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Empirical Realities? A Question of Basic Principle

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This article is a response to John Perry and Joanna Leidenhag's book, *Science-Engaged Theology*. In this response, I focus primarily on the basic principle of science-engaged theology laid out by the authors on the first page of their book. Specifically, I invite both the authors and readers to think more deeply about (1) what it means to make scientific claims, (2) what it means for something to be an empirical reality, and (3) from what fields of study the insights of empirical investigation stem.

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John Perry and Joanna Leidenhag's book *Science-Engaged Theology* is an accessible and entertaining introduction to an emerging field of study, showing how the discipline of science-engaged theology is both traditioned and new. I can say with honesty that I enjoyed reading this little book, and if I have a complaint that is really more of a compliment, it is that the book is too short. It constantly teases a much fuller and more interesting story lurking behind each little titbit of information given to readers. Helpfully, in the book, which is available in both print and digital editions, they reference and link to many of these bigger stories.

In my response, I focus primarily on the basic principle of science-engaged theology laid out by the authors on page 1. Specifically, as it is obvious throughout the book that the authors have put considerable thought into this, I invite both the authors and readers to think more deeply about (1) what it means to make scientific claims, (2) what it means for something to be an empirical reality, and (3) from what fields of study stem the insights of empirical investigation. Even though it is obvious that Perry and Leidenhag have thought much about this, it is my contention that by the end of the book, it is still unclear what is meant by an "empirical reality." A less charitable way of characterizing my response is that I am here to quibble about the basic principle laid out on page 1. Here, the authors say the following: "The basic principle of science-engaged theology is that whenever theologians make claims about created, empirical realities, they should incorporate the insights of empirical investigation into their analysis" (Perry and Leidenhag 2023). This is, in my reading, related to the opening line of the second paragraph on the same page, where they say, "theologians make scientific, or science adjacent, claims all the time."

To quibble with the basic principle may seem perhaps churlish, or invite the speculation that a certain respondent did not manage to make it through the whole book. And, of course, a basic principle by definition cannot express nuance. Yet, these questions about the basic principle are important because the basic principle is what readers are going to take away long after they forget (or never read in the first place) the nuance of the following chapters. To be honest, I find myself asking these questions because I think they are fascinating and I do not myself clearly see an answer, even though I will offer a rough sketch of an alternate position.

In connection with the two aforementioned first-page quotes, I want to pose several, somewhat related, questions:

1. What is an empirical reality (as opposed to a nonempirical reality)?
2. What is empirical investigation, and how does this relate to empirical claims (as opposed to nonempirical investigation and nonempirical claims)?

3. What is a scientific claim, and how does it relate to empirical reality or empirical claims or the insights of empirical investigation? What is a science adjacent claim?

In addition to these questions, I must admit the desire to quibble about another term in the basic principle: whenever ("*whenever* theologians make claims about created, empirical realities"). But why? The scientific method(s) is one way of knowing about sin or an ocean or pregnancy or the human mind, but hardly the only way of knowing. There are also poetic, artistic, logical, intersubjective, and other modes of knowing. In fact, if one were to write a womanist account of theological anthropology, would one really want to turn to psychology, a field that not only has an acknowledged replicability crisis, but even more importantly, an acknowledged race and class issue? Similarly, there are good reasons to avoid scientific and medical data when writing on pregnancy. Is one really "pruning," the metaphor of choice in the section on accountability to the sciences in Chapter 5 (Perry and Leidenhag 2023, 57), or is one instead capitulating to a different lens that has, both historically and in the present, distorted women's realities and ignored women's experiences? While Perry and Leidenhag are right to reject Wittgensteinian fideism, it is nonetheless true that there are competing accounts of the human and that much if not most scientific and medical writings on pregnancy begin from the assumption that pregnancy is the gestation of a fetus in a container, not the intersubjective relationship between mother and child. What would empirical accountability then look like for that latter claim?

It is important to note that the authors are adamant that scientific methods of knowing are not the only ways, nor the only valid ways, of knowing, and they are adamant that theologians must remain theologians. To be clear for those who have not read the book, nowhere do Perry and Leidenhag suggest that knowledge gained from the sciences should get a trump card or that the sciences should be given a special verificatory role. In fact, the authors write: "Science-engaged theology does not imply that all theological claims need to be verified, or even corroborated, by the sciences in order to be meaningful or rational" (Perry and Leidenhag 2023, 4). But I still question the use of "whenever." That said, what is meant by this "whenever" depends significantly on what is meant by "created, empirical realities," and what it means to make claims about them. To say that theology as a discipline must engage with the sciences is different than saying every theologian must engage with the sciences on every topic of inquiry, but it is the latter that seems implied by the basic principle.

This is not to argue against the idea of the natural sciences as ready resources for theological study, including in womanist projects or theologies of pregnancy. The projects named and briefly described in the friendly blue boxes throughout this book beautifully demonstrate that recourse to scientific knowledge can be

very helpful and even necessary for many theological projects. A softer version of the basic principle is also given several times in this book: the authors encourage theologians to ask "what [scientific] methods or tools could help me improve this claim I am making about the world?" (Perry and Leidenhag 2023, 1, 8, 48). Nor is this to argue with Perry and Leidenhag's insight that many of our concepts are entangled, as they put it, "that cannot be understood as either scientific or theological in meaning and origin, but only as both" (2023, 13). As a side note, I appreciate that the authors strengthen this connection by naming the logical corollary to this, which is that scientists should then incorporate theological and philosophical reflections in their work (2023, 16).

Further, in posing these questions, it is necessary to acknowledge the reasons, which become obvious throughout the book, for why there is no definition for terms like "scientific" and "science" given in the introduction. As Perry and Leidenhag demonstrate throughout the volume, science (and theology, for that matter) is not a transhistorical and transgeographical *thing* whose universal essence can be found and objectively defined. Thus, there is no simple definition of "science," nor even "the scientific method," to be offered up here without vastly misrepresenting the regional, historical, and disciplinary complexities of the natural sciences.

But while the authors of this volume spend considerable time nuancing the definition(s) of science, and exploring some of these historical, regional, and disciplinary complexities, they do not explain what it means to make a scientific claim, and they leave essentially uninvestigated the meaning of "empirical," "empirical reality," and "empirical investigation."

To lay my cards on the table in a simplified form, I present the following argument, which is perhaps an alternative or counter-position to the basic principle laid out in this volume: that what makes something a scientific claim is not the subject matter—whether sin, anthropology, or ecclesiology—but rather that the claim is made using (or based on) scientific methods. Thus, against Perry and Leidenhag's (2023, 1) claim on the opening page of their book that "theologians make scientific, or science adjacent, claims all the time," I argue that theologians rarely make scientific claims, even though they make claims about objects and subjects about which the sciences also make claims. (As an aside, is that what they mean by science adjacent?) Similarly, perhaps what makes an empirical claim is that it is made using empirical methods, though it is not yet clear what it is meant by empirical methods. Perhaps a better way of asking it is this: Is "empirical" a type of reality or is it a method(s) of coming to know? Is it a category of objects or a category of epistemology? The Peter Godfrey-Smith passage they quote suggests the latter (Perry and Leidenhag 2023, 50).

Here is another way of saying this: scientific (or empirical) knowledge is really helpful, depending on the question. It is the question that is the operator, not the "reality." This is because, of course, reality is not given in

experience but in answers to questions. Unless we are naive realists, reality is not already out there waiting for us to discover, as it were. There is abstraction that does not make recourse to empirical datasets; however, it is not the reality (object, topic) about which one is asking that is or is not empirical but rather the mode of questioning.

So let us return to those questions I raised near the beginning of this response. First, what is a "created, empirical reality?" Is there a difference between created and empirical? That is, is there anything created that is nonempirical? (I.e., is the empirical/nonempirical simply the same as creator/created? If so, why say both in the basic principle?) What would be the alternatives? Is there also uncreated, empirical reality? One could argue, perhaps, that God is an uncreated, empirical reality, in that God is uncreated, and people can experience God. In fact, people even use scientific methods to investigate these experiences. Why, then, is this not included in the basic principle? Is there, on the other hand, created, nonempirical reality? Here, one wonders what this would be—a created reality that cannot be experienced? But is there any reality that cannot be experienced?

This second example especially highlights the third question raised, which is about the relationship between scientific claims and empirical claims. Surely any person who has experienced God can make claims that rely on those experiences (the private, interior realities discussed in Chapter 5, for example). And people historically have made such claims, whether expressing their visions or artistically expressing their feelings of relationship with God, and so on. It is safe to say, though, that we cannot investigate God by the use of scientific methods but only the human experience thereof. Is this true then of all empirical methods, or just scientific ones?

What, then, is an "empirical reality"? Is it the same thing as just "reality"? In the final chapter, Perry and Leidenhag (2023, 64) offer the following examples of (theological) claims about empirical realities: "Spiritual practices, character formation, claims about sin, claims about other creatures, claims about church polity, liturgy, or sacraments, claims about the incarnation, about birth and death." Thus, we can reason that, according to this, the following are "empirical realities": spiritual practices, character, sin, other creatures, church polity, liturgy, sacraments, the incarnation, birth, and death.

However, two pages earlier, in a footnote, they characterize the claim made by some Thomists that God infuses the soul with feminine and masculine attributes that remain independent of, or perhaps an objective reality even among, the complexities of sex and gender, or rather as an excuse to ignore those complexities, as nonempirical (Perry and Leidenhag 2023, 62n189). Here, interestingly, Perry and Leidenhag offer this as an example of a nonempirical sign. Is this (the sign) the same as a reality or as a claim? But what makes this nonempirical? The context suggests that it is because it is not verifiable by empirical methods. But this presents a problem, I would think, for the

previously given list because many of the claims we make about birth and death and sacraments and so on are not empirically verifiable (at least according to scientific methods). So, what exactly makes this nonempirical? Is anything we say about the soul non empirical? Is the soul a nonempirical reality? Or would this example then be characterized as a non empirical claim about empirical realities? But again, what makes the object of knowledge here empirical?

Let us say, perhaps, that all created reality is empirical. There is good reason to make this claim, for is there any part of reality that we cannot experience? The list Perry and Leidenhag give in this chapter is pretty all-encompassing. Not only that, but as the authors make clear, our concepts are frequently (always?) entangled. It is hard to think of a concept that is not entangled, in that it would not be related to both scientific and theological claims insofar as they are claims about reality. This would mean, for the basic principle elucidated on page 1, that every claim a theologian makes ought to incorporate the "insights of empirical investigation." Is it really the case that when I want to say anything about the world theologically, I should or must include the sciences? But it does not seem like the authors want to make this claim, or maybe I misunderstand, when they say that "[s]cience-engaged theology does not imply that all theological claims need to be verified, or *even corroborated*, by the sciences in order to be meaningful or rational" (Perry and Leidenhag 2023, 4, emphasis added).

Left unanswered still is the relationship between this verification or corroboration by the sciences with the insights of empirical investigation. In other words, this leads back to the question about the relationship between empirical and scientific: not all empirical investigation, one would think, is scientific investigation. Surely a painter painting a scene is also conducting an empirical investigation. So are philosophers and theologians when they reason on an *a posteriori* basis. So, does this basic principle also apply to the arts, for example? The artistic modes of coming to know represent an important depiction of empirical reality that can maintain a multiplicity of meanings, which are inherently more flexible and all-encompassing than scientific claims. I imagine that Perry and Leidenhag would not mind this as a corollary basic principle, though outside the scope of this work, since they speak many times of how theology relies on many different sources. Theology is inherently promiscuous.

But to return to this question of the relationship between the empirical and the scientific, when looking over the many instances of "empirical" throughout this book, the implication, I believe, whether intended or not, is that "empirical" and "scientific" mean the same thing. One can look, for example, to passages where the authors use such terms as "empirical sciences" and the "methods of empirical investigation" contrasted with the methods of scriptural investigation, and again "empirical studies" (Perry and Leidenhag 2023, 52–54, 63). In these contexts and others, the authors switch back and forth between "science/

scientific" and "empirical" in a way that suggests that these terms mean the same thing. So, while Perry and Leidenhag are commendably careful not to talk about "scientific realities," at least so far as I could find in the book, and have a careful and attentive nuanced view of science, they essentially smuggle in the concept of scientific reality and its attendant scientism through the use of the word empirical. One of the questions I put to them, then, is whether they would consider this paraphrase of the basic principle acceptable: "[w]henever theologians make claims about created, *scientific realities*, they should incorporate the *insights of scientific investigation* into their analysis."

By way of conclusion, then, I simply repeat the proposal made earlier: there is no such thing as a "scientific reality" nor "empirical reality" as if these were a question of object. That is, there is no object whose investigation makes it inherently scientific or empirical. Rather, what makes something a scientific claim is not the subject matter (whether sin, anthropology, or ecclesiology) but rather that the claim is made using scientific methods. About what exactly an empirical reality is I remain (curiously and delightedly) in the dark.

Reference

Perry, John, and Joanna Leidenhag. 2023. *Science-Engaged Theology*. Cambridge: Cambridge University Press.