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[Foundationalism and Perceptual Knowledge]

Richard Legum
CUNY Kingsborough Community College

Does empirical knowledge rest on a foundation of basic beliefs? Most philosophers have thought that the answer is obvious. Unfortunately, some have thought that the obvious answer is yes, while others have thought the obvious answer is no. Foundationalists have thought that the obvious answer is yes, while coherentists have claimed that foundationalism was obviously defective and hopelessly misguided. In this dissertation, I will argue that the wrong answer to the foregoing question is obviously no, or to put it another way, I will attempt to show that foundationalism is a defensible doctrine.

In claiming that knowledge rests on a foundation of basic beliefs, foundationalists are appealing to a metaphor that likens knowledge to a pyramid.[1] People do not know everything they believe; however, everything that is known is believed. What is known must not only be believed, but it must also be true as well as justified. In drawing the analogy between the structure of knowledge and a pyramid, foundationalists intend to make certain claims concerning the justification of empirical belief. One cannot expect to make a certain tier of blocks in a pyramid secure, if one does not lay the blocks on a tier that is already secure. Foundationalists make a similar

claim concerning the justification of empirical beliefs. The moral that they draw is that the justification that one has for a certain belief must be provided by other beliefs that are already justified, i.e., by beliefs that occupy lower tiers in the structure of knowledge. The foundationalists note that a pyramid is laid on a foundation that secures itself and concludes that the justification of empirical beliefs must start somewhere. Thus, they suggest that the justification of empirical beliefs, the structure of knowledge, must rest on a secure foundation, a foundation of self-justified beliefs.

The coherentists suggest that knowledge resembles a raft rather than a pyramid. There is no single part of a raft that keeps the raft afloat. Rather, what keeps the raft afloat is simply the way that its parts fit together. If the logs are lashed together or nailed together properly, then the raft will float. Coherentists claim that the same is true of epistemic justification; what keeps a person's knowledge afloat is simply the way the his beliefs fit together. For a belief to be justified, according to coherence theorists, it must "cohere" with the person's other justified beliefs. The essential difference between the coherentists and the foundationalists is that the coherentists allow that a belief may serve to justify another belief, even though the latter

belief is, in turn, justified by the former. The structure of knowledge is alleged to resemble a raft in that no belief is more basic than any other. They are all justified because of the way they fit in with another person's belief. Any belief may be eliminated from the system of justified beliefs and replaced by another or á few others without doing irreparable damage to the entire system, just as one log or board may be removed from a raft and replaced without causing the raft to sink.

Foundationalists and coherentists agree that all beliefs derive their justification from the relationship that they bear to other beliefs. Coherentists allow that beliefs may be justified because of their relationship to other beliefs which are, in turn, justified by the beliefs in question, i.e., that justification may be symmetric. Foundationalists, on the other hand, believe that justification can be passed on only from beliefs that are independently justified. As they think that justification must start somewhere, foundationalists claim that certain beliefs are self-justified and that all justified beliefs ultimately derive their justification (at least in part) from self-justified beliefs.

Certain sorts of examples have led philosophers to think that there is an obvious answer to the question, "Does knowledge rest on a foundation of basic beliefs?"

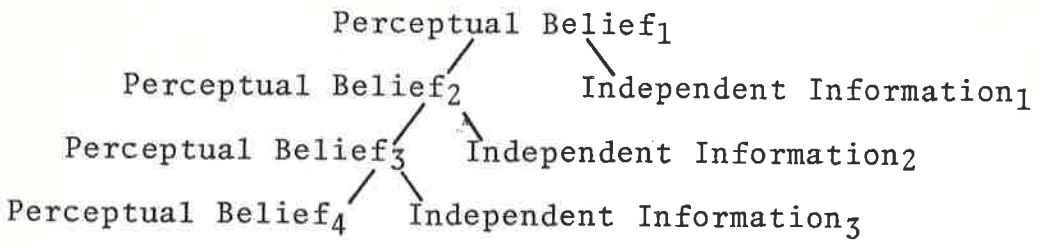
Examples from science have led some coherentists to suppose that the obvious answer is no. Consider, for example, the justification astronomers had for believing the big bang theory. Astronomers discovered that the stars seem to be moving away from us, i.e., they discovered that there was a red shift in the spectrum of the light emitted by the stars. This discovery puzzled many astronomers, for, given the cosmological theory that was generally accepted at that time, such stellar movement could not be accounted for. Some scientists believed that the data that they had were defective; i.e., that they were not justified in believing that the stars were receding. Other scientists proposed the hypothesis that all the matter in the universe was originally condensed and, due to a great explosion, a big bang, debris was spread all over. From this debris, our solar system and many others were formed. The data that they had, although some questioned its veracity, supported the big bang hypothesis, and the hypothesis, in turn, gave credence to the belief that the stars were receding. Thus, the data served to justify the astronomers in believing the big bang hypothesis and the big bang hypothesis helped to justify the scientists' belief that their data were correct, i.e., neither belief is independently justified, but taken together, the pair is.

Foundationalists set aside such examples, pointing out that they only claim that part of the justification that one has for believing something must derive from beliefs that are independently justified. A foundationalist would claim that he never meant to assert that a belief must be justified entirely by beliefs that are independently justified, but rather, that an empirical belief must be justified at least in part because of some relationship that it bears to some beliefs that are independently justified. He would continue by making the following points concerning the foregoing example. The big bang hypothesis is justified by the data, and the data is, in part, justified by the hypothesis. But, the data is also justified by the sceintists' other beliefs which are independently justified, e.g., their beliefs that they see that one of their instruments is behaving in a certain way, and that their telescopes are pointed in a certain direction. These perceptual beliefs are, in turn, justified by other beliefs which are independently justified.

Foundationalists think that all empirical beliefs are founded on or ultimately justified by perceptual beliefs. Concentrating their attention on perceptual beliefs leads foundationalists to think that knowledge rests on a foundation of self-justified beliefs.

Chisholm,[2] for example, considers the justification of his perceptual belief that he sees that that is Mt. Monadnock behind the trees. He claims that what justifies him in believing this is his belief that he has been in this place many times before and he can see the mountain. But then what justifies him in thinking that it is Mt. Monadnock is that he is justified in thinking that he sees that the mountain is shaped like a wave and that there is a small cabin near the top and that he is justified in believing that there is no other mountain, within miles, that answers to that description. What is his justification for thinking that he sees a cabin? His belief that he sees something rectangular and blue and his belief that he remembers that there is such a cabin on Mt. Monadnock. Finally, what justifies him in believing that he sees something blue is his belief that he seems to see something blue, which he alleges to be self-justifying and his belief that he is not hallucinating.

The point of this example is to illustrate that when we trace the justification of a perceptual belief, we find that to properly depict the structure of justification of such a belief, a diagram like the following must be used:



Moreover, we find that if the belief at the top of the pyramid is justified, then the perceptual belief at the bottom is self-justified.

Coherentists would not be prepared to concede the point upon hearing this. They propose that certain of the claims that the foundationalists make are completely untenable. They claim that there are no self-justifying beliefs, and that even if there were, the foundationalists cannot give a plausible account of the justification of complex empirical beliefs in the way that they attempt to.

Foundationalism may be characterized, somewhat more precisely, as the theory whose central tenets are:

> A. Some empirical beliefs have at least some degree of initial epistemic justification which is independent of the justification that they may derive from other beliefs;

and

> B. All empirical beliefs must ultimately derive at least some of their justification from beliefs that are self-

justified, i.e., beliefs that satisfy (A).[3]

Contemporary proponents of foundationalism include Bertrand Russell, A.J. Ayer, C.I. Lewis, Roderick Chisholm, and John Pollock. In this dissertation, I will attempt to show that some theory which affirms both of the foregoing theses is tenable.

To demonstrate that a certain theory is tenable, one could proceed in either of two ways. One could ignore the versions of the theory that have been advanced, and present some general line of argument to show that there are no plausible alternatives to the theory. The other way to proceed would be to examine some of the versions of the theory that have been presented, and attempt to show how the defects of the various versions of the theory could be eliminated and how the conflicts between the different versions could be resolved. I adopt the latter method in attempting to demonstrate that foundationalism is tenable.

I proceed by examining the two most influential versions of foundationalism, the versions advanced by C.I. Lewis and Roderick Chisholm. In presenting their views, Lewis and Chisholm have attempted to give answers to three fundamental questions: (1) Why must the structure of empirical knowledge be foundational? (2) What

is the nature of the foundation of knowledge? and (3) How does the foundation serve as the justification of nonfoundational beliefs? Their answers to these questions are the subject of examination in this dissertation.

Lewis's writings spurred the recent interest in foundationalism. He was convinced that knowledge must rest on a foundation of certainties, and thus, proposed that phenomenological beliefs constitute such a class of beliefs. Lewis defended this contention by pointing out that if someone knows (is justified in believing) a proposition, then the proposition is highly probable given his evidence for it. As he argued that nothing is probable unless something is certain, he concluded that knowledge must rest on a foundation of certainty. In a renowned symposium held at the 1951 meeting of the Eastern Division of the American Philosophical Association, the soundness of this argument was debated.[4] At this symposium, Hans Reichenbach argued that the argument was unsound, for it made a false assumption concerning probability. Until recently, Reichenbach's criticism was generally considered to constitute an insurmountable objection of Lewis's argument. In the first chapter of this dissertation, the Lewis-Reichenbach Debate is examined as are some recent attempts to defend Lewis's argument, including those suggested recently by James

Van Cleve[5] and Mark Pastin.[6] I conclude that while these lines of defense fail, Lewis may be defended from Reichenbach's objection.

Lewis championed the doctrine of the "given". According to this doctrine, there are propositions which describe the way things appear to us and about which one cannot be mistaken. These propositions, according to Lewis, serve as the foundation of knowledge. In the second chapter, this doctrine is explicated and objections to it are considered. Among the objections considered are ones proposed by Nelson Goodman, James Cornman, and Charles Fritz.[7] I suggest that the only objection to the doctrine which may be telling is the objection that it may not be possible to specify which propositions describing the way that things appear to us are "given". This objection is left unanswered until Chisholm's refinement of Lewis's theory is considered.

Lewis seemed to think that everyone employs the scientific method in believing even the more basic non-foundational beliefs and, it is in virtue of this, that one is justified in believing these propositions. To see what this claim amounts to, it will be helpful to consider how one could be justified in believing some scientific hypothesis, e.g., that salt is soluble in water. One could be justified in believing this

hypothesis if he confirmed it by drawing out certain of the consequences of the hypothesis (test implications) and testing their truth. For example, a test implication of the hypothesis in question is that a specific piece of salt will dissolve if it were immersed in pure water at a certain temperature. Thus, if we immerse the salt in a cup of water and find that the salt dissolved, we have one confirming instance of the hypothesis. Once we have acquired a sufficient number of confirming instances of the hypothesis (and sufficiently few disconfirming instances), we are justified in believing the hypothesis on the basis of induction. According to Lewis, even some of our simple nonfoundational beliefs, e.g., that there is a white piece of paper before me, must be justified in this manner. To account for this, Lewis claims that an objective belief, a belief that entails the existence of some external object, entails what he calls terminating judgments. A terminating judgment is a proposition which asserts about some person that given that he is having a certain kind of perceptual experience, if he were to adopt a certain mode of action, then he would have another sort of perceptual experience, e.g., given that I seem to see a white piece of paper, if I were to seem to move this piece of paper to the left, then I would seem to see a white piece of paper

moving to the left. The propositions which compose the terminating judgments must, according to Lewis, be "given" propositions. We are justified in believing an objective belief when we have confirmed sufficiently many of the terminating judgments which are the analytic consequences of the belief.

Lewis's picture of the structure of justification is not quite as neat as the one that is painted thus far. In addition to being justified in believing propositions on the basis of their confirmation, we may be justified in believing them if they are probable or if they are based on memory. In the third chapter of this dissertation, I attempt to give a recursive definition of 'justified belief' which captures Lewis's account of knowledge. Chisholm's objection to Lewis's phenomenalism (his claim that objective statements entail terminating judgments) is examined. I argue that while Chisholm is correct in claiming that Lewis's phenomenalism is false, this element in Lewis's theory may be eliminated without the need for a radical amendment of the theory. An often-heard objection to Lewis's account of memory is also considered and rejected.

Unlike Lewis, Chisholm does not attempt to present an argument that is intended to show that foundationalism is the only plausible theory of knowledge. Nonetheless,

he does outline reasons for adopting foundationalism. Chisholm thinks that one seeks out the justification that he has for believing something by attempting to answer the Socratic question, "What justifies me in thinking that I know that?" Such a question may be answered in either of two ways, according to Chisholm; either by claiming that I am justified in believing something else and that justifies me in having the belief in question, or by claiming that the fact that the proposition is true justifies me in believing it. As long as one gets the first sort of answer, one may ask another Socratic question concerning the new belief cited. Chisholm notes that this process of Socratic interrogation, as a matter of fact, comes to an end, i.e., that eventually we do get an answer of the second sort to a Socratic question. For this reason, Chisholm suggests that foundationalism is plausible. In the fourth chapter, these considerations are presented and explained in some detail, in order to introduce the reader to Chisholm's version of foundationalism.

Chisholm claims that the foundation of empirical knowledge is made up of propositions that are "directly evident", that the process of Socratic questioning comes to an end when a proposition that is "directly evident" is cited. He carefully defines 'directly evident' and

claims that the most interesting and controversial propositions which have this status are propositions describing the way that things appear. To improve on Lewis's view, Chisholm is very careful in formulating the sentences that are intended to express the directly evident. He characterizes directly evident propositions in such a way that they entail the existence of neither external physical objects nor sense data. These propositions simply describe how people are appeared to. Chapter five is devoted to Chisholm's views on the foundation of knowledge. The theory of the directly evident will be carefully scrutinized, as well as some of the best objections that have been presented against it. These objections include ones that have been proposed by Stephen Leeds, Margery Naylor, and Keith Lehrer.[8] I argue that, with some minor modifications, Chisholm's theory of the directly evident is correct.

Chisholm thinks that no principles of scientific inference can account for the justification of nonfoundational beliefs on the basis of the directly evident. He, thus, proposes special epistemic principles which are intended to account for our knowledge of the indirectly evident. In formulating these principles, Chisholm makes use of certain terms of epistemic appraisal, e.g., 'beyond reasonable doubt', 'evident',

'certain', etc. To make the principles intelligible, he presents a logic of epistemic preferability in which Chisholm's technical terms are explicated in terms of the primative term of the system, 'more reasonable than'. Some of Chisholm's critics have argued that Chisholm's epistemic principles are utterly unintelligible because there are fundamental flaws in Chisholm's system of epistemic logic. In chapter six, Chisholm's system of epistemic logic is presented and defended. His epistemic principles are then closely examined. It is argued that they are defective because an unjustified presumption in favor of the acquisition of knowledge via perception and memory is built into these principles.

This dissertation concludes with a summary of my findings concerning the viability of foundationalism. The version of foundationalism that is found to be viable is a cross between Chisholm and Lewis's views. Chisholm's views concerning the foundation of knowledge are deemed to be, for the most part, correct. Knowledge is alleged to rest on a foundation of propositions of the form 'I am appeared to Φ-ly'. However, not all such propositions are held to be directly evident. Rather, they are held to be directly evident when believed for the proper sort of reasons (e.g., when the person is attending to the presentations of his senses). Finally, it is suggested

that the proper account of the relationship between foundational beliefs and the nonfoundational beliefs is similar to Lewis's account. However, it is noted that this account cannot be based on phenomenalism as Lewis's account was. I leave it for a future date to fill in the details of such an account.

Footnotes

1. Cf. Ernest Sosa, "The Raft and the Pyramid: Coherence versus Foundations in the Theory of Knowledge," in Peter A. French, Theodore E. Uehling, Jr., and Howard Wettstein, (eds.), Midwest Studies in Philosophy: Studies in Epistemology, (University of Minnesota Press, Minneapolis, Minnesota, 1980), pgs. 4-6.

2. Roderick M. Chisholm, Perceiving. (Cornell University Press, Ithaca, New York, 1957), pgs. 54-58.

3. David Annis, in "Epistemic Foundationalism," Philosophical Studies, 31, (1977), 345-352, states these tenets in roughly the same way.

4. Cf. C.I. Lewis, "The Given Element in Empirical Knowledge," The Philosophical Review, 61 (1952), pgs. 169-175; and Hans Reichenbach, "Are Phenomenal Reports Absolutely Certain?" ibid, pgs. 147-159.

5. Cf. James Van Cleve, "Probability and Certainty: A Reexamination of the Lewis-Reichenbach Debate," Philosophical Studies, 37 (1977), pgs. 323-334.

6. Cf. Mark Pastin, "C.I. Lewis' Radical Foundationalism," Nous, 9 (1975), pgs. 407-420.

7. Cf. James W. Cornman, "On the Certainty of Reports about What is Given," Nous, 12 (1978), pgs. 93-118; and Charles Fritz, "The 'Certainty' of Professor Lewis' Expressive Statements," The Journal of Philosophy, 49 (1952), pgs. 723-732.

8. Cf. Stephen Leeds, "Two Sense of 'Appears Red'," Philosophical Studies, 28 (1975), pgs. 199-205; Margery Naylor, "Chisholm on the Directly Evident," Philosophia, 7 (1978), pgs. 423-440; and Keith Lehrer, Knowledge, (Oxford University Press, Oxford, England, 1974), Chapter 4.