**The Architecture of Human Knowledge: A Brief Examination of Three Leading Theories**

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**Abstract**

Until fairly recently in the storied history of epistemology, it was believed, widely and almost uncontestedly, that the architecture of human knowledge was such that our beliefs rested on an ultimate, self-justifying bedrock of truth. But with the rise of the modern age via the Enlightenment, there arose in tandem certain thinkers, most notably René Descarte, who began to object that this foundation is simultaneously far smaller and far stronger than it was originally thought to be. Thus, according to this new view, the foundation for human knowledge doesn’t turn out to support very much, but what it *does* support, it supports all but invincibly.

Descartes’ system provoked a number of detractors who, instead of returning to the old view, began to question not only whether any such foundation existed at all, but whether one was even necessary. Their project, instead, was to dispense with the idea of a justifying foundation altogether, formulating in its place a system in which the only thing needed to justify a belief were other beliefs. As we will see, this move has proven calamitous to their pursuit of truth and clarity.

In this essay, I intend to chart a course between Descartes and his detractors, addressing a few shortcomings of each, while aiming for something like that old foundational understanding of human knowledge. While the foregoing introduction is largely historical in nature, I will now focus predominantly on the ideas mentioned therein.

**Brief Introduction to Foundationalism Proper**

What Descartes and most foundationalists of antiquity would (arguably) jointly affirm is that all of our knowledge sits upon a foundation of *direct, basic,* or *self-authenticating* justification. It is this foundation’s very directness and basicality that renders it self-justifying. Put differently, this foundation does not need to be *inferred* from some other cause or belief;[[1]](#footnote-0) it simply *is.* Further, this means that, unlike the foundation, every belief which is built upon it *does* need to be justified via inference from a prior belief, and that prior belief likewise needs to be inferentially justified from yet another prior belief. This chain of inference can be traced all the way back to the foundation, ultimately making the foundationalist structure of belief *linear* in nature.

**Strong Foundationalism**

Descarte began to part ways with his foundationalist predecessors, however, over the question of what sorts of beliefs ought to be considered basic in the first place. I will be defending a particular form of foundationalism in this essay, but I want to briefly argue for why this form is preferable to its Cartesian counterpart. Descartes’ theory came to be known as *Strong Foundationalism*, so called for its notion that the only beliefs which can be rightly called foundational are those that are immune from any doubt or possibility of error. This, according to the theory, essentially limits basic beliefs to those about one’s own existence, a priori or analytic truths (which are necessarily true by definition), and one’s own states of mind, like what we seem to be feeling, smelling, hearing, remembering, or even believing.[[2]](#footnote-1)

Trouble quickly arises with this persuasion of foundationalism, however. For example, basic beliefs in one’s own mental states are not capable of saying anything about the greater external world: you might *think* you are seeing a blue car in front of you (a mental state), but it is certainly possible that you are suffering from a hallucination. Second, the inability to doubt a particular belief doesn’t, in itself, seem to be an adequate basis for justification. After all, what if I have hitched my psychological and emotional well-being so deeply to the fact of my wife’s love for me that now, for all intents and purposes, I am utterly unable to doubt that she loves me?[[3]](#footnote-2) Finally,[[4]](#footnote-3) if all justification really does derive ultimately from beliefs about what transpires in our own minds, then our ultimate foundation for knowledge shrinks significantly. For instance, let’s say you look out your window and see a tree with yellow leaves swaying in the wind. Under normal circumstances, it is unlikely that you would think, “it appears I am seeing something yellow and treelike,” and then infer from that belief that you’re actually seeing a tree. Instead, you would simply believe that what you’re looking at is a yellow tree. To be sure, the Cartesian would affirm that all of these beliefs are justified, but to deny the latter belief the title of *basic* is, frankly, to go against the grain of human intuition. In short, the Cartesians have asked for more than what justification requires.

**Modest Foundationalism**

In response to these issues, contemporary philosophers have formulated a less “demanding,” thus, more *modest* version of foundationalism which evades the pitfalls that the Cartesian variety typically falls into (arguably aligning themselves with a great number of foundationalists who came before Descarte when it comes to this particular issue). This evasion is based on 3 core claims: (1) Our everyday perceptual beliefs about the world outside of our minds do indeed count as justified basic beliefs. One general piece of evidence for this is that these beliefs are formed *spontaneously* and *immediately[[5]](#footnote-4)* without needing to be inferred from something else[[6]](#footnote-5). Of course, not *all* spontaneously-formed beliefs are justified. After all, I could hear someone walking through my front door and spontaneously believe that the person is my wife (as is the case the overwhelming majority of the time), yet it turns out to be someone other than her. Thus the need for MF’s second core claim. (2): It is unreasonable to require that basic beliefs be immune from *all* error. Instead, in the case of spontaneity, for instance, it is enough to say that our spontaneously-formed beliefs are justified *unless* we have undermining evidence against them. According to MF, while we can be mistaken in our perceptual beliefs, such mistakes are by and large an exception to the norm. MF is often associated with another belief known as *fallibilism,* as the two are complementary in nature.

Fallibilists deny that knowledge requires absolute certainty, thus affirming that it is compatible with the possibility of error. For example, suppose a man and his wife are leaving town for vacation, and the wife asks her husband, “Do you know if you turned the oven off?” The husband answers yes, and then the wife asks him if he is *absolutely certain*, and he concedes that he isn’t.[[7]](#footnote-6) The fallibilist would differentiate knowledge from certainty such that the wife is actually asking two different questions here. While it’s possible that the oven was left on, the husband has very good reasons for believing that he turned it off, and thus has knowledge. In short, the fallibilist claims that having excellent reasons for a belief is quite different than it being impossible for the belief to be false.

Lastly, (3) Nonbasic beliefs can be *inductively* inferred from basic beliefs without needing to be *deductively* inferred from them[[8]](#footnote-7) (deductions are restricted to only what *must* be true given certain observable facts, while inductions go beyond that to infer things that observable facts make *possible* or *likely*). To illustrate, let’s say you come across a man lying on the ground with a knife sticking out of his chest. You may *deductively* inferthat the man is dead from the fact that his heart is not beating, but you may *inductively* inferthat the man was murdered (and thus, did not commit suicide) from the fact that his fingerprints are not on the knife (of course, it is possible that he could have found a way to kill himself in this fashion without getting his fingerprints on the knife, but that is unlikely).

As with any philosophical theory, MF is not without its detractors. I want to briefly consider two central objections here. The first objection, stated frankly, is that nothing is basic. As we have seen, there are certain features of basic beliefs that distinguish them from nonbasic beliefs. Further, says the objector, since basic beliefs are supposed to point to truth, then whatever feature (F) that makes a particular belief (B) basic must also provide a good reason for thinking that it is, in fact, true*.* But if beliefs with feature (F) are highly likely to be true (as MF holds), then the believer must *first* be justified in believing that (F) points to truth. If the person cannot provide such justification, then the belief cannot be justified; but if he can, then such justification becomes a part of the overall argument for (B), and thus (B) turns out not to be basic. This means that no belief could simultaneously be basic *and* justified.

Essentially, the objector requires some sort of introspective, mediating belief *about* the belief in question, or about the reliability of the believer’s own perceiving abilities, for he or she to be justified. But the modest foundationalist would reply that there is a much more straightforward connection that obtains between experience and belief, such that it is not one’s ability to *consider* whether the belief points to truth that justifies it, but *the experience itself* that does so. Indeed, MF holds that our experiences count as evidence. For instance, if I feel the sensation of pain in my knee, I don’t have to somehow “step outside” of my experience to consciously affirm that said experience justifies my belief that my knee hurts; the sensation itself has already done that. In this way, the objector is essentially requiring an *extra* level of justification for experiential beliefs, thus the onus is on *him* to demonstrate its necessity.[[9]](#footnote-8)

**Coherentism**

The primary competitor to foundationalism is the *coherence theory* of truth.Coherentism takes a radical departure from the way foundationalism conceives of the structure of justification. Instead of a linear chain which terminates in an ultimate, justifying foundation, the conherentist holds that no such foundation is necessary at all. It is a mistake, on coherentism, to think that a belief can come *before* or *after* another belief in a justifying sequence, or that beliefs *beget* beliefs. Rather, the only thing needed to justify a particular belief are *other beliefs.* Indeed, it would be a categorical error of sorts to think that anything else could do so.

Instead of thinking of our beliefs as composing sequential chains, the coherentist imagines them harmoniously *agreeing* with each other, or *fitting together* as in a puzzle. Thus when a piece (or belief) is added to the puzzle, it must not take away from the coherence of the overall picture. There are some coherentists who require that a particular belief must fit with the *entirety* of the believer’s other beliefs in order to be justified; this is called a *pure* coherence theory. Most recognize, however, that it is highly unlikely for a person to have zero contradictory beliefs.[[10]](#footnote-9) Instead, the more popular theory is an *impure* account of coherence, in which a belief is justified only within a certain *subset* of beliefs which have been deemed relevant to it (the word *modest* also comes to mind here).

Having now looked at a coherentist account of the structure of justification, we will move to discussing the nature of coherence itself. What exactly does it *mean* for two beliefs to cohere with one another? You will likely get a different answer based on which coherentist you ask. At minimum, however, most would agree that any given network of beliefs must at least be internally *consistent,* logically speaking. This base standard fails, however, to serve as an adequate definition of coherence. After all, it is certainly possible that one could hold a plethora of beliefs which technically don’t contradict each other, but also have nothing to *do* with each other. You could hardly call that a coherent system.

In addition to logical consistency, many coherentists require that each belief a person holds must also be *explained* in some way by another belief held by that same person. As an example, suppose you and your friend are taking a stroll through the woods in late October. You both believe that there is an unusual abundance of acorns on the ground, and that there is a halo around the sun. Your friend, however, *also* believes that these two phenomena are signs of a bad winter ahead, something which you aren’t privy to. Thus, while you both have a network of beliefs surrounding the original two, your friend’s network is more coherent, because his includes beliefs which explain the original two.[[11]](#footnote-10) As a quick and concise summation of coherence theory thus far, it might be said that a belief is justified (1) if adding it to a relevant system of beliefs *enhances* that system’s coherence, or (2) if removing the belief *detracts* from the system’s coherence.

While coherentism may appear to be, *prima facie,* a compelling alternative theory to foundationalism, there are certain objections which arguably prove fatal to the coherence theorist’s pursuit of truth and clarity.[[12]](#footnote-11) The first of these deals with the question of demarcation. If we are going to base our justification for a particular belief only on a specific *subset* of other beliefs, as most coherentists do, then where do we draw the line around that subset, and *how* do we go about doing so? For instance, take the belief that bourbon is an alcoholic beverage. There are, initially, certain kinds of beliefs which are immediately relevant to this one: memory beliefs regarding what you’ve been told about bourbon in the past; beliefs about what various (putative) alcoholic beverages taste like, compared to what various (putative) *non-*alcoholic beverages taste like; and so on. But what about less immediately relevant beliefs, like ones about what alcohol is, or what a beverage is? We could even conceive of beliefs which are less relevant than these, but which still generally pertain to the original belief. Who’s to say where the cut-off line ought to be that divides what is inside the system from what is outside of it? It seems the coherentist cannot escape being forced to draw this line of demarcation arbitrarily, thus taking much of the wind out of his argument.[[13]](#footnote-12)

The second objection can be stated as a simple question: How does one go about comparing two different webs (or subsets) of belief so as to ensure that they don’t conflict with each other? It seems that whatever comparative rule or method one uses must also inevitably take the form of a belief itself, but on coherentism, that comparative belief must be a part of *its own* coherent subset of beliefs, which will also need justification, and so on. Thus the coherentist faces his own kind of regress, one no less vicious than that which the foundationalist is accused of.

The third and final objection to coherentism that I wish to highlight concerns the way in which this theory connects our beliefs to the external world. What do we make of observational input on this view? It seems that the coherentist cannot be justified in recognizing that a belief has resulted from sensory input except by appealing to a separate *belief* about this allegedly observationalbelief.[[14]](#footnote-13) Of course, this original belief would not *really* be observational in nature, since it would no longer be based on immediate experience, but on the relationship between the two beliefs. Thus the question of whether this “observational” belief was truly caused by the external world is unnecessary. If the system contains only beliefs about observational input, without beliefs about the reality to which that input *points*, then the believer will inevitably be isolated from that reality, left only with a myriad of fabricated, albeit internally coherent, fantasies.[[15]](#footnote-14)

**Conclusion**

Having now assessed a few of the most popular conceptions of the structure of justification, here are but a few concluding takeaways on how MF avoids the pitfalls of the other two:

1. On a proper understanding of Cartesian foundationalism, we are left with the unfortunate conclusion that hardly any beliefs we might have about the external world can be considered basic (or non-inferentially justified).[[16]](#footnote-15)
2. By taking beliefs about the external world to be basic, MF vastly expands the foundation beneath what we know about the world around us.[[17]](#footnote-16)
3. Lastly, by providing an adequate connection between our beliefs and our experiences of the external world, MF gives us a degree of access to reality that the coherentist simply cannot provide.

1. Richard Fumerton, *epistemology* (Malden, MA: Blackwell, 2006), 37. [↑](#footnote-ref-0)
2. Richard Feldman, *Epistemology* (Upper Saddle River, NJ: Prentice Hall, 2003), 53. [↑](#footnote-ref-1)
3. Feldman, *Epistemology,* 54. [↑](#footnote-ref-2)
4. These are certainly not the only problems facing the Cartesian view of justification. For further discussion, see Feldman *Epistemology*, 52-60. [↑](#footnote-ref-3)
5. For an extended discussion of immediate experience, see Laurence Bonjour, *Epistemology: Classic Problems and Contemporary Responses,* Second Edition (Lanham, MD: Rowman & Littlefield, 2010), 97-118. [↑](#footnote-ref-4)
6. Of course, justification also requires that we respond *in an appropriate manner* to our perceptions. For instance, if a perceptual expereince clearly indicates to me that the object I am perceiving is a red canoe, it would be *inappropriate* for me to believe that the object is a blue paddle boat. Other types of inappropriate responses can be supplied by the reader. [↑](#footnote-ref-5)
7. An adaptation of an example given in Feldman, *Epistemology,* 123. [↑](#footnote-ref-6)
8. Fedldman, *Epistemology*, 71-72. [↑](#footnote-ref-7)
9. Feldman, *Epistemology,* 75-77. [↑](#footnote-ref-8)
10. Such would be even more unlikely if we included those beliefs which a person does not currently hold, but would be *disposed* to believe if presented with them. This is an issue over which coherentists are very much divided. [↑](#footnote-ref-9)
11. Of course, the debate over what constitutes “coherence” in this context is ongoing. [↑](#footnote-ref-10)
12. There have been a number of concerns levied against coherentism that, while noteworthy and problematic, are ultimately not fatal. For a brief discussion of these, see Fumerton, *epistemology,* 46-47. [↑](#footnote-ref-11)
13. Some have responded to this objection by moving beyond the individual to say that a belief is justified only if it coheres with the beliefs of the rest of those in the believer’s *community*. This seems initially plausible, in that a community is potentially easier to demarcate (e.g., one’s immediate family, fellow class members at one’s school, those within a certain income bracket in a particular city, etc), but ultimately it just kicks the can farther down the road: (1) You would still have to demarcate *which* of the common beliefs of the community belong in the system; (2) You would still have to determine how big or small the community in question ought to be (e.g., why should we not include *extended* family in addition to immediate family?) Arguably, neither of these tasks could be done any less arbitrarily than in our initial case. [↑](#footnote-ref-12)
14. Bonjour, *Epistemology*, 195. [↑](#footnote-ref-13)
15. *Ibid.*  [↑](#footnote-ref-14)
16. Feldman, *Epistemology,* 78. [↑](#footnote-ref-15)
17. *Ibid.*  [↑](#footnote-ref-16)