceptualism: she thinks that in order to
understand the nature or being of something in Nature, we need to understand the conceptual architecture of the explanations we would give in a systematic physics.

Now, one natural question to ask about the discussion so far is this: isn’t conceptualism already a consequence of explanatorism about natures, regardless of whether that sort of view is grounded in rationalism at all? Not quite. Although the explanatorism about x’s nature does entail that we must attend to some features of the structure of our explanations of x in order to understand x’s nature, something more is involved in conceptualism.

That is, the conceptualist methodology doesn’t simply require us to attend to our explanations. One way in which we might do this is by giving a metaphysical account of the truth conditions of the explanation – i.e., of what the subject matter it describes is like. But recall that an inquiry of this sort will not be sufficient for developing the rationalist commitments of explanatorism. Rather, the explanatorist must account for a key fact about our cognitive perspective on the subject matter of an explanation – the phenomenon of explanatory gain, the fact that the movement of thought in certain explanations is an intellectual achievement of a special kind. Thus, the conceptualist methodology is to investigate the architecture of our concepts in a familiar philosophical sense. That is, it studies, not simply the bits of the world we represent in thought and language, but primarily epistemically significant features of the way we represent those bits: i.e., as a means to discovering the nature or being of things.

Someone who embraces the explanatorist model is, in fact, a conceptualist twice over. First, for her, questions about the unity of Nature are really conceptual questions – more specifically, questions about the conceptual architecture of the explanatory framework of systematic physics. She asks "Do our explanations of things in Nature fit together; and if so,
how?" And her account of how things in Nature fit together will ultimately be an account of how our explanations fit together into a unified explanatory framework. Second, for her, questions about the natures of things in Nature ultimately depend on these latter conceptual questions about explanation. That is, insofar as she thinks we must situate the natures of things in Nature against the background of natural unity, she'll think this just is the problem of fitting our account of a thing's nature into a privileged explanatory framework. In both cases, a question in metaphysics is tackled by tackling a question of epistemology – i.e., a question concerning our understanding and how it is organized.

2.6: The Guises of Explanatorism

Now that we have a picture of the explanatorist model, what motivates it, and what methods of investigation it lays out for any philosopher who adopts it, I would like to address a question of scope. That is, in order to further clarify the relation of the explanatorist model to rationalism, it's important to point out that there are many views that embrace it whose proponents are likely to rail against what I've claimed is built into the foundations of the model.

For example, I’ve called the form of understanding that the explanatorist thinks explanations impart intellection. And, this of course smacks of an epistemic view that would be anathema to many who are attracted to the explanatorist model. That is, it smacks of the notion that in intellection we have a special sort of non-empirical knowledge. With this association in tow, if we attribute to someone who embraces the explanatorist model the view that we achieve intellection of the nature or being of natural phenomena through our natural scientific explanations, it will seem that we attribute to her a perverse view: namely, that we don’t arrive at natural scientific explanations through empirical means.
This response is understandable, given my use of the term “intellection” – admittedly, an intentional provocation. That is, given its historical pedigree, this term is suggestive of entitlement rationalism – i.e., of a commitment to the possibility of substantive a priori knowledge of the world. However, I’ve been careful so far not to blur the difference between rationalism and entitlement rationalism. Granted, I’ve argued that the explanatorist model is grounded in a view about the relation between epistemic facts and metaphysical ones. However, I have remained neutral as to the kind of evidence by which we achieve intellection – e.g. whether this evidence is empirical. The epistemological element in rationalism concerns the special character of a certain kind of understanding (viz, explanatory gain), not of the conditions under which we are entitled to claiming for ourselves this kind of understanding.

Why, then, use the term “intellection” in this potentially confusing way? I do so to highlight a way in which views that often try to distance themselves from entitlement rationalism might nevertheless be committed to a historically significant component of the metaphysical picture that drives its ambition. That is, historically, entitlement rationalists have frequently thought that substantive, a priori knowable truths about the natures of certain things are at the same time truths about our epistemic perspective on those things.

One prominent example of this would be Kant’s view that synthetic a priori truths about the nature or being of various aspects of the world are precisely at the same time epistemically significant truths about possible experience and judgment. For example, for Kant, synthetic a priori truths about time limn the boundaries of what we can perceptually represent – specifically, of phenomena that are temporally determined in our perceptual representations thereof. The subject matter of these truths, in other words, is not simply time itself, but important aspects of
the nature of perceptual representation.

Another prominent example is Frege’s conception of thought. For him, we can have a priori knowledge of the nature of a domain of special entities in ‘the third realm’ – i.e. thoughts. Thoughts, in and of themselves, exist independently of the existence of any thinkers, and in this sense constitute a subject matter in their own right apart from the vicissitudes of our psychology. However, for Frege, the structure of the domain of thought is crucial to accounting for certain features of understanding and reasoning. For example, to grasp a thought is simply a relation between a thinker and an entity in this domain. And, it’s in virtue of the structure of this domain that principles governing correct deductive reasoning obtain. And thus, a priori knowledge of the structure of thoughts pertains quite directly to the nature of our understanding and reasoning.

Two elements must be distinguished in these kinds of views. The first is a view about our entitlement to our judgments – i.e., that we can be entitled to at least some of them in a non-empirical way. The second is equally an epistemological doctrine, but one of a different sort: namely, that what we come to know in this non-empirical way are at one and the same time both truths pertaining the natures of things, and also truths pertaining to our epistemic relation to those things.

If we aren’t careful, and group these two elements together under the single label “rationalism” (as is often the case), we might fail to realize the distinction between them. In particular, we might fail to realize that although explanatorist views can (and often do) dispense with the first element – what I’ve been calling entitlement rationalism – they nevertheless retain the second element – what I’ve been calling rationalism simpliciter.

This failure, in turn, can easily obscure the fact that explanatorism involves not only a
melding between epistemology and metaphysics, but also a way of doing metaphysics through the lens of epistemology – i.e., conceptualist methodology. This kind of obfuscation is a special threat in the context of the explanatorist model; here, a strong commitment to empiricism about natural phenomena and realism about natural phenomena can easily mask the rationalism brewing beneath the surface.

We can see another way in which a commitment to rationalism might remain implicit by considering another, related response to my characterization of explanatorism’s rationalist commitments – specifically, using the example of Anscombe’s views on intentional action. Her agenda for the philosophy of action has certainly been taken up by many philosophers in a spirit aptly expressed as I do above. However, it’s likely that she herself would be quite cautious about the description of her project as an attempt to account for the nature of intentional action – or, indeed, as a robustly metaphysical project at all.

After all, the project she announces in Intention doesn’t explicitly concern the nature or being of anything at all, but rather the unity of the concept of intention. As she points out in the very first section of Intention, the concept doesn’t obviously have such a unity. That is, different variations on the word “intention” are used in syntactically very different contexts – to talk about what one’s intentions are in doing such-and-such, one’s intentions for future action, and what one does intentionally. And, it isn’t initially clear whether these are different ways of applying a single concept, or rather mere homonymous uses of a single word. Her stated project is to argue for the former option – and, this seems to be a semantic investigation rather than a metaphysical one.

More than this, on a certain (‘resolute’) reading of her methodology – as well as that of
Wittgenstein, her teacher – such an investigation is never to be understood as uncovering a special, metaphysical subject matter like nature or being. Rather, at best, it simply elucidates the conceptual architecture of our concepts (their ‘grammar,’ ‘use,’ or ‘criteria of application’), which in an important sense isn’t a special subject matter at all, let alone the subject matter of nature or being. There is, on this view, no such subject matter at all: it’s a kind of confusion to think there is, one to which philosophers are particularly prone, and of which philosophy can, at best, disabuse us.¹²

Without diving into scholarly debate, I would simply point out a presupposition of the philosophical temperament described here. One way of preserving rationalism is in abstention – i.e., by holding that if an account of something’s nature or being is anything, it’s given by the structure of intelligibility, and so revealed by investigating the conceptual architecture of our concepts or discursive practices. Someone who partakes of rationalism in this peculiar way is a negative rationalist, so to speak.

The analogy I have in mind here is to negative (or apophatic) theology. Negative theology rejects traditional theology’s ambition of accounting for God’s nature or being, yet nevertheless attempts to address (if not quite answer) traditional theology’s questions using a peculiarly self-effacing version of its methods. A negative theologian thereby transforms theology into a continual ritual observance of its own failure – an observance that feeds off the perceived unavailability of any other means to do theology.

¹² I have in mind here philosophers who, under the influence of philosophers like Jim Conant and Cora Diamond, espouse a so-called ‘resolute’ reading of Wittgenstein; and who extend this reading to the works of Anscombe, Wittgenstein’s disciple, and even his mentor Frege. For an example of a resolute reading of Anscombe’s methodology (albeit not in Intention, but rather “Intentionality: A Grammatical Feature of Sensation”), cf. Kelly Dean Jolley’s The Concept ‘Horse’ Paradox and Wittgensteinian Conceptual Investigations. I owe a great deal of my understanding of the ‘resolute’ reading of Frege, Wittgenstein, and Anscombe to lectures by and private conversations with Jolley.
Similarly, a negative rationalist rejects traditional metaphysics's ambition of accounting for the nature or being of things. Nevertheless, she attempts to address (if not quite answer) the traditional questions of rationalist metaphysics, and does so using a peculiarly self-effacing variation on the latter’s conceptualist methodology. In this way, the negative rationalist transforms philosophy into a ritual observance of the failed ambitions of metaphysics (‘philosophical therapy’) – one that feeds off the perceived unavailability of any other way of uncovering the nature or being of things. But crucially, this perceived unavailability presupposes that rationalism is, as it were, the only game in town – the only means by which we can uncover the nature or being of things.

It's in this sense that, even on the resolute reading, Anscombe remains a rationalist. Even her resolute readers are likely to admit that it’s quite natural – at least prima facie – to be confused her methodology in Intention and think she's deploying it to pursue explicitly metaphysical ambitions. This, I believe, is for two reasons.

First, her methodology is as the conceptualist would have it. That is, her method of investigating the concept of intention is an analysis of an epistemic feature thereof: its ‘criteria of application’ in various logical contexts. Now, when the notion of a concept’s ‘criteria of application’ is sufficiently thin, it need not follow that an investigation into such criteria is epistemological in character. For example, suppose we simply think that a concept is correctly applied if and only if the result is a true judgment – e.g., that the concept ‘horse’ is correctly applied when we apply it to horses. This is a purely truth-conditional notion of the concept’s criteria of application; and on this conception, any application of the concept ‘horse’ that results in a false judgment fails to meet the concept’s criteria of application. In other words, on this
conception, an investigation of the concept’s criteria of application is just an investigation of horses.

However, it’s clear from Anscombe’s methodology that she has a different conception of failing to apply a concept in accordance with its criteria of application. That is, it isn’t sufficient for this kind of failure to apply that concept in a way that simply results in a false judgment. Rather, in practice, she makes a distinction between (a) failing to understand the world, thereby applying a concept to produce a falsehood; and (b) failing to understand a concept (i.e., its grammar, or criteria of application), thereby applying it to produce a piece of nonsense. A failure of kind (a) is compatible with fully understanding a concept C’s criteria of application. That’s because a failure of kind (b) is a failure to understand what it is to fall under C, while a failure of kind (a) is simply a failure to recognize that something does or does not fall under C.

Because she makes this sort of distinction, when Anscombe investigates a concept’s criteria of application, she isn’t merely investigating the things it applies to, but rather our cognitive perspective on those things. For her, to investigate a concept’s grammar or criteria of application isn’t to investigate “what I mean or am speaking of,” but rather “that through which I understand or think of (mean) etc.” The picture here is that to understand the concept of x isn’t simply to understand x. Rather, it’s to have a particular cognitive perspective on x: for example, to know that it possesses features that are attributed to it in the concept’s criteria of application. It’s in this sense that her investigation of a concept’s criteria of application is a piece of

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epistemology: it uncovers our way of understanding that of which it's a concept.

Second, the question Anscombe uses this method to tackle in *Intention* closely parallels a classical sort of metaphysical question. I have in mind a question of the ‘unity of names,’ especially as this kind of question is pursued in Aristotle and Aquinas, two of Anscombe’s principal inspirations. For example, in *Metaphysics* 4.2ff., Aristotle argues for a special kind of unity had by being (a ‘unity of analogy’) by arguing for a special kind of unity among different uses of the verb “to be” – (viz, *pros hen* equivocation). In this context, an investigation of the content of a concept is harnessed to the end of demonstrating the unity of the phenomena represented thereby. In the case of the concept of intention, Anscombe begins with the concept of intention much as Aristotle does with respect to the concept of being, and undertakes a unification project using qualitatively similar methods.

That Anscombe employs this method to address a classical sort of metaphysical question is unsurprising, given that elsewhere she assents to Wittgenstein’s doctrine that ‘essence is expressed by grammar.’ More than this, this assent involves an explicit commitment to conceptualism. We can see how this is so by considering the full sentence I quoted in part above: “The essence (as expressed by grammar) [of the kind ‘horse’] is not what I mean or am speaking of: it is rather that through which I understand or think of (mean) etc. That is to say, it is that because of which my use of the word is a case of meaning a kind of animal.”

On the resolute reading, of course, Anscombe’s aspirations are quite different from those

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14 Anscombe, op. cit.

15 Anscombe, op. cit.
typically attributed to Aristotle: she is, again, after the simple unity of a concept, while holding
back from any claim about the unity of the phenomenon it represents. At least, she holds back
from any unity of the phenomenon over and above the unity of the concept. On this reading, her
espousal of the view that essence is expressed by grammar must be understood in a particular
way: i.e., as amounting to the claim that what philosophers have traditionally understood as the
subject matter of nature or essence is nothing over and above our concepts’ grammar or criteria
of application. To think anything else is to court a distinctively philosophical kind of confusion.

However, her investigation, on this reading, is a prime example of negative rationalism.
As a kind of ritual observance of the failure of metaphysics (i.e. the confusions about human
action she thinks it falls into), she precisely deploys the conceptualist methods of rationalists, in
much the same way that rationalists do, in order to dispel metaphysical confusion.

I've dwelt a while on these issues in this section because it is very important to note that
even philosophers who cast their projects as dramatically anti-metaphysical might – and often do
– nevertheless partake of a key aspect of the rationalist metaphysical picture. And in fact, an
avowedly anti-metaphysical pose is perhaps the easiest place for rationalist metaphysics to lay in
hiding. In different ways, many self-styled naturalists and philosophers working in the wake of
Wittgenstein have views of this sort – very often, without realizing themselves the rationalist
underpinnings of their own views.

2.7: Two Questions About Metaphysics and Explanation

Having laid out the varieties, motivations, and methodological commitments of
explanatorism, the natural question to ask would be: is explanatorism correct? Is the structure of
explanation what opens up the nature or being of things? In the next chapter, my response to the
objection from explanation will rely on an argument that the answer to this question is in all cases “no.”

However, before embarking on this argument, I'd like to introduce and diffuse a possible objection to it – one that I will return to repeatedly in Ch. 3. Someone might very well ask: but isn’t an attack on explanatorism an attack on the very objectivity of explanation? No. To see why this is so, we need to be careful to contrast the question of whether explanatorism is correct with another, distinct question – what I will call the question of realism.

Much of the philosophical literature on explanation concerns the rivalry between various forms of realism and anti-realism – e.g., about forms of scientific explanation. In this context, philosophers have wondered whether the propositions we use to express various forms of scientific explanation are ever strictly speaking true when taken at face value. In doing so, they have pursued the question of realism – roughly, the question of whether a kind of explanation describes real features and items.

To clarify the question of realism, let’s consider two variations on it, corresponding to two different aspects of explanations. For any explanation expressible using a proposition of the form “P because Q,” or any class thereof, one might pose the question of realism, on one hand, about the propositions flagging the word "because"; and, on the other, about the way the explanation as a whole links these propositions using the word “because.”

In the former case, what's usually at issue is specifically whether what we appeal to when attempting to describe certain explanantia are real features and items in the world. One Hume-
inspired example is this: suppose we think that science is in the business of giving explanations in terms of exceptionless natural laws - e.g., that a canonical scientific explanation of event E will be that it occurred because some set of conditions C obtained, and some natural law tells us that something like E will occur, given C. Someone might then worry whether our natural laws are ever strictly speaking true – whether they describe real, worldly structures. On the assumption that they have counterfactual force, for example, an austere empiricist might argue that empirical evidence never entitles assent to counterfactually forceful claims – and thus, that we have no reason to think natural laws, construed thusly, are true.

The second way of posing the question of realism concerns the reality of what we might call etiological relations – that is, the way in which explanations link propositions together using the word “because.” We might ask, that is, whether a certain kind of etiological relation ever obtains. One prominent example concerns teleological explanations: e.g., the statement that hearts beat because they circulate blood throughout the body – in the sense, that is, that they beat in order to do so. Philosophers have sometimes wondered whether they’re ever strictly speaking true – whether ‘in order to’ relations are real. As with the Humean example given above, the

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17 When I talk about an explanation’s being ‘strictly speaking true,’ I mean, roughly, that it describes actual phenomena, given that we take its meaning at face value. As I will discuss below, one way of accommodating anti-realist intuitions about a given kind of explanation is precisely by arguing that we need not take its meaning at face value.

18 It might be thought that it is misleading to speak here of etiological relations. I.e., it might be thought that “because” is a syncategorematic expression, and thus is not properly thought of as one representing a relation – at least, in the way that for example the expression “kicks” does. For example, any explanation of the form ‘P because Q’ entails ‘P and Q.’ This might easily be taken as evidence for the claim that “because” is a conjunctive expression which so to speak adds semantic or pragmatic force over and above that expressed using the word “and.” For the purposes of the present discussion, this issue is not important: for someone with the present concerns, my talk of ‘etiological relations’ can be treated as mere shorthand for something like “the mode of unification of propositions into an explanation.”

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ultimate worry here is often epistemic - i.e. an empiricist's worry whether we have clear empirical criteria for accepting teleological explanations.

Given this *prima facie* distinction, I want to highlight two features of the examples I’ve given above. First, in both, the over-arching question is: does this or that feature of this or that kind of explanation describe a real phenomenon? Secondly, the question of realism is often prompted by epistemic concerns. In the above examples, epistemic considerations lead philosophers to think there’s some pressure towards anti-realism: to the extent that they’re worried about our entitlement to a certain kind of explanation, they suspect that explanations of this kind can’t be taken at face value. After all, explanations purport to further our understanding of the world. And, the most straightforward way of construing this is that the propositions employed in explanations do so in just in the way that other true propositions do – i.e., by revealing real items and structures in the world. If, however, we're not entitled to assenting to a certain kind of explanation, how can it impart genuine understanding rather than an illusion thereof? And if a kind of explanation is never justified, nor imparts understanding, why think that it ever has true instances? The looming threat here is of alarming anti-realism or relativism about our explanations.

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19 I emphasize that this is a *prima facie* distinction because in many particular contexts, it might seem unclear to us whether the intuitions we bring to bear when posing the question of realism concern explanantia, or rather etiological relations; or even whether anything much turns on this question. For the purposes of the present discussion, it doesn’t matter, however, that we be able to draw a crystal clear line between these two kinds of worry.

20 That is, the epistemic pressure here is really twofold. For, if the epistemic worries about a certain kind of explanation seem decisive, there are two ways of responding. First, we could simply abandon the relevant kind of explanation on the grounds that it isn’t capable of imparting genuine understanding of the world – e.g., abandon teleological explanation, or explanation in terms of counterfactually forceful natural laws. But if we find a kind of explanation indispensable to our capacity to make objective sense of the world, this move will seem to threaten that capacity (alarming anti-realism). On the other hand, we could attempt to find a way that explanations of the relevant kind can do the explanatory work we need them to do without our having to take their truth conditions at face value. For example, we might argue that the seeming counterfactual force of natural laws is itself a kind of *façon de parler* – e.g., a way of marking our epistemic standing *vis à vis* observed regularities in Nature, and/or of organizing our empirical knowledge of the world. This second strategy attempts to mold our conception of an explanation’s
With these points about the question of realism in mind, let’s return to the question of whether explanatorism is true. Notice a number of parallels between it and the question of realism. First of all, both can be posed about the explanantia of our explanations, and about the way in which an explanation as a whole links its explanandum to its explanans. And second, both are prompted by concerns about the epistemic significance of explanation. However, these commonalities ought not seduce us into confusing the very different forms that these two features take with respect to the two questions.

First, although we can pose both questions in parallel ways, what is at stake in the one is very different from what is at stake in the other. In the question of realism, what is at issue is whether explanations are strictly speaking true. In posing the question about a range of explanantia, the question is whether those explanantia describe real features and items in the world. And likewise, in posing the question about etiological relations, the question is whether the way a kind of explanation links two states of affairs captures some real unity or relation between them.

In contrast, when posing the question of whether explanatorism is true, as I’ve already pointed out, it’s most natural to simply assume that the form of explanation into which we’re inquiring has instances that are true. After all, if it doesn’t, this would make the question idle: if some proposition isn’t true, it certainly doesn’t capture anything about the nature or being of its subject matter. The question of whether explanatorism is true isn’t whether an explanation is true, but rather how its truth bears upon the nature or being of what it explains. Thus, for semantic commitments to our conception of our epistemic situation. But this could seem to contain an alarming form of relativism, since it involves holding that our explanations are as they are, not because of anything to do with Nature as a whole, but because of facts about our own cognitive endowments.
example, someone who denies that water’s nature just is its having the structure ‘H₂O’ wouldn’t thereby be denying that water does this or that in various circumstances because it has that structure. Her suspicion is about a certain theory of its nature or being, not about such natural scientific explanations.

In fact, to deny explanatorism about water doesn’t even entail that explanations don’t at all reveal the nature or being of the phenomena they explain. For example, someone who holds the Spinozist view I defended in Ch. 1 precisely does think that our explanations of a phenomenon do help us to understand its nature. Recall that for the Spinozist, any truth about something in the world around us pertains to its nature. It’s crucial to bear in mind here that the explanatorist accords a special role of a specific kind to explanations. She thinks that they are special in revealing the nature or being of things to us, that have a more fundamental status than garden-variety truth.21 Thus, rejecting explanatorism only commits one to rejecting this specific aspect thereof.

Now, let’s turn to the second common feature between the two questions. As I’ve already noted, the way that a philosopher who embraces the explanatorist model comes to think that explanations occupy a special role with respect to nature or being is by way of a variation on the rationalist doctrine. We can distinguish the epistemic issues at stake here from the ones at stake for the question of realism by returning to the distinction between entitlement rationalism and rationalism simpliciter discussed above.

First, the epistemic concern that prompts the question of realism is, remember, a concern about entitlement. The question here is whether we are ever entitled to assenting to certain kinds

21 For example, it’s also common among explanatorist rationalists to accord a similar role to truths of logic.
of explanation. This concern in turn leads many philosophers to suspect that such kinds of explanation are never strictly speaking true.

But recall that the epistemic/metaphysical doctrine that underlies explanatorism – viz, rationalism – does not directly concern entitlement, but rather the special character of explanatory gain. Thus, if we criticize the intimate connection between explanation and nature or being posited by rationalists, we don’t thereby attack our entitlement to our explanations. At least, some special argument is required to demonstrate that this is so.22

Given these distinctions between the two questions, what could lead a philosopher to suspect that an attack on explanatorism is an attack on the objectivity of and/or realism about our explanations? There’s at least one presupposition that could breed this suspicion: namely, the notion that in order for our explanations to be objective or to describe real features and items in the world, rationalism must be true.

As I will argue next, I believe this presupposition is operating in the background for a philosopher who poses the objection from explanation. In what follows, I will argue that explanatorism in general – including the explanatorist models – fails; I will do so by arguing that rationalism is false. But because the above presupposition is, I believe, quite persistent, I will continually track, as I do so, the consistency of my arguments with the objectivity of the propositions used to express explanations.

22 I will argue that this consequence in fact fails to go through. However, I leave this argument for the next chapter.
My argument against the explanatorist model will proceed in much the way the argument of Ch. 1 does. That is, the proper way to assess the explanatorist's view is to begin from the common ground view, and assess whether we can successfully justify the explanatorist model from this starting point. Here, as in my preliminary discussion of the common ground view, I believe that the Spinozist view coincides with the common ground view. With this in mind, I will begin with a preliminary comparison of the Spinozist view and the explanatorist model, and trace what it is we must take on to move from the former to the latter.

The key difference between the two views lies in their respective conceptions of what it is to understand natural unity. For the Spinozist, we further our understanding of natural unity anytime we acquire knowledge of things in Nature. First of all, any knowledge of how things in Nature relate to one another is, by that very fact, knowledge of natural unity – of how the diversity to be found in Nature fits together. In this sense, her view is much like what I was calling the innocent, liberal conception discussed in Ch. 2.

But to stop here would be misleading. That is, it could lead to the misconception that knowledge of something’s so-called ‘intrinsic properties’ isn't relevant for comprehending natural unity. But – as discussed in Ch. 1 – for the Spinozist, such knowledge precisely is a part of how we further our understanding of natural unity. We frequently hone in on a bit of Nature and uncover one of its local properties – e.g., that I am a carbon-based life form, that the Earth has a molten core, or that in Alpha Centauri there are CNO cycles that produce radiation. But
each such bit is just that – a bit of Nature: Nature here, at some location therein. And so, knowledge of something's purportedly intrinsic properties is also knowledge of how things in Nature hang together. To know that I am a carbon-based life form precisely is – though I might not yet realize it – an epistemic link to Alpha Centauri, in which the carbon that is in me churns away in a much different form.

To step from this common ground view to the explanatorist model involves a two-step abstraction. First, the explanatorist abstracts away from the wealth of facts about things in Nature and how they relate to one another and elevates a certain class of truths – those used to give explanations – to a special status. That is, for her, it’s among these truths in particular that we must look in order to comprehend natural unity. The second step lies in the fact that the explanatorist elevates a particular sub-class of the truths that we use to explain: namely, those that we use to articulate a systematic science of Nature. This science, for her, gives the being of things in Nature, and so determines what the natures of things in Nature are. And so, it’s to them that we must look, in the first instance, to understand the unity of Nature.

The main question for the present chapter will then be: is this two-step abstraction justified? As I suggested in Ch. 2, what motivates this maneuver is precisely a particular form of rationalism – rationalism about the structure of explanations. That is, the explanatorist’s hypothesis about natural unity here is grounded in a two-stage epistemic doctrine about explanations. First, for her, explanations give us a deeper, more substantial understanding than we can get from just any old truth. Second, the unity of explanation to be found in a systematic physics gives us an elite variety of this deeper, more substantial sort of understanding – a way to encompass Nature using a single, unified framework of explanation. To account for the elevated
epistemic status she deems these explanations to have, she then ventures a rationalist hypothesis about natural unity: the unity of Nature is what we gain through the unity of explanation that we get through a systematic physics. And so, to understand natural unity, we must turn to the epistemic question of what the unity of explanation itself amounts to. It's only once we understand what this unity amounts to, and actually have a systematic physics that achieves it, that we will really understand the unity of Nature.

The explanatorist model, I will argue, represents a certain kind of inversion of terms in comparison to Spinozism – from the perspective of the latter, one that makes for a topsy-turvy picture of things. Someone who espouses explanatorist model treats our understanding of Nature and its unity as an outgrowth of epistemology. She begins with we knowers, and attempts to settle on what natural unity is from this starting point. She attempts to reverse engineer, as it were, the unity of Nature from a unity she senses there to be in certain ways of understanding it. For her, to understand natural unity we turn, to begin with, not to Nature itself – i.e., to observe how it hangs together. Instead, we turn to ways we have of understanding it that she deems to be elite. The epistemological inquiry into these elite forms of understanding is first in the order of inquiry, and we attempt to recover an account of natural unity on the basis. Facts about Nature and how it hangs together will of course be essential to her final account, but only insofar as such facts have a privileged epistemic status for us.

For the Spinozist, in contrast, epistemology is an outgrowth of our understanding of Nature. We turn to Nature itself in order to understand natural unity – both at the outset of inquiry and throughout. Of course, part of the Nature we turn to includes ourselves and our ways of knowing. And so, understanding Nature will inevitably lead to epistemology – just as it will
inevitably lead to geology, biology, and any other specialized inquiry into particular sectors or aspects of Nature. However, for the Spinozist, nothing here requires us to withdraw our sphere of investigation to matters of epistemology and treat them as prolegomena to understanding Nature. If in the course of our epistemological investigations, we discover that certain of our ways of understanding Nature play a quite central role in human life, this of course bears upon natural unity – as any knowledge does. But it doesn’t give us any reason to elect some truths about ourselves or the world around us as aspects of the unity of Nature to the exclusion of others.

Thus, in order to respond to the objection from explanation, I will argue that the rationalist inversion undertaken by the explanatorist is illegitimate. It is illegitimate precisely because it projects epistemology onto metaphysics. However, to see in exactly what sense the explanatorist does this is a delicate matter. As my argument unfolds, I will take great care to point out many times that nothing I will say challenges the notion that the formulations we use to give explanations – propositions of the form “P because Q” – are objective. Such propositions are, so far as my argument will be concerned, true and false in just the way that any factual proposition is – i.e., true or false, depending on how the world is irrespective of the fact that we've set out to explain something in it. However, I will argue that, despite their being objective, the explanatorist's two-step abstraction nevertheless projects epistemology onto metaphysics in an illegitimate manner.

In particular, a proper understanding of our historical imbeddedness – our imbeddedness in Nature as inquirers, knowers, explainers, and everything else that we are – will disabuse us of the rationalism on which explanatorism is grounded. It’s a failure to understand this historical
imbeddedness that leads the explanatorist model astray. That model carries with it the threat of a return to the philosophers’ paradise – to a dialectical terrain in which we treat human exceptionalism as a standing threat. And so, another way of describe my argument would be that it aims to show that human exceptionalism in the explanatorist’s method is precisely what leads to the threat of human exceptionalism in her metaphysics.

3.1: The Relativity of Explanation

What, then, is it that I’m referring to as the historical imbeddedness of explanation? And, how is it relevant for understanding what it is? To understand this, I will argue for and develop a view that I’ll call the relativity of explanation. By “explanation,” I mean a use of some proposition of the form ‘P because Q’ to explain.23,24 Given this, what I’m calling the relativity of explanation is, in its basic form, the claim that the correctness of any explanation is determined in part by the explanatory demands to which it is responding. And, as I will argue below, this relativity can be extended to those explanatory demands themselves. That is, various important features of any explanatory demand are determined by the situation in which we deal with it. And so, this situation itself partly determines what an explanation must be like in order to correctly respond to this demand.

3.1.1: The Relativity of Answers

We can understand the relativity of explanation by first considering a claim of which it is, I will argue, a special case – what I will refer to as the relativity of answers. This is simply the

23 It’s important to notice here that propositions of this form can be use for other purposes: to justify (i.e., such that ‘Q’ is given as a reason for the truth of ‘P’), not to mention to do the wide range of things that declarative sentences can be used for as such.

24 In many cases, we abbreviate a sentence of this form because it would be pedantic or verbose to state the full sentence – i.e., instead of saying ‘P because Q,’ we say ‘Because Q,’ or even simply ‘Q.’ Because of this, I will treat uses of these abbreviated forms of the relevant kind of sentence to explain as explanations in the present sense.
claim that the correctness of any answer – whether, as we sometimes say, it’s ‘really an answer’ – is determined in part by the question to which it’s responding. This is an observation that applies to questions quite generally. But in particular, even in cases where what's at issue is a factual question – i.e., one whose answer will be a truth-evaluable claim – it’s not sufficient for the correctness of the answer that it be true.

For example, if I ask you what time it is, you might be speaking perfectly truly by saying that it’s afternoon. However, if you know full well that I’m asking because I need to show up for an appointment at exactly 3pm, I’d nevertheless be justified in thinking you haven’t really answered my question. And if you remark – again, in complete agreement with the facts – that it’s unusually cold today, I can justifiably accuse you of having given an answer that isn’t just wrong, but downright unresponsive. You’ve given me some facts, but you haven’t given me the facts that you knew very well I was after.

To understand which facts I’m after in posing some factual question, you need to know at least two things. First, you need to know what we can call the object of my question: the subject matter I want to know something about. Second, you need to know what we can call the topic of the question: what it is I want to know about the object. Another way of putting this two-pronged point would be to say that in posing a factual question, I’m first of all honing in on some bit or aspect of the world. But more than this – since the facts there are to be discovered about anything in the world are potentially endless – I'm concerned to discover something specific about that bit or aspect of the world. Thus, a correct answer to my question must correctly construe both aspects of the way it hones in on the world. In the first unhelpful reply to my question above, your answer misconstrues the topic of my question – the specification I’m after
of the present time needs to be more fine-grained than the rough time of day your answer
provided. In the second unhelpful reply, your answer misconstrues both the object and the topic.

I take it that the relativity of answers is fairly obvious so far as it goes. And although I’ve
used the term “relativity” in my label for it, it’s clear that it involves no form of relativism by
which we’d have any reason to be troubled. In examples like the ones I’ve given, it’s clear that
the answer to a question is answerable to the world – i.e., that the world into which I’m inquiring
plays a key role in determining what the correct answer is. After all, when I ask you what time it
is, what I’m precisely after is to know a certain fact about the situation. But it’s just as clear that
the answer is also answerable to me – that is, insofar as it’s answerable to the question I’ve
posed. But to get a better handle on the relativity of answers, let me add some clarificatory
observations that will eventually bear upon the subject matter of explanation.

3.1.1.1: Implicit Questions

First, notice that the relativity of answers is completely consistent with the fact that an
answer can respond to a question that is implicit – i.e., that hasn’t been explicitly stated. One
way in which it can be implicit is that it's been formulated by a questioner, but remains unstated.
For example, an answer might be given in response to a look or gesture. You might still be
giving, even willfully giving an incorrect answer to my question about the time, even if I only
expressed it with a questioning or bewildered look. Questions are the sorts of things that can be
and remain implicit in this way, and we normally have great facility at dealing with situations in
which they are. But even when they are, they’re nevertheless partly determinative of what
counts as a correct answer.
However, the relativity of answers also holds in cases where an answer is given to a question that is implicit in another sense – viz, to one that is (as we sometimes say) ‘in the air’ but that hasn’t been clearly formulated at all, publicly or privately. Questions like this are common, even pervasive in everyday interpersonal life. That is, we're often so adept at coping with certain kinds of situations that we don’t need to go through the step of formulating a question at all – even privately. In such situations, one can often immediately jump to the answer that is demanded by the situation. But even here, it makes perfect sense to speak of right and wrong answers to the questions that the situation calls us to attend to.

For examples like this, we can turn to situations in which we've embarked on a collective endeavor – say, as members of a sports team working to defeat its opponents. Suppose that, in the heat of the game, I turn to a teammate who has possession of the ball and tell her that a rival player is sweeping in from her blind spot to wrest it from her. If we’re all seasoned and skilled players of the game, none of us need have formulated the question to which I’m responding – whether there are any threats to her possession of the ball just now. The need to do so, in fact, is the mark of a rookie. Instead, we experts at the game are familiar enough with it to have, at many moments, a kind of immediate understanding of what the situation of game play calls for – including what factual questions need answering.

But even in such cases, it makes sense to talk about giving the wrong response to the factual questions whose answers the situation calls for. In the present example, suppose I’d failed to do my homework on the makeup of the opposing team. Suppose that, as a result, I’d failed to realize that the fellow swooping in on my teammate is not only a very poor player, but also a player who's particularly bad at stealing the ball; so that, although he is sweeping in from
her blind spot, he isn’t really a threat. Instead, another player closing in on her is the real threat. In the locker room post-game analysis, our coach is justified in complaining that I didn’t answer the question that needed answering at just that moment. And it would be no objection to her complaint to insist that what I said was, after all, perfectly true. It’s crucial to the skill I failed at – successful communication with my teammates – that I not merely report any old truths about the game to them, but rather report truths that really answer the questions that need answering at the moment.

3.1.1.2: Vague Questions

Second, the relativity of answers is compatible with the fact that it’s sometimes unclear what question we’re answering. What I have in mind here isn’t simply the thought that we might be unclear exactly what question we’re responding to. To continue with the same example: surely no one would deny that your answer to my question about the time can be wrong, not simply when, but precisely because you thought I was asking wasn’t about our present situation, but rather about the setting of the novel we were just discussing. Instead, I have in mind the notion that a question partly determines the correctness of its answer, even in cases in which the question is, in an important sense, vague.

What do I mean here? We can understand the notion of a vague question by analogy to the notion of a vague predicate, as the latter is often discussed in metaphysics. A predicate is vague when there are cases in which it represents a vague property or relation, where a vague property or relation is one for which there are cases in which it’s borderline whether something bears it. To use a classical example: since baldness is vague – i.e., since there are many cases in which it’s borderline whether someone is bald – the predicate “bald” is vague as well.
On analogy, a question is vague when there are cases in which it’s borderline whether a particular answer to it is a correct one. A very straightforward example of a vague question is a factual one that asks whether \( a \) is \( F \), where \( F \) is vague, and where it’s borderline whether \( a \) bears it. However, putting aside any vagueness that might arise because a question's formulation employs vague terms or concepts, there's another important way in which a question can be vague. The sort of vagueness I have in mind, which I will describe presently, is the one with which we’ll be concerned below; and for that reason, I’ll refer to it simply as the phenomenon of vague questions.

In many situations, it’s clear that whether an answer to a factual question I’ve posed is correct is dependent on what I need those facts for – i.e., whether it’s correct depends, in part, on whether it serves the end that drove me to pose the question in the first place. In our time example, a particular practical concern drives me to ask you the time – my need to be completely prompt for my appointment. But, as is often the case, although this need is quite concrete, there is a certain amount of vagueness in what would successfully satisfy it – in particular, in what knowledge would enable me to make my appointment on time. In the present situation, there are answers you might give for which it’s borderline whether you’ve specified the time at the level of precision I need. For example, it might very well be borderline whether telling me that it’s 2-ish is suitable: we can easily imagine a situation in which you give me this answer precisely in order to be mischievous – i.e., in order to give an answer that isn’t exactly helpful, but that isn’t exactly unhelpful either. Because it’s vague whether this answer is suitable for my needs, then since the correctness of an answer depends on whether it’s thusly suitable, it’s vague whether it really answers my question.

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However, an answer to a question that's vague in this sense is nevertheless subject to the relativity of answers. To see this, we need only notice a general fact about vague properties. That is, a vague property – i.e. one that allows for borderline cases – must nevertheless allow for cases that aren’t borderline at all. For example, there are borderline cases of baldness; however, the property of baldness clearly allows for cases in which someone is completely bald, and ones in which someone isn’t bald at all. If there weren’t non-borderline cases, it’s difficult to see how what we have on our hands could be a property at all. Or to put the point in another way: a borderline case of being F is precisely a case that lies at a strange point on a certain continuum – viz, a point between things that are uncontroversially F and ones that uncontroversially aren’t.\footnote{Here’s another, \textit{reductio} argument against the possibility of vague properties that only allow for borderline cases of themselves, inspired by a suggestion given to me by Constantine Sandis in private correspondence – namely, that the impossibility of such a property really has to do with something like self-reference. Let F be a property that only allows for borderline cases of itself – i.e. that satisfies condition C: something is F iff it’s a borderline case of F. If some particular \textit{a} is F, it is therefore a borderline case of F. However, \textit{a} is then \textit{not} a borderline case of F, since it satisfies C, and C is a sufficient condition on being F. But \textit{a} can’t both be and fail to be a borderline case of F, and so the assumption for \textit{reductio} must be false.}

This is equally true for vague questions. That is, some answers to a vague question will be uncontroversially correct, and some will be uncontroversially incorrect. For example, it’s quite clear that if you tell me that it’s 1:32:45, your answer is more than precise enough to be suitable for my purposes. And, it’s quite clear that if you tell me that it’s afternoon, your answer isn’t. From these examples, it’s equally clear that, although there are borderline cases like the one above, there are nevertheless conditions on what counts as a correct answer to a vague question – specifically, ones stronger than that the answer simply be true.

The kind of vagueness I’ve described here is quite common: exploiting it's a familiar tool for creating various kinds of mischief, comedy, and dramatic irony. One of the reasons it’s so common is that what counts as really answering a factual question is always dependent on the
practical concerns that drive the factual questions we face. And it's equally dependent on the situations in which we pursue those concerns: i.e., the abilities and resources we have for navigating our environments; as well as the environments to which we must adjust our actions to achieve our aims, or else adjust our aims when achievement isn’t feasible. That is, we are always historically imbedded in a context of concern – one that shapes what we’re after when we target a bit of the world and pose, investigate, and answer questions about it.

These aspects of our situation – the historical imbeddedness of our questions and of us who deal with them – are conditions on inquiry. Although their presence makes for the standing possibility of vagueness in our questions (not to mention all sorts of difficulty in answering even the ones that aren’t), this presence isn’t a threat to inquiry as such, but rather what makes it possible. To pose a question is just to hone in on some bit or aspect of the world (the object of the question), and to seek after certain facts about it (the topic of the question). And it's always a particular context of concern that drives us to hone in on the world in the particular way we do.

And rather than being a threat to the objectivity of the answers we give to factual questions, the historical imbeddedness of our questions precisely enables it – i.e., enables us to attend to the world with enough focus to zero in on manageable territories of investigation. That is, our answers to factual questions are of course answerable to the world. But the issue that we must always settle is how we're going to hold ourselves answerable to the world – what it is in the world we're going to investigate and make claims about. A pure question – one that isn’t dependent in this way on the situations in which we deal with it – is not a real possibility.

We can lose sight of the historical imbeddedness of our inquiries when we attend to cases in which the question we’re tackling seems clear, and where mischief-making etc. aren’t on our
minds. In a case like this, the context of concern that drives us to inquire withdraws into the background, and we feel comfortable focusing our attention on getting at or reporting the answers we’re driven to seek. And as a consequence, we can be tempted by the thought that the formulations we have for our questions have an imaginary kind of determinacy – one in which the formulation, considered in isolation from its historical circumstances, explicitly dictates the conditions that an answer must meet in order to be correct.

But why accept this view? Why think that questions are historically imbedded in the above sense? Or to put the question in another way: why think there can’t be pure questions? To see that our questions are always historically imbedded in the present sense, we need only to take note of the fact that the kind of mischief making you indulge in when I ask you the time is always a standing possibility. That is, it’s verbal mischief making of a particular, familiar sort – giving an answer that follows the ‘letter’ of my question, but not the ‘spirit.’

The sense in which your answer follows the letter of my question is that what my words ask for, so to speak, is the time, and you’ve given it. If I roll my eyes and complain that you’re being kind of tool just now, you can jokingly insist that you answered my question, exactly as it was stated. I didn’t explicitly specify, in my formulation of the question, the level of precision at which your answer ought to be couched in order to be really answering me. And this is likely because when I asked it, I was trusting that your knowledge of the circumstances that drove me to ask it would be sufficient for you to understand the spirit in which I posed it using this exact formulation – ‘What time is it?’ And as a matter of fact, you did understand all of this: you simply feigned misunderstanding for the sake of an irritating joke.

But suppose that – knowing now that you’re in a jokey mood – I do specify the level of
precision I was after. Suppose I say, “No really, what’s the time? And none of your games – I need the exact minute.” You can very well continue the joke, and go on to willfully misconstrue the object of my question rather than the topic: you could, for example, give me the time, precise to the minute, but the time in the setting of the novel we were just discussing. Or you could find an even cleverer (and more exasperating) way of misconstruing the topic – for example, by saying that it’s exactly 457 minutes after your alarm went off this morning.

Although this exchange is likely to end in my walking away in a huff if you continue your mischief making, this is no objection to the notion that it could nevertheless continue – mischief to the point of psychosis. And this is because no formulation of a question can sublimate from the context of concern in which its inquirers find themselves. That is, no formulation of it could dictate the conditions on correctly answering it so explicitly that knowledge of the circumstances driving us to attend to it isn’t required for arriving at such an answer. This isn’t merely an epistemic point. Knowledge of our historical imbeddedness as inquirers is required precisely because that imbeddedness partly determines what question is being asked using a particular formulation.

The mischief-maker who follows the letter but not the spirit of my question is employing a familiar comic technique – willfully misconstruing the historical imbeddedness of my question while ironically proclaiming fidelity to its explicit formulation. But putting aside duplicity of this kind, when we have certain sorts of clarity about our inquiry, aspects of our historical imbeddedness tend to withdraw into the background, and knowledge of the background circumstances doesn’t strike us as something we need to reflect on. And as a result, we can easily overlook its crucial determining role. We have a handle on what we want to know about
which things, and we just go about the business of getting ourselves that knowledge. Of course, in going about this business, we will of course attend to the circumstances of inquiry – after all, one aspect of those circumstances is the object of the question, and we need to attend to that to answer it. But there’s an important distinction between that ‘what’ and the ‘how’ of a question – i.e., what question is being asked versus how to answer it. And in cases where we’re clear on the ‘what,’ we often attend to the circumstances only insofar as it bears on the ‘how.’ The ‘what’ is clear, and so the historical imbeddedness of the question isn’t an issue for us.

3.1.1.3: Inarticulate Questions

A question’s being implicit is distinct from its being vague: explicit questions can be vague, and questions that aren’t vague can be implicit. But it can also be both. Of course, there are questions that are vague, but also implicit in the first sense discussed above – i.e., in the sense of being privately formulated, but not explicitly stated. In the time example, your response that it’s 2-ish would have been just as borderline if I’d only expressed my question with a look. But my particular concern in this section will be another important class of questions to consider: ones that are vague as well as implicit in the second sense I mentioned above – i.e., ones that are unformulated, not just in the sense that they haven’t been explicitly stated, but also in the sense that they haven’t even been clearly formulated in private. These are what I will call inarticulate questions.

To understand the sub-class I mean here, the first thing to notice is that the second sort of implicitness admits of degrees. That is, it’s possible to formulate a question more or less clearly. And this is sometimes because we’re not, as we sometimes say, entirely sure what question we’re asking, investigating, and trying to answer.
Imagine, for example, another player in the sports example from above – the lone rookie amidst experts. As a rookie, he lacks the immediate sense for how to take in the situation that his expert teammates possess. And so, as he plays the game, he finds himself in the tense and unpleasant circumstance of perpetually trying to figure out what it is he needs to understand about what's going on around him just to participate. Imagine he is caught in a particularly difficult moment in the game, sensing that certain questions about the situation need answering for him to respond to it, but with only a dim understanding of what those questions are. He’s inarticulate – not in the sense of being unable to verbalize questions he has formulated successfully, but rather of being unable to articulate these questions even to himself with enough clarity to help him cope. As a result, he stumbles through the situation incompetently.

In the case of this rookie, it’s likely that the expert players by which he’s surrounded would be able to formulate the questions he’s struggling for with ease – although, experts that they are, they don’t need to. However, in many cases of this sort of inarticulacy, it isn’t that there's a fully determinate question driving our inquiry, but one that we happen not to perceive clearly just now. Very often, that is, there’s an important sense in which the question itself is inchoate, in which arriving at a formulation that will be useful in guiding our inquiry is a matter, not of discovering a question already in play, but of shaping one that is nebulous into a determinate form. In other words, in these cases, our inarticulacy is due to one of the aspects of what I’m calling the inarticulacy of our questions – their being implicit in the second sense to one degree or another. If we take on the project of articulating a question that's inchoate, we work towards questions that are less and less implicit in this sense – i.e., towards formulations that are more and more determinate – i.e., in the sense that they help us get a better and better
handle on what we're asking – until we finally have one on our hands that is suitable for our needs.

One situation in which we find ourselves trying to give determinate form to an inchoate question is in philosophical inquiry. A thought occurs to me while thinking about some other subject matter – perhaps even one that I’m considering in some everyday context seemingly distant from the seminar room or writing desk. It suddenly grips me. I think to myself “That’s quite an interesting thought” – interesting in that peculiar way that philosophers find certain ideas interesting. That is, it has something to do with the sorts of things with which I occupy myself when I’m reading, writing, and talking about philosophy.

However, I’m unclear on just why it’s interesting. I sense that it will help me figure something out, but I don’t yet know what. In other words, it strikes me as being a potential answer to some philosophical question, but I can't clearly formulate which. Now, to be clear, the scenario I have in mind isn’t one in which I sense that this thought might be useful in some future philosophical inquiry – something to tuck away in the mental cabinet so it’s ready to pull out should it come in handy. Rather, imagine that there’s a question nagging at me to which this thought seems an answer. Yet, I can’t quite formulate it yet, except in a very crude way.

The experience here is similar to the sort we have when we’re trying to recall something, but can’t: “It’s on the edge of my tongue – wait a minute, it’ll come to me.” But in the present case, what’s happening is quite different from these cases. I might very well say, “I’m not sure what question I mean to be asking here.” But formulating that question isn’t a matter of examining my desires – as if I simply needed to remember something about my own psychology that I’ve forgotten for the moment. Instead, the question itself is inchoate, and part of the work I
need to do is to articulate it – to give it more determinate shape.

Even as I work my way to less and less implicit versions of the question that’s on my mind, the question itself is likely to be vague in the sense discussed above. As I struggle to get a clear sense for it, I might, for example, move back and forth between different possible formulations of both the thought that struck me and the question to which I feel it responds – a back-and-forth process of negotiation and re-negotiation. Some of the former will strike me as clearly having gone too far off course; and while the question remains hazy, some of them will be borderline. And this is because the question itself is still only honing in on the world in an unfocused way. In fact, it's just this lack of focus that I'm trying to remedy in my attempts to articulate.

But as this process continues, it would be wrong, even though I’m in the proverbial armchair, to suppose that the process here is one in which the context of concern in which I find myself isn’t in the background, driving the inchoate question I’m struggling to clarify. In fact, it's at times like these that the historical imbeddedness of our inquiries often becomes clearest. That is, when we're in these situations, we often find ourselves asking what desires, needs, and features of our circumstances are driving the inquiry in the first place. And this is because reflecting on the situation in which we inquire is precisely a means to giving more definite shape to the inquiry itself.

For example, in the present situation, I could of course simply stipulate what question I will henceforth treat my intuition as addressing. But this would be effectively abandoning my attempt to articulate the question that is in fact nagging at me. If I carry on with this attempt, it would be perfectly natural for me, in order to sharpen this hazy question, to think about what
kinds of philosophical issues have been on my mind, what books and articles I've been reading, what films I've been watching, what classes I've been teaching, what issues have been looming in my personal life – any of the features of my circumstances that it occurs to me might be there, brewing beneath the surface and driving me to be gripped by this inarticulate question. This examination of my circumstances, again, need not be undertaken with a view to unearthing some question – as if it's already there in my mind, fully formed but hidden. Rather, when I'm trying to articulate an inarticulate question, the examination serves another purpose entirely: I turn to my historical imbeddedness, not to discover, but rather to shape an inquiry I've already embarked upon.

Now, although I've used a particularly philosophical example, it would be wrong to suppose that these experiences are confined to the rarefied atmosphere of philosophical reflection. The kind of inarticulacy here is one that we might feel in any situation where we butt up against the frontiers of an investigative endeavor. And when we find ourselves driven by an inarticulate question while participating in a tradition of inquiry – philosophy, chemistry, mathematics, and so on – resolving our inarticulacy often involves not simply reflecting on our own individual circumstances, but on the coordinated efforts of others who participate in the same tradition.

If, for example, I'm a mathematician asking what numbers are, I might very well feel that my question is still inchoate – though it has a rather straightforward expression, that expression seems to under-determine the question I'm using it to pose. And as a result, it's quite natural to find myself wondering, not simply about my local needs and circumstances, but about the community of inquirers of which I am but an offshoot. What particular kinds of things have we
(i.e., we mathematicians) wanted to accomplish in asking these sorts of questions? And what hopes, needs, and circumstances have driven us to pose these kinds of questions? By mulling over these kinds of issues, the mathematician can give her question a more determinate form precisely by situating herself more clearly in the tradition in which she participates.

In any of these cases, to ask “what do we want out of the answers to these questions?” isn't to attempt to stipulate our answers to them – any more than it's to stipulate the questions we're asking. Rather, what we're doing is trying to reflect on and make clear what kinds of facts it is we want to discover – to focus the objects and/or topics of the question we're posing. Once we achieve that focus, the world, of course, might not cooperate. For example, if the mathematician ends up asking what set of first-order axioms entail all and only the mathematical truths about natural numbers, it will turn out that, given the way the world is, there are no facts to discover of the sort that she's looking for. And in that case, she's likely to reflect again on what it is that she and/or number theorists more generally have wanted when asking what numbers are – i.e., in hopes of re-focusing the question in a way that won't lead to a similar dead end.

Now, based on the parallels here to the lone rookie from our sports example, we might be tempted to describe such cases of inarticulacy as ones in which inquiry breaks down – except, that is, for the fact that these moments of inarticulacy are often the engine driving expansion and change: in the inquiries of the lone individual, or even at the frontiers of a tradition of inquiry (e.g., a science). And I think this is because it's always part and parcel of any project of inquiry to concern ourselves with the historical imbeddedness of the inquiry itself. This concern is explicit in various circumstances – when things break down, or when we try to articulate previously inarticulate questions. But what is explicit in those cases is implicitly operative in
any other case of inquiry. We're always situated in some particular context of concern, a set of circumstances and a history that generates an inquiry – i.e., that drives us to hone in on the bits or aspects of the world that we do when we pursue that inquiry.

Let me summarize the claims I’ve argued for in 3.1.1. I began by arguing for the relativity of answers in its basic form: i.e., for the claim that what counts as the correct answer to a question is dependent both on its object and its topic. I extended this claim by arguing that what a question is asking – what its object and topic are – is dependent on the context of concern in which we deal with it. Together, the question and its context of concern constitute what I was calling the historical imbeddedness both of the question and of we who are dealing with it. This dependence of answers on historical imbeddedness is, I argued, compatible with a question’s being implicit, vague, and even inarticulate. In fact, it’s when a question has these properties that the relativity of answers and the historical imbeddedness of the questions to which they respond can become clearest.

I’ve devoted so much attention to the relativity of answers because, as I will argue, by understanding how it applies to explanations, we will be in a position to understand why the particular brand of rationalism espoused in the explanatorist model is false – specifically, how it amounts to an illegitimate attempt to project epistemology onto the metaphysics of Nature. The next step, then, is to understand why the relativity of questions can be extended to explanations, and what light this relativity sheds on them.

3.1.2: Relativity and Explanation

To begin with, the relativity of explanation is simply a special case of the relativity of answers. This is because an explanation, as I am using the term, is, in its basic form, a response
to a question – more specifically, a “Why?” question. That is, when explaining, we're always attempting to answer some question or questions of this sort. The next task, then, is to understand what form the various features of questions that I’ve discussed above take in the context of explanation. In particular, we need to understand how the historical imbeddedness of explanations and the questions to which they respond bears upon understanding what they are.

We can get a handle on some important aspects of the relativity of explanation by first considering some general features of the questions to which they respond. First, as in the case of any question, “Why?” questions have an object and a topic. The object of a “Why?” question is some state of affairs – i.e., something that can be expressed using some declarative sentence. More specifically, the object of a “Why?” question is what would be expressed in the explanandum of an explanation that correctly answers it. For example, the object of “Why did the car stop?” is the car’s stopping. Thus, any explanation that really answers this question would be of the form “The car stopped because…” 26

The topic of any “Why?” question is what I will call the explanatory demand that the question brings to bear on its object – what facts we’re after concerning the object that we’re attending to in posing the question. It’s in this sense of “explanatory demand” that the relativity of explanation holds – i.e., that the correctness of any explanation is in part dependent on the explanatory demands to which it’s responding. The relativity of explanation, that is, is simply a special case of one aspect of the relativity of answers – specifically, the dependence of a correct answer on topic of the question to which it responds.

To better understand the latter dependence, the first thing to notice is that the object of a “Why?” question doesn’t by itself fix the explanatory demand being brought to bear on it. In

26 Or, an abbreviated version of an explanation of this form. Cf. note 2.
general, there are many kinds of things we might want to know about a state of affairs we’re attending to, depending on the situation in which we find ourselves. And more specifically, there are many truths expressible using a proposition of the form “P because…” that we might want to know about the fact that P, depending on the situation.

Suppose that we’re driving down the street, and the car suddenly putters to a halt. We become anxious at the possibility of arriving late to the wedding we were driving to, and so we immediately set ourselves to getting the car up and running again. While we look under the hood, I ask, “So, why did the car stop?” We can imagine many explanations whose expression would be strictly speaking true, but that wouldn’t really answer the question I’m asking. And this can, in particular, be so because you misconstrue the explanatory demand that’s in play.

For example, suppose that you – sarcastic and mischievous as you are – say “Because the Earth’s gravity caused pressure between the tires and the pavement, resulting in friction.” The sentence you’ve uttered here is perfectly well true. In particular, it’s a perfectly true statement concerning the object of my question. The car’s stopping does in fact stand in the relation to the Earth’s gravity etc. that you’ve described.

Further, we can easily imagine a context in which the explanation you’ve given using this sentence would be exactly the right one to give – i.e., in which you correctly use it to respond to a particular “Why?” question. For example, suppose that the teacher in a high school physics class shows his students a video of our unfortunate breakdown, and then asks them why the car stopped. If the topic for that day’s class is friction, the same answer you gave to me might very well be the exact right answer to give to him.

However, when you use it to respond to my question in the car, it’s clearly wrong.
You’ve honed in on the right object (the car’s stopping), but not the right topic. In other words, you’ve misconstrued the explanatory demand I was bringing to bear on the car’s stopping – which facts of the form “The car stopped because...” that I wanted to know. For although the physics teacher and I hone in on the same object using the same formulation in our respective questions, we're bringing very different explanatory demands to bear on it. In other words, we want to know very different things about the car's stopping.

The point I’ve made here is simply a special case of one I made above when discussing the relativity of answers – namely, that it isn’t sufficient for a response’s being a correct answer to a question that the sentence used is true. It isn’t even sufficient that the answer hone in on the correct object and says something true of it. The relativity of answers involves, in general, not just dependence on objects, but also on topics – in the particular cases we’re attending to presently, on the varying sorts of explanatory demands we can bring to bear on an object.

So far, we’ve only considered one aspect of the way in which our historical imbeddedness determines the correctness of an explanation – the relativity of explanation in its basic form, so to speak. We can go on to extend this story in the way that I extended the story about questions generally speaking above. That is, just as is true for any question, what counts as a correct answer to a “Why?” question depends on the context of concern in which it’s historically imbedded.

For example, our situation when the car breaks down is analogous to the one in which I asked you for the time. That is, what counts as a satisfactory answer in each case is determined by the practical aims that drove me to pose the question, what I need to achieve those practical aims in the situation, and what resources are available for doing so. And this is because the
needs of the situation determine what question it is I’m asking. In the car example, the aim that drives the question is clear: to get this damn thing running again so we make it to the church on time. Because of this, it isn’t sufficient for your explanation’s really answering my question that it use some true proposition of the form “The car stopped because…” What you need to do is to serve up an explanation that furthers these practical aims, given the situation we’re in.

The determinative role of the context of concern in which we face a “Why?” question is easy to overlook when we face a situation using a settled body of knowledge, with settled techniques for arriving at the explanation we seek; and when our aims are stable and we’re experienced at pursuing them. In such situations, the context’s role – i.e., in determining what counts as a satisfactory explanation – can easily withdraw into the background. Suppose, for example, that a car mechanic seeks to explain why a certain car is running poorly and making a strange noise. In the ordinary case, what the point of such an explanation is won't be at issue – it will be clear that she needs it to effectively repair the car. And, she will have a settled, regularly used body of knowledge about how cars work, as well as a fund of techniques and tools with which she deals on a daily basis available to her. When in these circumstances, the question of how this context of concern determines the explanatory demands she's bringing to bear on the situation before her will seem idle, merely theoretical.

However, the context's determinative role is more likely to become apparent when we face situations in which our explanatory endeavors are in a state of uncertainty or flux – when the “Why?” questions we’re posing are inarticulate to one degree or another. In such situations – as in any case of such inarticulacy – we’re often faced with the task of turning back to the context of concern, and negotiating our way to more determinate questions and formulations of
questions by re-conceiving our relation to that context. We’ll ask ourselves what it is we want to
accomplish in explaining the states of affairs were attending to in the situation we’re in. As in
the examples I brought up in the discussion of inarticulate questions above, in these sorts of
situations, our unclarity about the bits of the world we want to explain is a symptom of our
unclarity concerning the project of explanation we’re tackling, and/or the situation in which
we’re tackling it. And to overcome this unclarity, examining the context of concern often seems
the o just what's called for.

We now have the resources we need to turn, finally, to the objection from explanation. As
I’ve said already, since the objection presupposes the explanatorist model, I will mount a
counter-objection by arguing that this model rests on an error. Specifically, I will argue that
given the historical imbeddedness of explanation, we have no reason to accept the explanatorist’s
two-step abstraction. That is, we have no reason to think that to understand the unity of Nature,
we need to abstract away from the rich variety of facts there are to know about Nature and the
things in it, and attend only, in the first instance, to the truths available to us in a systematic
physics.

3.2: Explanatorism and the Relativity of Explanation

How, then, does the historical imbeddedness of explanation bear upon the explanatorist
model? To answer this question, we must turn to the project of a systematic physics that the
explanatorist elevates and ask: what sort of context of concern is it in which such a project
develops? As I will argue below, by asking this question, we can gain some critical insight into
the two-step abstraction that the explanatorist undertakes, impressed as she is by the
understanding we stand to gain from a systematic physics.
3.2.1: Coordinated Explanations

Of course, ultimately, this question isn’t one to be settled from the philosophical armchair. Rather, it’s one for historians of science to address. After all, the project of developing a systematic physics is one that unfolds and evolves over the course of concrete human history. Scientific explanation in general arises – like any explanatory endeavor – from a context of concern. In the case of this particular endeavor, the context is particularly complex and spans a large swathe of human development. Therefore, we’d need to examine this history in order to responsibly make pronouncements about it – i.e., on the changing practical aims that have driven the project at various times and places, as well as the shifting circumstances that have generated those aims, and in which the wide variety of explainers that have participated in the project have pursued them.

However, I believe we can say something general about this project’s context of concern, just based on the sort of endeavor it is. For the project of a systematic physics represents just one of the most ambitious forms taken by a certain, more common kind of inquiry that we often pursue. We don’t exclusively deal with questions on a one-off basis. We frequently undertake lines of questioning in which what we seek is for certain kinds of connections among the results of our inquiry. That is, we seek, not simply to find answers to various questions, but for the answers to be coordinated in certain ways – with each other, and with the situations in which we find ourselves. In such cases, what we need from an answer to one question depends on what we need from the answers to others, and vice versa. And this is because of what drives us to pose these questions in the first place.
We can find simple examples of this need for coordination in cases where we ask a number of questions for the sake of getting the answer to a single, overarching one. For example, when we're formulating a strategy for the game, and the coach asks what kinds of maneuvers would successfully undermine the distinctive skill set of a champion player on the opposing team, this inquiry subserves a more general one: how do we win this game? And thus, suppose I responded by citing a play that we ourselves are completely ill-equipped to execute. In such a situation, although my response would be faithful to the letter of the question, I’d be completely missing the spirit in which it was posed. In this sense, I wouldn’t have really answered the coach’s question: it's simply one of the many he and the rest of us will be asking in order to formulate a game-winning strategy. And thus, mentioning a play that we can’t execute is irrelevant to the over-arching question to which this particular question is harnessed.

In situations like this, the answers to the many questions we ask and investigate must not only be sensitive to the needs driving the master question to which they're subservient, but also to each other. To take a variation on the present example, suppose that, in response to the coach’s question, I suggest a strategy that would not only undermine the skill set of the opposing champion, but is also one that our own skills would allow us to pull off. I might nevertheless still be missing the mark – specifically, if the strategy I suggest won’t fit together with our overall plan for winning the game.

Another way of putting this would be to say that in our efforts to figure out how to win this game, we end up addressing not simply this one question about a particular member of the opposing team, but a host of others: questions about the other members of the opposition, their coaching staff, the nuances of this playing field, the weather, our own abilities, and so on. And
for us to successfully formulate the game-winning strategy, we must achieve various kinds of
coordination among our answers to these various questions. Indeed, this coordination is part of
what we’re after in posing them. None of the questions we’re attending to as we confer with our/coach is an island. The need for coordination among them – for example, among the various
local strategies for dealing with this or that aspect of the game we’re facing – is part of what
makes our endeavor here a line of inquiry rather than a motley series of one-off questions.

Here, we can press the same kind of point I’ve pressed a number of times already:
nothing I’ve said poses any relativistic threat. We don't stipulate, but rather search for such
coordination among the answers to factual questions, and whether the search is successful
depends on the world we're examining. When the coach asks about the champion opponent, his
question is a factual one. Thus, it’s a necessary condition on any answer’s being a correct one
that it be true. In this sense, the correct answer is answerable to the world being described.

But as before, the story doesn’t end here: to understand what would count as a correct
answer to the coach’s question, we must understand which truths he’s after in posing it.
Specifically, he’s not just after just any old way we can undermine the champion’s skills, but
specifically one that will cohere with all of the other aspects of an overall game-winning strategy.
This need for coordination, in fact, makes a correct answer doubly answerable to the world: not
only must the world be a certain way for it to be true, but more than this, the world must be a
certain way for a correct answer to achieve the kind of coordination desired. For example, it
might just turn out that there just isn’t any way we can meet the challenge of the champion’s
skills without also leaving ourselves fatally vulnerable to the other opposing players – and
ultimately, to defeat. In this sense, the world we’re coping with might very well make the kind
of coordination we seek impossible. And this will perhaps move us to revise our aims as inquirers – for example, to stop our search for the game-winning strategy and look for a way to force a tie.

What is true of questions in general is true of “Why?” questions: we don’t simply seek explanations on a one-off basis. We sometimes undertake explanatory endeavors that involve our asking and investigating many “Why?” questions. And in many such cases, we seek certain kinds of coordination among our explanations. Specifically, we often look for general explanatory strategies: for example, styles of explanation and/or principles that we can use, not simply for a single isolated case, but for a range of cases.

This search for explanatory coordination is one of the things that ties would-be explainers together into relatively close-knit traditions of inquiry – e.g., disciplines like chemistry, biology, and economics. Such disciplines are partly characterized by a common set of subject matters, related questions about those subject matters, and attempts to coordinate explanatory strategies in various ways – e.g., to find principles and styles of explanation we can use to investigate the things we’re collectively interested in and answer the “Why?” questions we pose about them. This is just one variation on the aim of looking for coordination among the answers to various questions we’re posing. That is, to apply a single set of principles and/or style of explanation to explain a range of cases is for those various explanations to be coordinated in a certain way with each other: they all have in common a single technique or a unified body of techniques that is used to formulate them.
3.2.2: Systematic Physics and Coordination

How do these facts about complex lines of inquiry shed light on the project of formulating a systematic physics? This project precisely aims for something like maximal coordination of various kinds among our explanations of things in the world around us. The unity of explanation we seek when we take on this project, in fact, just is a kind of maximal coordination. Someone who wants to formulate a systematic physics is simply looking for an explanatory strategy with which we can explain anything that is or happens in Nature – a set of principles and/or kinds of explanation that apply across the board, wherever we turn in the world around us. It’s in this sense that the project represents the most ambitious form in which we might pursue an aim that we pursue in many other ways – coordination among our explanations.

Now, if we were to discover certain principles and/or styles of explanation that afford us this sort of maximal coordination among our explanations of things in Nature, this fact about them would make them quite significant. That is, to achieve this kind of coordination is, it’s fair to say, an epistemic feat of a sort that we seek with respect to fairly discrete subject matters all the time. What are sometimes called the ‘special sciences’ are collective attempts to achieve such coordination with respect to discrete sectors of Nature. When these attempts succeed, we have on our hands one of the distinctive epistemic feats that sciences can accomplish. But a systematic physics would achieve this same kind of feat in a striking and dramatic way – it would succeed at finding a single strategy for explaining the vicissitudes, not simply of this or that discrete subject matter, but of everything in the world around us. It would do this by discovering just the kinds of truths about the world that, together, allow us to achieve this thoroughgoing coordination.
Nevertheless, to look for the kind of maximal explanatory coordination sought in a systematic physics is simply one among the many explanatory demands we bring to bear on the objects of our “Why” questions. Sometimes we seek coordination of some particular kind among our explanations, sometimes we don't. Sometimes we look for one degree of coordination among our explanations, sometimes another. Whether we find such coordination among our explanations is of course dependent on the world – on whether we can discover ways in which things in the world are related to one another that will allow us to achieve the aim of explanatory coordination. But that such truths would achieve the kind of explanatory endeavor we've set out on – this is due to the fact that we've set out from particular contexts of concern that have driven us, not simply to discover any old truths of the form “P because Q,” but to discover ones that will facilitate our explanations' being linked together in the relevant ways.

The contexts of concern that lead us to seek the particular sort of coordination that the explanatorist values – a single set of principles and/or coordinated techniques for explaining a subject matter – might of course vary, depending on the circumstances themselves. However, there are some fairly obvious advantages that explanatory coordination offers us that frequently play a role in many other cases. For example, when we have explanatory strategies that can be deployed to explain a wide range of cases, this affords us ways of developing reliable techniques of explanation – i.e., ways of formulating true explanations without so to speak ‘reinventing the wheel’ each time. It also affords us the ability to transmit techniques of explanation to each other in a regularized way – bodies of knowledge we can teach to each other, and that allow for easier communication among would-be explainers. The beginning student of a science, for example, is simply one among many – i.e., someone who enjoys, in the education she receives, some of these
benefits of coordination. Because a whole tradition of inquiry and explanatory coordination stands behind her, she can simply receive her training in a regimented, manageable form.

In circumstances where the foregoing concerns are operative, they are features of our historical imbeddedness – of what aims drive us to pose the questions we do, and of what the circumstances in which we pursue those aims precisely are. The maximal coordination sought in a systematic physics is maximal in the sense that the unity of explanation it aims at amounts to a single technique of explanation that can apply, not simply to this or that sector of Nature, but to absolutely everything that is or happens in Nature. And it's here where the impressiveness of the epistemic feat that it would accomplish lies. That is, what would be impressive about a systematic physics is that it would achieve, with respect to everything in the world around us, something we normally achieve – often at great cost – only with respect to local sectors or aspects of that world.

But though the level of ambition we exhibit when we bring this particular explanatory demand to bear on some state of affairs is lofty, it's nevertheless a particular explanatory demand, the product of particular contexts of concern. And, this is something we shouldn't lose sight of when trying to understand the kind of epistemic feat we accomplish when we satisfy this demand. We can see how this is so by returning again to considerations that pertain to inquiry in general.

The number of truths about Nature that are open to discovery is endless. When, at the conclusion of some particular inquiry, we discover some such truth, we might very well describe the epistemic feat we've achieved in just this way: the feat we've accomplished is to have discovered some truth. But this, by itself, is a myopic description. We discover truths all the
time, very often without having undertaken any inquiry in particular: we can usually discover an indefinitely large number of truths by simply opening our eyes. The feat we've accomplished when we successfully conclude some inquiry, however, involves something more. We've honed in on some bit or aspect of the world, and successfully sought to discover some particular things about it. Thus, our success lies not simply in having discovered some truth or other, but in accomplishing the specific truth-seeking endeavor we set out on. The nature of the feat is, in this sense, relative to the inquiry whose success is the feat.

When we turn to the specific case of explanation, there's an endless number of truths of the specific form “P because Q” that we might likewise discover about Nature. Which ones we take an interest in depends first on our being disposed to seek explanations, as well as on the explanatory demands that we bring to bear as would-be explainers; and these facts about us, in turn, depend on the contexts of concern that drive us to inquire on given occasions. The epistemic feat we accomplish when we give a successful explanation using one of these truths is not simply that we've discovered some such truth, but that we've discharged the specific explanatory demand with respect to the specific object on which we've brought that demand to bear.

The demand to formulate a systematic physics, again, is an ambitious variation on a kind of explanatory demand we bring to bear elsewhere. But as with any endeavor to explain, it's a quite particular demand, one that arises from a particular set of circumstances. Bringing such a demand to bear is the province of a certain kind of theoretically inclined mindset – one we might have or lack depending on who we are, or the time and place in which we find ourselves trying to explain this or that.
This is easier to lose sight of in the case of a systematic physics. When we bring to bear the explanatory demand involved in such a physics, there's of course an important sense in which we're trying to take a view on Nature as a whole. Nevertheless, to bring this demand to bear is – like any other inquiry – a search for specific facts about Nature that serve particular purposes for us. For example, if it turns out that exceptionless natural laws will play an absolutely central place in a systematic physics, then these truths are indeed special. But their specialness would lie in the fact that they allow us to achieve a particular explanatory ambition – maximal coordination among our explanations of things in the world.

And to say this does not in the least challenge the objectivity of natural laws: throughout the discussion, I've been presupposing that for an explanation to be successful, the proposition we use to explain must be true. It simply amounts to the claim that although the endeavor to formulate a systematic physics aims to take in Nature as a whole in a single view, it nevertheless aims at knowing very specific truths about Nature as a whole – truths that fulfill very specific ambitions.

As is the case with inquiry in general, the role of our historical imbeddedness in determining why we bring the explanatory demands to bear that we do is easy to overlook when we're in a context where we don't need to reflect on this imbeddedness in particular. Consider again the beginning student of a science – say, chemistry. Training this student requires passing on to her a certain body of knowledge, a regularized toolbox of techniques for applying that knowledge to discover and explain the science's subject matter, and very often, a fairly regimented set of circumstances in which to apply those techniques. In her high school chemistry class, she might for example be asked to explain why the pH of the clear fluid in a
certain beaker is base. She interacts with the beaker in carefully controlled circumstances – with certain materials available to her for her task, and a body of chemistry principles she's been taught all semester.

In this situation, the stakes of the student's attempts to explain are relatively clear to her. To put it bluntly, her task is to give the sort of explanation the teacher is looking for – a 'chemical explanation.' That is, he's looking for her to use the knowledge and materials he's passed on to her in ways that he's prepared her for.

But behind this very brief description is a much more complicated story. In looking for a certain sort of explanation, the teacher is attempting to integrate the student in a certain ongoing tradition of explanation. In this tradition, many people have asked many questions about related subject matters, and – often in communication with each other – have attempted to develop shared strategies of explanation: principles and styles of explanation by which they can coordinate their explanatory efforts, and which they can use to communicate to one another, and pass on to others to carry on the tradition. The student doesn't have this complex context of concern in view – and doesn't need to do so to accomplish her task. And thus, for her, much of what there is to say about the historical imbeddedness of chemistry and its role in determining the question she's being asked to answer will seem irrelevant.

In fact, if she finds herself very impressed by the scope and power of the knowledge and techniques in which she's being trained, she might therefore be tempted to accord a kind of absolute status to them. Unaware of the very specific explanatory ambitions that she implicitly inherits from a certain scientific tradition through her teacher, she might find herself thinking that one doesn't really understand the substances that make up the world unless they know these
truths and have mastered these uses of those truths to explain. For example, it might come to seem to her that water's having the structure 'H$_2$O' is a truth that in itself is elite, whereas the fact that there's very little water in the town reservoir just now is relatively superficial – a mere anecdotal truth about the vicissitudes of water.

But this would involve her in a certain kind of confusion. She would be confusing a distinction between understanding in general and a kind of understanding that is very special to her for a distinction between superficial understanding and real understanding. Of course, there really is a sense in which the fact that water is H$_2$O is much more special that the fact about the reservoir. It's special to her – and to a wider community of inquirers – because knowing it is much more central to the explanatory ambitions into whose orbit she's been drawn by her teacher. What she fails to recognize is that the seeming superficiality or depth of certain truths about substances in the world isn't superficiality or depth in some absolute sense, but rather superficiality relative to particular projects of understanding – projects that are no doubt quite important in human life, but particular projects nonetheless. Unreflective as she is about the particularity of the project of which she's now a participant, she mistakes the relative for the absolute.

Although the particularity of the projects of understanding we undertake can – as in the case of the student – go overlooked, when we skirt the edges of an explanatory endeavor – when our questions are inarticulate; when we aren't students receiving a settled body of knowledge and toolbox of techniques, but rather scientists working at the leading edge of a discipline; when the task involves coordinating our own efforts with those of other explainers and groups thereof – this historical imbeddedness becomes more obvious. The chemist who is doing cutting edge
work, or who is trying to situate her work in relation to that of colleagues in the biology or mathematics departments might very well find herself struggling to engage with and understand the specific shape of her own project of understanding – what kind of question she's asking when she wonders why a certain process has occurred, and/or what needs are driving the question.

3.2.3: The Explanatorist Projection

How, then, do the foregoing considerations bear upon the explanatorist's two-step abstraction? By thinking that we don't really understand Nature's unity in any other way than by formulating a systematic physics, the explanatorist likewise elevates this particular epistemic feat to a kind of absolute status, as if the theoretician's desire to understand – with its particularly ambitious drive for explanatory coordination – is the only game in town: the only way we get real (as opposed to superficial) understanding of Nature and how it hangs together. She fails to appreciate not only that many understanders can, perfectly legitimately, fail to share in this ambition, but also that the circumstances that have led us to want a systematic physics involve a particular history, and particular human longings.

As in the case of our over-enthusiastic student, there's a kind of hubris involved here. This hubris might very well be blameless – the product of a failure to reflect on the particularity of the position we inhabit as inquirers. But it's a kind of hubris nevertheless, and at each step of the abstraction.

The first step, recall, is the elevation of explanation above all other kinds of understanding and knowledge of Nature. That is, the explanatorist accords a higher status to our knowledge of truths expressible using propositions of the form “P because Q” than to knowledge of other kinds: it's through such truths that we really understand the things explained. The
second step lies in further elevating a particular sub-class of truths about Nature and the things in it – specifically, those that have a place in the unified explanatory framework of a systematic physics – to a yet higher status: it's through these truths that we understand the unity of Nature.

Of course, there's no denying that very often, formulating an explanation of something we encounter strikes us as more important than simply rattling off a seemingly arbitrary list of truths about it. And since we frequently seek to coordinate our explanations in various ways and to varying degrees all the time, a systematic physics is likely to strike us as an impressive accomplishment. However, significant though they are, these epistemic feats are feats simply because we aim for these kinds of knowledge and find them necessary or simply useful for coping with things in Nature. The epistemic feat here just is the feat of having answered certain “Why?” questions in which we're interested – i.e., having discovered certain facts that, given our makeup and situation, we've been driven to seek.

The hubris in the explanatorist's maneuver lies in the fact that she misrecognizes the sources of her own dissatisfaction. She is dissatisfied with simple knowledge – knowledge of any of the vast variety of truths there are about things in Nature. That dissatisfaction arises from a particular set of concerns – a longing to know certain kinds of things about Nature and the things in it. Not just any old truth will satisfy the drive to seek the explanations we do. However, legitimate as this longing is, and grounded as it is in how Nature has shaped us to have it, the explanatorist goes astray precisely by projecting facts about it onto Nature itself. She'll concede that although there's some sense in which any knowledge of things in Nature is knowledge of how things therein hang together, we get something more from explanations, and yet more from elite classes thereof. But she loses sight of the fact that the something more we
get from certain truths of the form “P because Q” is that they help us succeed at answering the particular “Why?” questions we're driven to ask. Because many truths just aren't suited to answering those questions, she takes the former to be, in themselves, second-class truths – superficial understanding, so to speak, of Nature and how it hangs together.

I'm calling this a form of hubris precisely because in her two-step abstraction, the explanatorist has inflated the kind of over-enthusiasm of the student into something much larger. That is, the student is simply ignorant or unreflective about a certain history and how it's behind the scenes, guiding what she does – namely, the history that puts in place the particular explanatory demands that she inhabits when she participates in a certain scientific tradition. But the explanatorist veritably reifies this unreflective stance into a full-blown metaphysical view. By projecting epistemic distinctions between truths onto Nature itself, she de-historicizes human endeavors, and ends up with a picture in which Nature's structure functions as a mirror in which the certain theoreticians can recognize their own ambitions.

In doing so, it might be thought that the explanatorist endows those ambitions with a certain kind of dignity: for her, Nature itself so to speak puts its seal of approval on our historically generated distinctions between more and less important truths. But the obverse side of this conception would be the notion that we denigrate that knowledge by historicizing qualitative distinctions between truths. By noticing this, we can appreciate why this is a distorted conception of the dignity of our knowledge.

That is, to claim that the global facts we would get onto in a systematic physics are just some among the facts that we might be interested in as explainers is not a criticism. It doesn’t at all denigrate any of the explanatory ambitions we pursue to claim this, let alone the particular
ambition to formulate a systematic physics. To acknowledge the historical imbeddedness of any of our inquiries is never an indictment. It might very well be because of inescapable features of the human outlook that we seek after coordination among our explanations of things in Nature. It might even be because of inescapable features of the human situation that we need to aspire to such coordination to a maximal degree to cope with the predicaments we're faced with. But it doesn’t follow from any of this that the endeavor of achieving such systematic knowledge is absolute in the sense I’ve discussed.

Conversely, it's a mistake to think that the kind of de-historicizing maneuver undertaken by the explanatorist endows our knowledge with a sort of dignity – except, that is, on the presupposition that we endow human beings with a special sort of dignity by embracing human exceptionalism. But what reason is there to accept this presupposition? We don’t gaze onto the world, trying to encompass it from some position outside it – investigating and understanding it from no historical position whatsoever. Rather, we’re swept by the currents of a natural history that shapes our practical aims, the situations in which we pursue them, and the resources we have available to do so. And this is simply part and parcel of the fact that natural history shapes us to be the beings we are. Thus, to think that cutting ourselves off from this history endows us with a kind of dignity is manifestly not to employ a conception of human dignity. At best, it employs conception of divine dignity – the dignity characteristic of a being whose nature it is to be outside Nature. But it's completely unclear whether attempting to bestow the dignity characteristic of divinities upon human beings amounts to bestowing dignity on them at all – anymore than attempting to bestow on us the dignity characteristic of horses does.
3.3: **Explanatorist Rejoinder**

At this point, it's worth considering a historically important rejoinder that the explanatorist might deploy against the counter-objection I've been developing. The basic form of it is this: the explanatorist will claim that, while it may be true that one of the important values in a systematic physics is that it facilitates explanatory coordination, the features that lead her to accord it an elite role in understanding natural unity have nothing in particular to do with this.

That is, the explanatorist can complain that the reason a systematic physics would give us a special handle on natural unity is that it would achieve something like explanatory completeness. That is, once we have a systematic physics, we have something like a complete explanation of everything that is and happens in Nature. And for this reason, with such a 'theory of everything' under our belts, we would in a certain sense be done understanding what things in Nature are like or how they relate to one another.

Of course, having a systematic physics wouldn't give us omniscience about Nature. We're finite creatures, and so there are innumerable truths about Nature and the things in it that we don't know – truths about things that were and things that are that we either don't have access to or simply haven't bothered to find out. And of course, Nature is in many respects constantly changing, and so there will always be new truths about it coming into being, awaiting discovery. And so, in an important sense, a systematic physics would still leave us having to continue going about our business expanding our understanding of Nature.

However, with a systematic physics, we would be in the happy position of having a certain kind of understanding even of the innumerable truths about Nature that we don't and can't know. Such a physics would again be a framework we can use to explain anything in Nature.
Thus, it would, in principle, give us the means to explain any of the ways that Nature might develop in the future, or any of the ways it has developed of which we're at any given time unaware. In this sense, a systematic physics would give us a view on and understanding of, not only all the things that were and that are in Nature, but also all of the things that will be. And it's in this sense that it gives us a handle on how Nature hangs together that is unavailable through any other means.

It's perhaps a matter of simple historical circumstance and/or the particular constitution of human life that we happen to be interested in acquiring this sort of understanding, or that acquiring it would give us an especially wide-ranging form of the explanatory coordination we seek in order to serve various practical aims. But this, the explanatorist will complain, is beside the point she's trying to make: for her, the special handle on Nature's unity that a systematic physics would give us is a matter, not of these purported virtues, but of the explanatory completeness just described.

To understand how this rejoinder is misguided, let's turn again to considerations pertaining to inquiry and explanation, generally speaking. First of all, the explanatorist is wrong in thinking that we can understand the notion of explanatory completeness independently of the explanatory demands we bring to bear when we seek explanation – i.e., that the significance of those demands in virtue of our historical imbeddedness is 'beside the point.'

One of the features that an explanation has to have in order to be correct is to be complete. But as with other aspects of explanatory correctness, whether an explanation is complete depends on the explanatory demands to which it’s responding. To see this, we need only to notice that the notion of completeness, as we apply it to explanations, is not a property of
the sentences we use to give them. When our car stops while we drive to the wedding, you might answer my question by telling me that you absentmindedly forgot to put gas in the car this morning. And in that situation, this explanation is exactly the right one to give. In particular, once you give it, you’re done – your explanation is complete. Nothing more needs to be said in response to my query – we can now go about the business of fixing the problem that prompted the question in the first place. However, if we were in an automotive engineering class, you might well have been laughed out of the room with that answer. Whether your explanation is complete is dependent, not simply on the truth of the sentence you use, but also on the explanatory demand to which your explanation responds. As before, this simply means that it's dependent on which truths we who bring the demand to bear want to know about things.

But couldn’t we say that, for example, your explanation of the car's stopping is a correct answer to my question, but nevertheless incomplete? That is, we might come to the table with a picture according to which completeness is a property that is attributable the various propositions of sets of propositions of the form “P because Q” that we use to formulate our explanations, in and of themselves. It's just that in many particular contexts, we don't aim for such full-on completeness, but simply for some knowledge that is, so to speak 'complete enough' – i.e., which tells us enough of the ideally complete story to serve the purposes of the moment.

For example, in the car example, we might think that to completely explain the car's stopping, what's required is a full causal explanation. A full causal explanation would be 'gapless' – i.e., it would give us the complete chain of events whose causal result was the car's grinding to a halt. True: in the context of trying to get the car running again, there's an important sense in which we only need bits of that full explanation to be done explaining the car's stopping
in a satisfactory way. However, this simply means that an incomplete explanation is, in this situation, a satisfactory one. It's in this sense that in the situation, a partial causal explanation is 'complete enough.' However, though it's complete enough for us, it isn't strictly speaking complete.

We can see why this defense fails in general by considering how it fails in the latter instance. To accept the above picture of your explanation of the car's stopping already presupposes something crucial. That is, it already presupposes a certain project of understanding which, for certain purposes, would require a gapless account of the causal chain leading up to the car's stopping. And indeed, this is something we might want. But under what circumstances?

We'd first have to find ourselves seeking an explanation of the car's stopping i.e., to know certain truths of the form “The car stopped because...” But a truth of this sort is, of course, just one among the many kinds of things we might want to know about this event. Our musician friend in the back seat might think to himself that an explanation of the car's stopping doesn't help him understand what's occurred at all. Suppose he has no particular interest in getting to the wedding, but rather takes an interest in this event because of the exotic sound the engine made when the car stalled – a sound that his musical ear finds aesthetically pleasing. While we busy ourselves under the hood, he might fancy to himself, music-obsessed as he is, that we're like two philistines who can only appreciate the fine wine for the confidence it gives us to flirt. We're missing the point entirely, he thinks to himself.

And of course he's in a certain sense right. We have indeed missed his point – which is to say that our project of understanding at the moment isn't his. Thus, it's perfectly understandable if he concludes that we don't really understand the car's stopping: that is, the things we're
concerned to find out don't, as a matter of fact, really pertain to what he wants to know.

However, it would involve himself in an important confusion to think that we've made some mistake in endeavoring to arrive at a certain kind of explanation of the car's stopping. He would be elevating his own project of understanding to an absolute status.

However, we would be making the same kind of mistake in elevating our interest in explaining the car's stopping in the same way. That is, if we were to look at him – still sitting in the back seat, meditating on the sonic architecture of the sound he's just heard – and think that he's made the mistake of occupying himself with facts about the car's stopping that are superficial, we would simply be confusing the standards imposed on us by our inquiry for absolute ones.

But suppose we put these considerations – which bear upon the first step of the explanatorist abstraction – aside. Still, supposing that our concern is to seek explanations, there's always the matter of what kind of explanations we're seeking. Perhaps it's true that for certain purposes, we specifically seek causal explanations of the things that happen in the world around us. And relative to a particularly ambitious search for causal explanation, the explanation you give for the car's stopping might seem only partial. Specifically, it might be thought that a full causal explanation of the sort that we would ideally seek for the purposes of natural science would be a gapless causal one. This, in fact, is just the sort of thought that recent philosophers of mind have deployed to wreak havoc for other forms of explanation. But of course, causal explanations – let alone of the ambitious sort that certain natural scientists sometimes seek – are merely some among the various kinds of explanations we seek for things in the world around us. Philosophers have sometimes suggested that complete explanations of this kind are 'all we need'
to understand why things in Nature occur. But this simply presupposes what I've already
criticized – the idea that the specific kinds of explanatory demand we bring to bear on the world
are privileged in an absolute sense.

Surely, a gapless causal explanation of some event's occurrence would indeed be special.
However, it wouldn't be special in an absolute sense, but only relative to certain explanatory
ambitions. For reasons I've discussed, it might make perfect sense to make these ambitions our
highest priority in something like the way that our musician friend in the car does. It might, for
example, turn out that formulating a systematic physics will require us to develop explanatory
resources precisely sufficient for giving a gapless causal explanation. But if we were to turn to
the explanation you give of the car's stopping and claim that it's a partial form of the explanation
we want to give, we'd involve ourselves in the same sort of confusion our musician friend does
in the car example. Looking at that explanation, it will strike us as a merely incomplete version
of the explanation we seek. But this is a kind of projective illusion, for your explanatory
ambitions aren't ours.

3.4: The Unity of Nature and Explanation

What picture of the relation between Nature and explanation are we left with, then, if we
resist the explanatorist projection? As before, I believe we are left with the common ground,
Spinozist view. For the Spinozist, there is indeed a deep unity between Nature and explanation.
And there remains for her an absolutely crucial sense in which we don't fully understand natural
unity unless we have a grip on explanation – including the kinds of epistemic feats afforded to us
by the various kinds of explanations there are.

For the Spinozist, the unity between Nature and explanation is twofold. First, among the
things there are to discover about Nature are the specific truths about relations between states of
affairs discoverable through true propositions of the form “P because Q.” Coming to know these
truths genuinely is coming to a better understanding of Nature as a whole and how it fits
together. But they don't have unique or even privileged standing in this regard – except, that is,
with respect to our particular makeup as inquirers and knowers. And the same is true of that elite
sub-class of truths that make up the maximally coordinated system of explanation we would have
in a systematic physics. Such truths are hard-won. Getting onto them and fitting them into a
unified explanatory framework would be an astounding epistemic feat. But this special status is
one they would have only relative to our own epistemic ambitions.

This brings us to the second crucial respect in which explanation and Nature are, for the
Spinozist, unified. The fact that we have knowledge of certain truths that we get onto when we
formulate successful explanations is itself a relation between things in Nature – i.e., between
ourselves and the various states of affairs in Nature that we grasp when we have that knowledge.
And, the fact that certain of the relevant truths have a privileged epistemic status for us, given the
projects of inquiry we're driven to pursue: this is the product of how Nature has formed us – to
have a cognitive makeup of a specific kind, to have ways of life that drive us to seek certain
kinds of knowledge in our inquiries.

In this sense, epistemology is a branch of, not a prolegomenon to, the science of Nature.
To put this second point a little differently: to say that certain truths are only privileged relative
to our own makeup doesn't involve us in any alarming form of relativism – as if human beings
stand outside of Nature, imposing our own particular interests on it from some place outside of it.
Rather, the fact that we human beings have developed so as to take special interests in certain
kinds of facts in varying situations is itself the product of natural history. Whenever we pose a factual question, we set ourselves the task of discovering particular things about the world around us. And the fact that we do is simply the result of how Nature has formed us. In other words, in taking note of the relativity of answers and its particular application in the relativity of explanation, we've simply understood more facts about Nature – about how it has given rise to beings that seek certain kinds of truths about it, precisely because it has shaped them in the way that it has.

And this is the sense in which there is a deep, inescapable unity between Nature and explanation: both the truths we know when we formulate correct explanations and the historically imbedded processes by which we come to formulate them are products of Nature. The explanatorist's project is one historically prominent instance of an ambition characteristic of metaphysics in the philosophers' paradise: to understand what it is to be part of Nature through an investigation of and theory about the conceptual architecture of our discursive practices. But for the Spinozist, understanding what it is to be part of Nature just is understanding Nature. For her, there isn't any sense in which studying the nature of Nature is separable from simply studying Nature – something we do in a vast variety of ways, with a vast variety of interests and needs driving us to study in those ways.

There are indeed many situations in which it makes perfect sense to say that some particular facts 'really' tell us how the things we're attending to in Nature fit together. And, there are many situations in which it makes perfect sense to say that some truths about the things we're investigating are 'superficial,' while others are 'deep.' But we fall off the rails when we think that such statements are true in any other way than relative to the standpoint of we historically
situated human beings. This is true, even in cases of features of the human standpoint that are pervasive and indispensable for us – as no doubt explanation is.

As I discussed above, philosophers have sometimes been prone to thinking that we elevate the human standpoint when we de-historicize it and project it onto Nature. But for the Spinozist, this is not so much an elevation as a kind of superstition – one that, instead of positing otherworldly and inhuman forces, precisely posits otherworldly human ones. Careful reflection on inquiry of the kind I attempted above can reveal to us what makes us vulnerable to this sort of superstition. That is, there are many cases in which furthering an inquiry precisely requires us to allow its historical conditions of genesis to remain in the background – something we don't attend to because doing so would distract us from the task at hand. But when we adopt a view of inquiry in which what is often implicit gets erased from the picture entirely, what we effectively do is to place the human standpoint outside of Nature, gazing in. We make ourselves otherworldly, extra-natural beings. And since the explanatorist model presupposes this de-Naturing of human inquiry in the methodology it suggests for understanding natural unity, it's human exceptionalism in her method that leaves her vulnerable to human exceptionalism in her metaphysics.


  - "Knowing One's Own Mind.” In *Subjective, Intersubjective, Objective* (New York: Oxford University Press, 2001), pp. 15–38


“The Union and Interaction of Mind and Body (part 2).” In ibid., pp. 101 – 104.

“The Unity of Descartes's Man.” In ibid., pp. 15 – 32.


