

Foundations and Coherence

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1. The Epistemic Regress Problem

Suppose I believe that P, and I am asked why I believe it. I might respond by citing a reason, Q, for believing P. I could then be asked why I believe Q. I might respond by citing a reason, R, for believing Q. This process might continue for some time. If at any point, I admit that one of the reasons I have given itself has no justification, then my whole chain of reasons would seem to collapse, leaving P unjustified. If I continue to supply reasons for my beliefs, there is a threat of infinite regress. This problem is known as the *epistemic regress problem*. It raises the following question: when one has a justified belief, what is the overall structure of the reasons that one has supporting that belief?¹

There are four possible answers to this question: (i) The series of reasons might have one or more stopping points, that is, reasons for which there are no further reasons. (ii) The series might be circular, that is, at some point in following back the chain of reasons, we might repeat a reason that appeared earlier. (iii) The series might go on infinitely without repeating. (iv) There might be no justified beliefs at all, in which case there is no series of reasons. At least one of these answers must be correct;² this is a logical truth independent of the particular nature of reasons for belief. There are four epistemological theories, corresponding to these possibilities:

- i) *Foundationalism* holds that when one has a justified belief, this belief either is itself non-inferentially justified or is based, directly or indirectly, on one or more non-inferentially justified beliefs. A belief is non-inferentially justified if it is justified to some degree in some way that does not depend on one's having reasons for the belief.³
- ii) *Coherentism* holds that all justified beliefs are justified by virtue of the

¹Sometimes the problem is phrased in terms of *knowledge*, but I shall continue to focus on justified belief.

²If a belief has more than one reason for it, more than one of these structures can be instantiated. The series of reasons behind P might, for example, have a circular branch, an infinite branch, and a terminating branch. Or different beliefs may have different structures of reasons. For simplicity, I shall neglect these possibilities.

³Chisholm 1977; Alston 1989, chapter 1; Fumerton 2005; Huemer 2001, chapter 5.

way they fit together with (“cohere with”) the rest of one’s belief system. This view is commonly interpreted as embracing the legitimacy of circular series of reasons.⁴

- iii) *Infinetism* holds that when one has a justified belief, there is an infinite series of reasons supporting it.⁵
- iv) *Skepticism* holds that there are no justified beliefs.⁶

Foundationalism and coherentism are the two leading views in the field, and it is on them that I shall focus.

2. Coherentism

The coherence theory of justification locates the source of all justification for belief in the relation of *coherence*. Typically, a system of beliefs is said to cohere well when it is consistent, many of the beliefs in the system are mutually supporting (that is, entail each other or render each other probable), and the system contains few or no anomalies (claims that have no explanation within the system).⁷ While foundationalists may grant that coherence plays a role in enhancing the justification of some beliefs, coherentists hold the stronger thesis that coherence can *by itself* provide justification for belief.

2.1. The Probabilistic Argument

Perhaps the central idea behind coherentism is that it would be unlikely that a system of beliefs would cohere if it were not by and large correct; therefore, if a system of beliefs coheres, we have reason to think it is by and large correct. To illustrate the idea, suppose that two witnesses claim to have seen someone commit a crime. The witnesses independently (without consulting each other) report that the culprit had spiked green hair. We need not take the witnesses to be particularly reliable – even if each witness is more likely to make a false report than a true one in matters of this sort, it is nevertheless

⁴BonJour 1985; Davidson 1990; Lehrer 1974, chapters 7-8; Elgin 2005; Kvanvig 2003.

⁵Klein 1999.

⁶Sextus Empiricus 1964, pp. 72-5; Unger 1975; Oakley 1976.

⁷BonJour 1985, pp. 95-9; Lehrer 1974, pp. 163-5; Thagard 2000, pp. 43, 53. Each of these three factors may be thought of as contributing to overall coherence, or one or more of them (most likely the consistency condition) may be thought of as *necessary* for coherence.

highly unlikely that the two would agree on such a specific and unusual description of the culprit, unless the description were true. The best explanation for the coherence of the witnesses' reports is that they are true.⁸

This sort of example is intuitively forceful. Undoubtedly, the coherence of the witnesses' reports in situations of this kind enhances their credibility. But the question remains whether coherence *by itself* can provide justification for belief, or whether the force of the example depends on the background assumption that the witnesses have at least some degree of individual credibility, that is, that individual witness reports produce at least some justification for believing what is reported. Assume that a witness has individual credibility just in case his making a report raises the probability of what is reported; for example, the probability of the culprit having spiked green hair given that the witness reports this is greater than the prior probability of the culprit having spiked green hair. It can be shown in terms of probability theory that if each witness lacks individual credibility in this sense, then their agreement on a single story also does nothing to increase the probability of that story's being correct.⁹ The intuitive idea is this: if neither witness has any independent credibility, then the hypothesis that a particular claim is true would *not* serve to any extent to explain why the witnesses agreed on it, since they would be just as likely to agree on that story if it were false.

A second objection to the probabilistic argument for coherentism is that the argument requires some pre-existent knowledge in order to show that the coherence of a set of claims increases their probability of truth. In the above example, one must first know that each witness did in fact *say* that the culprit had spiked green hair, before one can argue that the coherence of the reports is evidence of their truth. Similarly, before one can make an analogous argument for the likely accuracy of a coherent belief system, one must first know that the belief system is in fact coherent, which would presumably require also knowing what beliefs the system contains.¹⁰ Most foundationalists would posit foundational knowledge of one's own beliefs,

⁸BonJour 1985, pp. 147-8. The example is from Elgin 2005, p. 157.

⁹Huemer 1997 contains a proof of this result for a simple model. See Olsson (2005, pp. 68-9, 218) for a more general proof. See also Olsson (2005, chapter 7) for a demonstration that there can be no conception of coherence such that coherence is in general truth-conducive *ceteris paribus*; cf. Bovens and Hartmann 2003, chapter 1.

¹⁰Van Cleve (2005, p. 173) presses this argument. BonJour recognizes that the coherentist must presuppose that we can correctly identify our own beliefs (1985, pp. 146-7) and that the coherentist cannot justify this assumption (1985, pp. 105-6).

but a coherentist cannot take this route. The point here is not that this proves coherentism to be false; rather, the point is that the coherentist's central argument fails. The examples used to motivate coherentism do not in fact show how coherence alone can provide justification, since in those examples, coherence can provide justification for some beliefs only given that some other beliefs are already justified.

2.2. *The Input Objection*

A common objection to the coherence theory is that the theory seems to provide no role for *experiences* (where these are distinct from beliefs) in the justification of our beliefs. The coherence of a belief system is a function solely of the contents of those beliefs; once the contents of one's beliefs are fixed, no other mental states that one has are relevant to how coherent one's belief system is. Since the coherence theory traditionally claims that coherence among beliefs is the sole source of justification, the theory is committed to denying that any mental states other than one's beliefs are relevant to justification.¹¹ This is counter-intuitive – intuitively, an individual with exactly the same beliefs as I have but entirely different sensory experiences would be irrational.

Probably the best response to this objection is for the coherentist to simply include sensory experiences, memories, and other appearance states (mental states by virtue of which something appears to one to be the case) among the items that one's beliefs must cohere with. Thus, justified beliefs will be justified by virtue of their coherence with one's beliefs-cum-appearances, rather than by virtue merely of their coherence with one's beliefs.¹²

2.3. *The Alternate-Coherent-Systems Objection*

There are many coherent systems of propositions that we do not thereby have any reason to accept. A good novel may express a highly coherent set of propositions, but this is no reason to regard those propositions as by and large true. This shows that coherence by itself does not provide justification for belief.

Probably the best response for the coherentist is to grant that the coherence of a set of propositions is not sufficient for its having any degree of justification, that coherence produces justification for belief only given

¹¹Lehrer 1974, pp. 187-8.

¹²See Kvanvig (1995). BonJour (1985, pp. 117-24, 139-40) provides a different response.

certain further conditions. One condition that might be imposed is that a system of information should contain a significant number of *observations* (these might be interpreted either as a special kind of belief or as a distinct type of mental state).¹³ On this view, the statements in a coherent novel fail to gain justification, due to the absence of any observations among them.

2.4. Problems Defining Coherence

What is it for a belief system to be coherent? The weakest sort of coherence one might expect the coherentist to recognize is that of mere logical consistency—a coherent belief system should not contradict itself. The strongest sort of coherence one might expect the coherentist to recognize is that of mutual entailment—a belief system is coherent to the extent that every belief in it is entailed by the rest of the system.

Unfortunately, it seems that the weakest notion of coherence is *too strong* for the coherentists' purposes, because it is possible to be justified in believing an inconsistent set of propositions. The lottery scenario provides an alleged instance: it seems that one is justified in believing, of each ticket in a large lottery, that it will lose, yet one is also justified in believing that some ticket or other will win.¹⁴ However, some would deny that one is justified in believing of each ticket that it will lose; perhaps one is only justified in believing of each ticket that it will *probably* lose. Perhaps a more compelling example of justified inconsistent beliefs is provided by my present belief that at least one of my beliefs is false. The evidence for this, I should say, is overwhelming—I have often discovered false beliefs of mine in the past; to the best of my knowledge, every other person in the world has at least some false beliefs; and I have no good reason to suppose myself dramatically less error prone than the rest of the world. But as long as I believe that I have at least one false belief, my belief system as a whole is incoherent (it is logically impossible that all my beliefs should be true). The coherence theory thus appears to imply, wrongly, that I am unjustified in believing that I have at least one false belief.

At the same time, it seems that the strongest notion of coherence is *too weak*, because it is too easy, starting from any set of propositions, to add further propositions to the set in such a way that every member of the set is entailed by the rest of the set. For instance, suppose I believe two propositions, P and Q. I may add to my belief system the belief that *P if and only if Q*. Of the set of propositions, {P, Q, (P ↔ Q)}, any two entail the third.

¹³BonJour 1985, pp. 141-4; Kvanvig 1995.

¹⁴Foley 1979. Lehrer (1974, pp. 192-7) responds to the lottery problem but remains vulnerable (p. 202-3) to the example following in the text.

Since this is true regardless of what P and Q are, it seems all too easy to generate coherent systems.¹⁵ A coherentist might respond to this worry by proposing that it is only coherence among *independently acquired* beliefs – for instance, beliefs caused by distinct perceptual experiences – that generates justification. If I know that my belief in (P ↔ Q) was acquired solely by my inferring it from P and Q, then its coherence with P and Q does not serve to enhance its justification.

2.5. The Circularity Objection

Perhaps the central intuitive objection to the coherence theory is that the theory is committed to endorsing circular reasoning. Suppose I announce that I believe it will snow tomorrow. You ask me why I believe this. I reply: “I think it will snow tomorrow, because it will snow tomorrow.” It seems clear that I have not thereby articulated a possible legitimate justification for my belief. Nor is the situation apparently improved if I make the circle larger and more complex. If I claim that my belief that A is justified because it is supported by B and C, which I also believe; that B is justified because it is supported by A and C; and that C is justified because it is supported by A and B; then I have merely engaged in a slightly more complex form of circular reasoning. It seems that the coherence theory of justification involves the same error – the theory merely makes the circle larger and more complicated, so that it perhaps includes all or most of the elements of one’s belief system.

Sometimes a distinction is drawn between *linear* coherentism, which explicitly endorses circular reasoning, and *holistic* coherentism, which allegedly avoids such circularity. The holistic coherentist holds that justification applies in the first instance, not to individual beliefs, but to a whole *system* of beliefs.¹⁶ But this hardly seems to make any difference – suppose that I modify my earlier account as follows: I announce that the *system* consisting of A, B, and C is justified because B and C support A, A and C support B, and A and B support C. This hardly disguises the circularity. If we found it implausible to maintain that individual beliefs can be justified by circular reasoning, how plausible is it to claim that a *system* of beliefs can be justified by virtue of the very sort of logical relations among its members that such circular reasoning exhibits?

This argument might be thought to beg the question, because the premise that circular reasoning is unacceptable is too close to a simple denial of the coherentist’s central thesis. The coherentist cannot, however, escape

¹⁵Fumerton 1995, pp. 145-7.

¹⁶Elgin 2005, p. 156; Kvanvig 2003, section 1; Thagard 2000, pp. 76-7.

the force of the intuition merely by taking up a thesis that directly contradicts it. Nearly everyone – even the coherentist, in all likelihood – shares the sense that there is something wrong with simple, clear cases of circular reasoning. The coherentist therefore has the burden to explain why an exercise in circular reasoning should become acceptable merely by dint of the size of the circle.

3. Foundationalism

Foundationalists believe that some beliefs are non-inferentially justified, or “foundational,” and that all other justified beliefs depend for their justification on these foundational beliefs. Most foundationalists accept beliefs about simple necessary truths (such as that $1+1=2$ or that nothing can be entirely blue and entirely red at the same time) as well as beliefs about one’s own present conscious mental states (such as the belief that one is presently in pain) as foundational.¹⁷ Some also accept perceptual beliefs, such as the belief that there is a red object in front of one (when one sees such an object), as foundational.¹⁸

In assessing the merits of foundationalism, it is important to avoid saddling the view with needlessly strong assumptions. Foundational beliefs, by definition, are beliefs that have some degree of justification not dependent on reasons. Foundational beliefs need not be infallible, absolutely certain, or unrevisable; the degree of non-inferential justification they have may be relatively modest.¹⁹ Foundational beliefs also are not precluded from being supported by reasons; the thesis that a belief does not *require* reasons in order to be to some degree justified does not entail that the belief *cannot have* reasons that further support it.

3.1. Arguments for Foundationalism

The most popular argument for foundationalism is the regress argument. It maintains that foundationalism is the only plausible response to the regress problem discussed in section 1. This argument premises that we have justified beliefs, justification cannot be produced by circular reasoning, and

¹⁷Chisholm 1977, pp. 20-23, 27-30, 40-46; Audi 1993, pp. 307, 310. See also note 29 below.

¹⁸Reid 1983, pp. 272-3; Huemer 2000; 2001, chapter 5; Audi 1993, p. 308; Pollock and Cruz 1999, pp. 84-8, 191-239.

¹⁹Alston 1989, chapter 2; Audi 1983. Thagard (2000, pp. 4, 71-2) mistakenly takes foundationalism to be committed to indubitable, unrevisable foundations.

we do not have infinite series of reasons for our justified beliefs; it follows that when we have a justified belief, the chain of reasons for it terminates. Assuming that an unjustified belief cannot serve as a reason for another belief, the chain of reasons must terminate in a non-inferentially justified belief.²⁰

A second argument for foundationalism consists in an appeal to apparent examples of non-inferentially justified beliefs. Suppose I go to the doctor, complaining that I have developed arthritis. The doctor says, "Why do you think you have arthritis?" This is a sensible question. Suppose I respond: "Because I have a pain in my wrist." Now suppose the doctor asks, "Why do you think you have a pain?" *This* question is just bizarre. When one has a pain, one is acquainted with it; one does not seek *reasons for thinking* that one is in pain. The same might be said of other present, conscious mental states, and the same might perhaps be said of simple and obvious necessary truths.

Critics have tried to identify ways in which even these beliefs are based on reasons. The most common suggestion seems to be that an introspective belief that one is in pain rests on the belief that one's introspection is reliable, or that one is good at recognizing pains.²¹ An initial problem with this suggestion is that the alleged reason does not by itself provide any support for the claim that it is alleged to be a reason for – that is, the following is not at all a cogent inference:

- P1 My introspection is reliable. Therefore,
- C I am in pain.

To have a cogent inference, one must add a further premise, as in the following:

- P1 My introspection is reliable.
- P2 I have an introspective belief that I am in pain. Therefore,
- C I am in pain.

But this sort of inference does not provide a plausible model of how a typical introspective belief such as C is justified. For C to be justified in this way, P2 would have to be justified. But P2 is another introspective belief. If we apply the same model to explain how P2 is justified, we must say that it is justified by the following inference:

²⁰Alston 1989, pp. 26-7. The argument traces back to Aristotle (*Posterior Analytics*, 72b17-25; *Metaphysics* 1006a5-12).

²¹Oakley 1976, pp. 222-4; Cohen 2002.

- P1 My introspection is reliable.
P3 I have an introspective belief that I have an introspective belief that I am in pain. Therefore,
P2 I have an introspective belief that I am in pain.

But P3 is another introspective belief, so we can ask how it is justified. This leads us down the path of an infinite regress. And this regress is particularly vicious, because at each stage, the second premise in the argument becomes more complex. Very shortly it will become too complex for a normal human being to grasp, after which point the premise will be both false and unjustified. Better, then, to have rested at the start with the non-inferential belief that one is in pain.

3.2. *The Arbitrariness Objection*

Some object that putatively foundational beliefs are “arbitrary.”²² It is unclear what this objection amounts to. If “arbitrary” just means “unjustified,” then the objection begs the question—it simply asserts that the beliefs foundationalists take to be justified are not justified. If an “arbitrary belief” just means a belief for which one has no reason, then the objection again begs the question—it simply reminds us that foundationalists endorse the notion of non-inferential justification, and presupposes that this is problematic.

A more sophisticated worry is that foundationalism conflicts with the principle of the supervenience of epistemic justification. This is the principle that whenever a belief is justified, there is some other feature of it (possibly relational and/or conjunctive) in virtue of which it is justified. For simplicity, let us suppose that there is a single feature, F, that makes all non-inferentially justified beliefs justified, a feature that distinguishes these beliefs from merely arbitrary beliefs. One may ask whether a belief’s having this feature renders it likely to be true. If not, then it is obscure how this feature can render beliefs justified. If so, then it appears that one *does* have a reason for any given foundational belief: namely, that the belief has F. Therefore, the allegedly foundational belief is not foundational after all.²³

This objection appears to rest on a misunderstanding discussed earlier, that of attributing to foundationalists the thesis that non-inferentially justified beliefs are *incapable* of being supported by reasons. Rather, non-inferentially justified beliefs do not *need* reasons in order to have some degree of justification; this does not preclude our finding reasons for them.

²²Klein 1999, p. 297. I respond to this objection in detail in my (2003).

²³BonJour (1985, pp. 30-32) poses a more sophisticated version of the objection.

Nevertheless, one may feel that, although the existence of a reason supporting each allegedly foundational proposition does not show that these propositions are not foundational, it defeats much of the *point* of foundationalism. Foundational propositions are posited largely to avoid the infinite regress of reasons. If each putatively foundational proposition has reasons supporting it, then it may seem that we get an infinite regress anyway, so foundationalism hasn't bought us anything.²⁴

There are two replies to this last worry. One is that what foundationalism buys us, in part, is an account of why individuals who are less than ideally self-aware and philosophically sophisticated nevertheless have justified beliefs. On the foundationalist view, one may have a non-inferentially justified belief, provided one's belief has feature F. It is not necessary that one also *believe* (even dispositionally) that one's belief has F, nor that one believe that beliefs with F are likely to be true. This is a desirable feature of the theory, since we usually do not in fact reflect on our beliefs and their epistemic status, and there is no one who is *always* aware of his own beliefs. Even if, on some occasion, I both believe that P and believe that my belief that P has feature F, it is unlikely that I will also believe that my belief that my belief that P has feature F has feature F, and so on *ad infinitum*.

Second, even when we restrict our attention to ideally self-aware and philosophically sophisticated thinkers, the availability of a reason for each putatively foundational belief does not necessarily render the positing of non-inferential justification otiose. Suppose that S believes that P; that his belief has feature F, where this is a feature that does not require the belief to be based on reasons; and that beliefs with F are thereby likely to be true. If S is also self-aware and philosophically sophisticated, then S has available a reason for believing P: namely, that the belief that P has F. Now, there are at least two ways in which S's belief that P might be justified: (a) it might be non-inferentially justified merely in virtue of having F, or (b) it might be inferentially justified in virtue of S's having the mentioned reason for believing P. The anti-foundationalist claims that there is no good reason to posit justification (a), since justification (b) is available in any case and suffices to account for the belief's justification. It might therefore be thought that Occam's Razor dictates rejection of the foundationalist posit. However, notice that the real difference between (a) and (b) is the difference between a belief's merely having a certain feature, and the subject's recognizing that feature. So the dispute between the foundationalist and the anti-foundationalist here is over whether a belief's having F renders it justified, or whether one must also add the subject's recognition of, or belief about, its having F. Put this way, it is not at all clear that the anti-foundationalist has

²⁴This is my understanding of Klein's (2004) argument.

the simpler theory.

Furthermore, there is no peculiarly problematic feature of foundationalism to be found here – an exactly parallel dispute could arise about any theory of justification. Suppose a theory of justification claims that some belief is justified by virtue of its having feature J. This may be any feature whatsoever, including features that require the belief to belong to a coherent system, that require the belief to be supported by an infinite series of reasons, and so on. One could always propose that, instead of being justified by virtue of having J, the belief is justified (for ideally self-conscious, philosophically sophisticated thinkers) by virtue of one's *recognition* that it has J. It is unclear why this move should be any less plausible when applied to other theories of justification than it is when applied to foundationalism. But presumably we should not conclude that no theory of justification is well-motivated. It therefore does not seem that the objection shows foundationalism to be ill-motivated.

3.3. *The Bootstrapping Problem*

Suppose I have a method of belief-formation that produces foundational beliefs. Suppose for the sake of argument that this method is ordinary observation – that is, when I believe what perceptually appears to me to be the case, my belief is non-inferentially justified. By hypothesis, since perceptual beliefs are non-inferentially justified, I need not have any beliefs about the reliability of my perceptual faculties in order to have justified perceptual beliefs. Now suppose it occurs to me to wonder whether sense perception is reliable. I decide to check: I go out and form some perceptual beliefs; each time, I check (perceptually) to see whether the belief is true, and I find that it is. For instance, upon seeing a red fire hydrant, I think to myself:

- P1 That is a red fire hydrant.
- P2 I have a perceptual belief that that is a red fire hydrant.
- C1 Therefore, I have a true perceptual belief in this case.

P1 is foundational (known by observation), and P2 is justified by introspection. I repeat this sort of inference many times, collecting many examples of cases in which my perceptual belief was true. I infer inductively that my perceptual beliefs are reliable.

This is known as a bootstrapping inference – I have used a faculty or belief-forming method in the effort to verify its own reliability. Intuitively, it seems that there is something wrong with this way of proceeding; it seems that the bootstrapping inference involves an undesirable form of circularity. Yet if foundationalism is true, it is unclear why the proposed reasoning should not be legitimate. Both P1 and P2 are justified; they entail C1; C1

seems to constitute inductive evidence for the reliability of sense perception; and the inference is non-circular since, as we have supposed, my belief in the red fire hydrant does not depend upon any prior beliefs about the reliability of sense perception—indeed, it depends on no prior beliefs for its justification at all, which makes it difficult to see how it can fail to be a legitimate starting point for reasoning.

This example motivates the thought that, to account for the intuitive circularity of the bootstrapping argument for the reliability of perception, we should suppose that perceptual beliefs do after all depend for their justification on the belief that perception is reliable; therefore, perceptual beliefs are not foundational. Since the same sort of argument could be made with respect to any cognitive faculty or belief-forming method, we should conclude that no beliefs are foundational.²⁵

This is a very interesting problem to which I do not know the answer—I do not know whether bootstrapping arguments are legitimate, or why they are illegitimate if they are. But notice that the problem does not only confront foundationalists. Though it is meant to apply to non-inferentially justified beliefs, the problem can be generalized so as to apply also to inferentially justified beliefs. For example, assume that *modus ponens* is a cogent form of inference. One can construct a bootstrapping argument for the conditional reliability of *modus ponens* (i.e., for the conclusion that inferences following *modus ponens* tend to produce true conclusions given true premises). One can simply form a number of beliefs using *modus ponens*, observe introspectively that one used *modus ponens* to form them, and conclude that one has a number of instances of *modus ponens* leading to true beliefs, hence, inductive evidence that *modus ponens* is conditionally reliable. Intuitively, this is just as problematic as using perception to verify the reliability of perception, and the bootstrapping inference here is at least not explicitly circular—nowhere does one rely on the premise “*modus ponens* is conditionally reliable” (inferences of the form *modus ponens* do not generally require “*modus ponens* is conditionally reliable” as premises).

One can generalize the problem to apply to nearly any theory of justification. Suppose a theory holds that a belief’s having feature J is sufficient for its being justified. Provided that J is sometimes detectable, one could construct a bootstrapping inference for the claim that beliefs with J are generally likely to be true: simply form a number of beliefs with J, realize that they have J, and conclude that their truth constitutes inductive evidence for the generalization that beliefs with J tend to be true.²⁶ For example, suppose

²⁵Cohen 2002.

²⁶The only exceptions would be cases in which one cannot independently know that a belief has J, or (if this is possible) in which a belief’s having J entails

a coherentist holds that a belief's cohering with the rest of one's belief system is sufficient for it to be justified. He might then think to himself:

- P3 Dogs have four legs.
- P4 The belief that dogs have four legs coheres with the rest of my belief system.
- C2 So coherence correlates with truth in this case.

where P3 is justified solely because it coheres with the rest of his belief system. After rehearsing a number of similar cases, the coherentist concludes that he has inductive evidence that coherence is a reliable indicator of truth. Intuitively, this bootstrapping inference is problematic in precisely the same way as the bootstrapping inference for the reliability of sense perception. And the coherentist will have just as much difficulty explaining what is wrong with the former inference as the foundationalist has in explaining what is wrong with the latter.²⁷ The coherentist bootstrapping inference is at least not explicitly circular – by hypothesis, P3 is justified solely by virtue of the fact that it coheres with the rest of one's belief system; it is not inferentially justified on the basis of the belief that coherence is a reliable indicator of truth. It thus appears that the bootstrapping problem cannot motivate a preference for coherentism over foundationalism.

3.4. Which Beliefs Are Foundational?

Among foundationalists, there are several views as to which beliefs have non-inferential justification. First, there is the traditional view that a belief is non-inferentially justified if and only if it is infallible, either in the sense that one's holding the belief entails that it is true, or in the sense that one's holding the belief for the sort of reason one holds it entails that it is true.²⁸ For instance, my belief that I exist is infallible in the former sense; my belief that I am in pain, based on my introspective awareness of pain, is infallible in the latter sense. Second, there is the view that a belief is non-inferentially justified if the believer is *acquainted with*, or directly aware of, a fact that makes it true. Typically, facts about one's own mental states and perhaps about simple abstract objects are held to be among the possible objects of

that it is partly based on the belief that J is a reliable indicator of truth.

²⁷Cohen (2002, p. 323-5) discusses this problem.

²⁸This view is inspired by Descartes (1984, pp. 16-17). See Lehrer (1974, pp. 78-100) and Fumerton (2001, pp. 9-12) for refutation of the view.

acquaintance.²⁹ Third, one may hold that one has non-inferential justification for a belief if the belief is the product of a reliable belief-forming mechanism that does not require the input of any other beliefs.³⁰ For example, provided that one's senses are in fact reliable, one can acquire non-inferentially justified beliefs about the external world by simply believing what perceptually appears to one to be the case. Fourth, there is a view according to which, whenever one believes something, the mere fact that one believes it provides at least some degree of *prima facie* justification for it.³¹ Finally, some hold the view that whenever something *appears* to be the case (where this is distinct from one's believing it), not as a result of reasoning, one has at least some degree of *prima facie* justification for believing it.³²

This last view, which we may dub "Phenomenal Conservatism," has important advantages over the others. The most interesting of these advantages is that it may be the only theory that allows most of our actual beliefs to be justified. The argument for this relies on two premises: first, that for a belief to be justified, the factor in virtue of which the believer has justification for the relevant proposition must itself be *the reason why* the believer accepts that proposition.³³ For instance, suppose that Jon has a great deal of scientific evidence for the theory of evolution; however, none of this evidence moves him. The actual reason why he believes in evolution is due to a recent reading of tea leaves. In that case, though Jon *has justification for* the theory of evolution, his actual belief is unjustified.

Second, the reason why we believe all or most of the things we in fact believe is that they seem to us to be the case. Sometimes, of course, we have evidence that appearances are deceiving, as when we become aware of a sensory illusion. But even in such a case, we accept that evidence only because it seems to us to be true.

If these two premises are correct, it follows that all or most of our beliefs are unjustified, unless something's seeming to us to be the case gives

²⁹Russell 1997, chapter 5; Fumerton 2001, pp. 12-18; BonJour 2001, pp. 24-31.

³⁰Goldman 1992, pp. 117-18; Sosa 1991, pp. 189-90.

³¹Foley (1983) criticizes this view convincingly.

³²Huemer 2001, chapter 5.

³³I leave the notion of "the reason why" one holds a belief unanalyzed, except to note (i) that it presumably applies to a factor that is at least the most salient causal factor in producing the agent's belief, and (ii) that the notion does not imply that the belief in question is inferential (the reason why one believes that P need not be that one believes something else that supports P).

us some justification for believing it.³⁴ Once we accept the principle of Phenomenal Conservatism, we can account for all the central intuitive examples of justified beliefs, such as perceptual beliefs, introspective beliefs, memory beliefs, and intuitive beliefs.

4. Conclusion

Foundationalism is the best theory of the structure of epistemic justification. It is supported by intuitive examples of non-inferentially justified beliefs, such as one's belief that one is in pain when one is, and the belief that $1+1=2$. Some object that beliefs not supported by reasons must be "arbitrary," but this objection appears to simply beg the question. Some critics point out that, provided that foundational beliefs have some feature, *F*, that distinguishes them from merely arbitrary beliefs, and provided that this feature renders beliefs that have it likely to be true, a sufficiently self-aware and sophisticated thinker always has a reason supporting any foundational belief—namely, the fact that the belief has *F*. This is not incompatible with the belief's being foundational, since foundational beliefs are defined as beliefs that *do not need* reasons, rather than as beliefs that *cannot have* reasons supporting them. Nor does this render the posited non-inferential justification otiose; the thesis that *F* confers justification on a belief is no less simple than the thesis that an individual's awareness of *F* is required for justification, and the latter thesis is analogous to a claim that could be posed with equal plausibility as an alternative to any theory of justification. In any case, the non-inferential justification posited by the foundationalist is required to explain why less than ideally self-aware and sophisticated thinkers have justified beliefs.

Critics have charged foundationalism with implausibly licensing bootstrapping inferences, in which one employs a belief-forming method to verify the method's own reliability. It is difficult to say what, if anything, is wrong with bootstrapping inferences; however, the problem is not unique to foundationalism, as bootstrapping inferences can be constructed equally for nearly any alleged source of justified belief, including types of inferences.

The coherence theory, by contrast, faces two major difficulties. The first is that the probabilistic argument typically advanced in support of it fails to show how coherence alone can provide justification for any belief. This is because the truth of a collection of claims explains their coherence only on the assumption that each claim would have been more likely to be made if it were true than if it were false; hence, each claim must have some individual credibility. Furthermore, we must have a prior knowledge of our

³⁴I elaborate this argument in my (forthcoming).

own mental states (particularly our beliefs) and of their coherence, before coherence can be a source of justification.

The second problem is that the coherence theory appears simply to endorse a complicated form of circular reasoning, and there is no clear reason why large, complex exercises in circular reasoning should be any more acceptable than simple and obvious ones. The approach of holistic coherentism, which claims that a whole system of beliefs is justified by virtue of its coherence, makes little advance on this problem, since the coherence of a system seems to consist mainly in the individual beliefs' standing in the very support relations to each other that circular reasoning relies on; therefore, if circular reasoning does not provide justification for the individual beliefs, it is implausible that coherence provides justification for the system.

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