Infinitism and the Epistemic Regress Problem

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Introduction

The purpose of this paper is to show that infinitism is the correct solution to the epistemic regress problem. The paper has four steps.

First, I will make some preliminary comments about the nature of the regress problem in order to make clear what exactly the perceived problem is.

Second, I will discuss a seemingly natural presumption underlying the way in which the regress problem was originally understood by the Pyrrhonians and Aristoteleans. The result of that discussion is that the Pyrrhonian skeptical response to the regress problem is the appropriate one given that presumption. More specifically, if a belief must, itself, be fully justified in order for it to confer full justification on another belief for which it is the offered reason, then no belief is fully justified. By “fully justified” I mean to be referring to the justification condition in the traditional analysis of knowledge. More about that later.

Third, I will discuss two ways in which the presumption can and has been challenged. The first challenge arises from various forms of the reliabilist account of justification including what I call ‘austere reliabilism’

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1 This paper is a re-working of a paper originally published as “Infinitism,” *Routledge Companion to Epistemology*, (see Klein 2011a). In some places entire paragraphs or series of paragraphs are lifted from that paper. I have elaborated some of the arguments in that paper and have amended others. In addition, this paper uses some of the ideas and material in other papers of mine referred to in the “References.” I will note those specific places.

2 I take knowledge to be true, fully justified belief plus a defeasibility condition. I have developed a defeasibility account of knowledge elsewhere (see Klein 1971, 2004), but the issues here do not concern the defeasibility condition. I mention that because the title of this volume concerns conceptions of knowledge and I am here only concerned with one of the necessary conditions. I do not want to leave the impression that fully justified, true belief is knowledge; the full justification must also be not-defeated in order for the belief to rise to the level of knowledge.
as well as various forms of reliabilism that I call ‘embellished reliabilism.’ I will argue that as long as one feature of austere reliabilism is maintained by embellished reliabilism, the normative issues raised by the regress argument have not been successfully addressed. The second challenge originates with contemporary coherentism and infinitism. I will argue that contemporary coherentism is not a viable response. That leaves infinitism as the only viable, non-skeptical response.

Fourth, I will describe infinitism, point to some of its advantages, and show that the primary objections to it miss the mark.

1. Preliminary Comments

Infinitism, along with coherentism and foundationalism, is a view about the structure of reasons and reasoning that is designed to provide a solution to the epistemic regress problem. Where “fully justified” means the property that satisfies the justification condition in the analysis of knowledge, the regress problem is whether reasoning can contribute in a significant way to a belief being fully justified. More specifically, the problem can be put this way: Suppose that in answer to a legitimate question concerning the basis on which we believe some proposition, b, we give a reason, r1. Then, we are asked, again legitimately, for our reason for holding r1, and we provide the reason, r2. Then, we are asked, again legitimately, for our reason for r2, and we give r3. Now, either this process could go on indefinitely, which seems to suggest that nothing has been gained by providing a reason because there is always another one needed; or if some reason repeats, it seems that we have argued in a circle and no such reasoning could provide a good basis for accepting b; or if at some point there is no further reason, it seems that the stopping point is arbitrarily held because there is no reasonable basis for holding it. The problem is that, contrary to strong pre-theoretical intuitions, there seems to be no point in giving reasons for our beliefs. We seem to be no better off epistemically after giving reasons for our beliefs than we were before giving the reasons.

Of course, Pyrrhonian Skeptics would welcome such a result. For it struck them that reasoning could not help to settle matters. But for the purposes of this essay, I will assume that if one of the three ways to address the problem (infinitism, coherentism, foundationalism) can explain

3 I have dealt with this in more detail in Klein (2011b).
how reasoning can contribute to a belief being fully justified, that solution is preferable to skepticism since it tends to validate our pre-theoretical intuitions.

Infinitism holds that the solution to the regress problem is that there is no reason that can be given for any belief which is so privileged that it is immune to further interrogation and, thus, the branching tree of reasons does not terminate in a so-called basic proposition. In addition, although contemporary coherentism shares some features in common with infinitism, full justification does not emerge in the fashion described by the coherence theorist. The key to understanding infinitism is to recognize that if justifying a belief by giving a reason can contribute significantly to a belief being fully justified, then the regress problem has been solved because there is a good explanation of the way in which reasoning can make us epistemically better off.

2. The Traditional Problem

Aristotle gave this gloss of the regress problem in the *Metaphysics*:

> There are … some who raise a difficulty by asking, who is to be the judge of the healthy man, and in general who is likely to judge rightly on each class of questions. But such inquiries are like puzzling over the question whether we are now asleep or awake. And all such questions have the same meaning. These people demand that a reason shall be given for everything; for they seek a starting point, and they seek to get this by demonstration, while it is obvious from their actions that they have no such conviction. But their mistake is what we have stated it to be; they seek a reason for things for which no reason can be given; for the starting point of demonstration is not demonstration.  

Even though Aristotle is speaking about “demonstration,” which refers to a specific form of reasoning that employs syllogisms whose premises are “first principles,” the claim here is that reasoning, in general, reaches an end because there are some privileged stopping points “for which no reason can be given” because “the starting point of demonstration is not demonstration.” No reason needs to be given because reasoning presupposes something not inferred – namely the premises that provide the basis for the reasoning.

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Here is a redacted paragraph about the regress argument from William Alston’s *Epistemic Justification* that illustrates the foundationalist’s basic claim, namely, that a belief is justified by reasoning only if the reasoning ends in a basic, immediately justified belief:

The argument [for foundationalism] is that the original belief [the one that requires justification] will be mediatly justified only if every branch [of the justificatory tree] ... terminates in an immediately justified belief... I do not claim that this argument [the regress argument for foundationalism] is conclusive; I believe it is open to objection in ways I will not be able to go into here. But I do feel that it gives stronger support to foundationalism than any other regress argument.

I will give my own statement of the regress argument for foundationalism below. Here my point is merely that the regress argument is an important tool, if not the most important tool, used to motivate foundationalism.

Foundationalism was proposed as a solution to the classical statement of the regress argument as presented by Sextus Empiricus who used it to provide a *reductio* of the claim that reasoning could provide a way to settle disputed propositions:

The later Skeptics hand down Five Modes leading to suspension, namely these: the first based on discrepancy, the second on the regress *ad infinitum*, the third on relativity, the fourth on hypothesis, the fifth on circular reasoning. That based on discrepancy leads us to find that with regard to the object presented there has arisen both amongst ordinary people and amongst the philosophers an interminable conflict because of which we are unable either to choose a thing or reject it, and so fall back on suspension. The Mode based upon regress *ad infinitum* is that whereby we assert that the thing adduced as a proof of the matter proposed needs a further proof, and this again another, and so on *ad infinitum*, so that the consequence is suspension [of assent], as we possess no starting-point for our argument. The Mode based upon relativity ... is that whereby the object has such or such an appearance in relation to the subject judging and to the concomitant percepts, but as to its real nature we suspend judgment. We have the Mode based upon hypothesis when the Dogmatists, being forced to recede *ad infinitum*, take as their starting-point something which they do not establish but claim to assume as granted simply and without demonstration. The Mode of circular reasoning is the form used when the proof itself which ought to establish the matter of inquiry requires confirmation derived from the matter; in this case, being unable to assume either in order to establish the other, we suspend judgement about both.5

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5 Alston (1989), 54 f.
6 Empiricus *PH I*, 166–169.
There are five modes mentioned in the passage from Sextus Empiricus. The modes of relativity and discrepancy are crucial to understanding the reductio put forth by Sextus because those modes are designed to show that neither a judgment based solely on how things appear nor a judgment based upon what we collectively hold to be true (either qua “philosophers”, i.e., experts, or qua “ordinary” persons) is so privileged that it does not need to be supported by further reasoning. There will always be a basis for an initial challenge to such judgments and, if they are to be answered effectively, reasoning will have to adjudicate disagreements. Considerations similar to those motivating the modes of relativity and discrepancy form part of the motivation for infinitism and will be discussed later.

The foundationalist’s answer to the skeptical conclusion is that there must be some basic propositions that need not be justified by further reasoning because, to put it bluntly, reasoning cannot create epistemic justification, it can only transfer it from the premisses to the conclusion. From the foundationalist’s perspective, the problem is typically not whether there are fully justified beliefs; the problem is, rather, how fully justified beliefs arise and how full justification is transferred.

This is clear, for example, from Aristotle’s dismissive attitude towards skepticism manifested in the quotation above, and even more clearly in the Posterior Analytics in which he begins by arguing that if some knowledge is the result of demonstration, then some knowledge must not be the result of demonstration. For either the series of demonstrations terminates or it doesn’t. It must terminate, because “one cannot traverse an infinite series.” But if it terminates, it cannot terminate in another proposition that requires a demonstration because the conclusion would not be “properly” known because it “rests on the mere supposition that the premisses are true.”

There is another logically possible structure of reasoning, namely circular reasoning, that Aristotle considers and rejects because the premisses in a demonstration must be “prior to and better known than the conclusion” and “the same things cannot be simultaneously both prior and posterior to one another.” Thus, if there is demonstrative knowledge, then there must be non-demonstrative knowledge. He never takes the sceptical possibility seriously and says that his “own doc-

trine is that not all knowledge is demonstrative; on the contrary, knowledge of the immediate premisses is independent of demonstration.”

Near the end of the Posterior Analytics he provides a sketch of how such knowledge reliably originates with sensation and ends with rational insight. The details of Aristotle’s proto-reliabilist sketch are not important at this point, although I will return to it and a general discussion of reliabilism in the next section. What is important here is to present the regress argument for foundationalism that underlies both traditional and contemporary foundationalism.

The regress argument for foundationalism

1. Reasoning in support of a belief can have only three structures: it is finite and has a beginning point, it is circular, or it is infinite.
2. Circular reasoning is not acceptable because a belief would have to be epistemically prior to itself.
3. Reasoning infinite in length could not be carried out by humans.
4. Thus, if there is knowledge that results from reasoning, the reasoning must be finite in length.
5. The beginning points of the reasoning must be known (otherwise it would be mere supposition.)
6. Thus, if there is knowledge that results from reasoning, there must be some beliefs that are known by some process other than reasoning.

The conclusion is the basic claim made by the foundationalist, namely, if there is some knowledge that is the result of reasoning, some knowledge is not the result of reasoning. Note the hypothetical nature of the conclusion. Although most foundationalists eschew skepticism, a foundationalist need not hold that there is knowledge based upon reasoning in any specific area, or even in general. There can be and have been skeptical foundationalists: Hume, for example. There can be non-skeptical foundationalists: Locke and Descartes, for example.

11 This paragraph is slightly revised from Klein (2007a), 2 f.
12 Hume, of course, appealed to custom and habit as providing a basis for knowledge of matters of fact. Thus, he was not a skeptic about knowledge of matters of fact. He was, however, a skeptic about knowledge of matters of fact based upon reasoning.
I think it is fair to say that there is one core presupposition underlying the foundationalist “solution” to the regress problem:

**Inheritance Principle**: Reasoning cannot originate any form of justification but merely transmits justification from one belief to another.

The difficulty with foundationalism, according to the Pyrrhonians, is that although Aristotle might be right that in practice we do not push for reasons beyond those that are taken for granted by all of the participants in a discussion, that kind of contextualist agreement does not indicate the presence of basic beliefs whose truth cannot be challenged. Indeed, the Pyrrhonians would remind the foundationalists that this is where the modes of relativity and discrepancy come into play. The objects of perception and the objects of mutually agreed upon opinion can be subjected to interrogation. The fact that they are typically not challenged is not a good reason for thinking that they cannot legitimately be challenged. That’s not to say that reasons for holding such beliefs can’t be located. Typically foundationalists will have reasons for thinking that the so-called basic propositions are true. Rather it is to say that the so-called basic beliefs are not privileged in the way required by foundationalism.

In the next section, I will give some reasons for thinking that the Pyrrhonians were right in thinking that the so-called foundational beliefs are not immune to further interrogation, and thus, the appeal to foundational propositions will not provide the basis for a solution to the regress problem. For now, let us merely assume something that I will argue for later, namely, that the so-called foundational beliefs are like all other beliefs in that there are legitimate questions that can be raised about their truth and once those questions are raised, the so-called foundational beliefs require reasons in order to be fully justified.

It is important to note that the Inheritance Principle is telling against infinitism and circular reasoning, if both views were to accept the principle. If reasoning cannot originate any aspect of epistemic justification, then neither infinitism nor the circular form of coherentism can explain how justification arises in the first place.

To see that, let us begin with infinitism. If the Inheritance Principle were correct, each step in the potentially infinite reasoning process would inherit whatever justification it has from the previous step in the reasoning process. So, the infinitist’s account of justification cannot provide an explanation of how justification arises in the first place.
Here’s how one contemporary foundationalist, Carl Ginet, puts this point:

A more important, deeper problem for infinitism is this: Inference cannot originate justification, it can only transfer it from premises to conclusion. And so it cannot be that, there actually occurs justification, it is all inferential.  

Another contemporary foundationalist, Jonathan Dancy, makes a similar point:

Suppose that all justification is inferential. When we justify belief A by appeal to belief B and C, we have not yet shown A to be justified. We have only shown that it is justified if B and C are. Justification by inference is conditional justification only; A’s justification is conditional upon the justification of B and C. But if all justification is conditional in this sense, then nothing can be shown to be actually non-conditionally justified.

Similarly, if the Inheritance Principle were correct, circular reasoning can only transmit some features of justification from one belief to another and no account of the origin of those features of justification would have been provided. Consider the analogy of basketball players standing in a circle and passing the ball to each other. Once the ball is there, it is clear how it can be passed from one player to another. But the question is this: How did it get there in the first place?

The upshot, from the Pyrrhonian point of view, is withholding beliefs. To them, what looked like a good argument for foundationalism actually provides a basis for a skeptical attitude towards beliefs if one grants that contextually basic propositions do not, thereby, gain full epistemic justification.

3. Responses to the Skeptic’s Use of the Regress Argument

Aristotle was not content with the contextualist response mentioned in the previous section. In the *Posterior Analytics* he provides the sketch of another type of response, namely one designed to provide a basis for thinking that some basic beliefs arise by a process that is reliable. Here is a somewhat redacted and interpolated quotation that remains true

13 Ginet (2005), 148.
14 Ginet correctly points out that at one time I did not fully understand the point Dancy was making. (Ginet 2001, 148.)
15 Dancy (1985), 55.
to the basic Aristotelean view. I have indicated exact quotes with double quotation marks:

In order for us to acquire the basic propositions “we must possess a capacity of some sort” which is “a characteristic of all animals, for they all possess a congenital discriminative capacity which is called sense-perception. But though sense perception is innate in all animals, in some the sense-impression comes to persist, in others, it does not.” In those animals in which sense perception persists, there “comes to be what we call memory, and out of frequently repeated memories of the same thing develop experience … [and] from experience … originate the skill of the craftsman and the knowledge of the man of science”.16

The essence of this proposal is what I call ‘austere reliabilism’ which holds that if the process that produces a given belief does so reliably and does not take other beliefs as inputs, then such a belief is fully justified and, ceteris paribus, it rises to the level of knowledge. Here is a relatively recent example (at least as compared to Aristotle’s discussion!) discussed by A. J. Ayer:

Suppose that someone were consistently successful in predicting events of a certain kind, events, let us say, which are not ordinarily thought to be predictable, like the results of a lottery. If his run of successes were sufficiently impressive, we might very well come to say that he knew which number would win, even though he did not reach this conclusion by any rational method … We might say that he knew it by intuition, but this would be to assert that he did know it but that we did not know how.17

Ayer goes on to say that in cases like this one in which there are no “recognized criteria for deciding when one has the right to be sure… we are left free to decide” whether the verb “to know” applies.18 Austere reliabilists would “decide” that this is a case of knowledge.

I think such a “decision” simply ignores the normative intuition that a belief for which we have reasons is more fully justified than a belief produced by the same process for which we don’t have reasons. Of two successful lottery-winner predictors, the one who can provide a basis for believing that he is correct is better justified in his predictions than the one who cannot. Imagine that the first person has checked every time whether his predictions are true and can offer the track record as a reason for believing his current prediction is true compared to a second person who has never checked to see whether he is right.

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17 Ayer (1956), 32–33.
18 Ayer (1956), 34.
The first person might be deemed to have knowledge, but the second one is surely epistemically better off simply because he has reasons for his beliefs.

‘Embellished reliabilism’ does not adhere strictly to the Inheritance Principle mentioned above because it allows that reasoning can produce either a new type of epistemic justification or augment the amount of epistemic justification. Nevertheless, embellished reliabilism, like austere reliabilism, holds that some beliefs, namely so-called basic beliefs, have a type of epistemic justification that rises to the level of knowledge merely because of the truth conducive way in which the belief was produced. But embellished reliabilism holds that once the so-called basic beliefs or those inferred from them become members of a set of beliefs that have been subjected to careful self-reflection – including reflection about the reliability of our (or, in a Cartesian mode, my) epistemic capacities – a different characteristic of full justification can emerge. Here is a passage from Ernest Sosa that makes that very point:

Admittedly, there is a sense in which even a supermarket door “knows” when someone approaches, and in which a heating system “knows” when the temperature in a room rises above a certain setting. Such is “servo-mechanic” knowledge. And there is an immense variety of animal knowledge, instinctive or learned, which facilitates survival and flourishing in an astonishingly rich diversity of modes and environments. Human knowledge is on a higher plane of sophistication, however, precisely because of its enhanced coherence and comprehensiveness and its capacity to satisfy self-reflective curiosity. Pure reliabilism is questionable as an adequate epistemology for such knowledge.19

I share Sosa’s view about the importance of what is distinctive about human knowledge, as opposed to servo-mechanical knowledge. We find it important to have reasons for our beliefs whenever those beliefs are challenged. There might be some sort of knowledge that arises whenever the process which produces the belief is appropriately and sufficiently reliable, but what is distinctive about human knowledge is the importance of reasoning in making a belief fully justified.20

19 Sosa (1991), 95.
20 I do not mean to be claiming that only humans offer reasons for beliefs and find it important to do so. Maybe other entities, of which we are as yet unaware, do that. But if they do, then they, too, acknowledge this normative imperative that is not captured or acknowledged by austere reliabilism. I should also mention that although I agree with Sosa that there is an important distinction between what he calls pure reliabilism (which I think parallels what I mean by “austere
Consider how a belief can become justified. On the one hand, austere reliabilists think of a belief being justified in virtue of the process that produces the belief. And surely it can be granted that one characteristic of a fully justified belief depends upon the type of process that produced it. But just as surely, by giving reasons for our beliefs we justify the beliefs. We make them justified by giving reasons. “To justify” is factive in the same sense that “to rectify,” “to clarify,” and “to codify” are factive. If we justify a belief, the belief is justified. If we rectify a situation, the situation is rectified, etc. In this sense of “justified,” processes don’t justify beliefs, people do.

Our fully justified beliefs share one feature in common with some of the representational states of animals and other entities that possess servo-mechanical knowledge. They are produced by a reliable process, i.e., a process that results in accurate representations sufficiently often. But what is distinctive about adult human justified beliefs is that they gain one important feature of fully justified beliefs because we justify them. Thus, there are at least two distinct properties that fully justified beliefs have: (i) they are reliably produced and (ii) they are made justified by the reasons we use to support them. I use “fully justified” to refer to beliefs that have at least those two properties. There might be other properties that such beliefs have, but for our purposes it is sufficient to note these two in order to (i) clarify the normative intuitions motivating the regress problem, (ii) show the inadequacy of the foundationalist and contemporary coherentist responses, and (iii) explain the infinitist solution to the regress problem.

However, it is not my purpose here to examine either austere or embellished reliabilism in detail because, although the latter recognizes the normative imperative to provide reasons for at least some of our beliefs in order to fully justify them, both forms fail to fully recognize the fundamental intuition informing the regress — namely that no belief can
reach the status of being fully justified for S if S has no reasons for believing it.

Now, if it is correct that no belief can be fully justified for S if S does not justify it, and if reasoning cannot be circular (and I take it that Aristotle and the Pyrrhonians were right about the fact that circular reasoning cannot increase the degree of justification of the target belief), then infinitism is the only solution to the regress argument.

To see that, consider any proposed ending belief in the regress, call it “E”. One can ask the self-reflective thinker the following question: In virtue of what is E an epistemically proper ending point? If no answer is forthcoming, then it clearly appears arbitrary (as the Pyrrhonians would say) to believe E without a reason. Up to that point reasons were needed. Why should the regress end at E rather than at some earlier step or at some possible later step?

Suppose the answer is that E is the appropriate ending belief in virtue of E’s having some foundational property, F. Then, the next question becomes: Does E’s possessing F make it more likely that E is true than it would be if E did not possess F?

It seems clear that there is a normative imperative to produce an answer which, if correct, would provide some good evidence for believing that possessing F is truth-conducive. Consider what I have called elsewhere a “Wednesday Foundationalist” – a foundationalist who holds that any belief arising on Wednesday has the austere form of justification.21 Of course, no one is such a foundationalist because there is absolutely no reason to believe that Wednesday-beliefs are any better than, say, Friday or Sunday-beliefs.

Foundationalists pick F-properties that are truth-conducive. For example, Aristotle’s description of the process by which we reach the first principles was designed to show that the process was truth conducive. There are arguments that are designed to show that evolution would have favored truth-conducive perceptual and rational modalities, so those modalities if “properly” functioning in the appropriate environment would produce truths. There are arguments to the effect that if we believe that we are in some kinds of mental states, then we are. For example, if we believe that we are in pain, then we are in pain. There are arguments to the effect that if we have a reddish-seeming sense impression, then if we are aware of no infelicitous circumstances, it is likely that there is a reddish something. There are arguments with

21 Klein (2007a), 15.
the conclusion that ‘clarity and distinction’ is the test of truth, etc. My point is not that any of those arguments are sound or that they are unsound; rather my point is that foundationalists will pick F-properties for which they think such arguments can be formulated. By doing so, they have tacitly acknowledged that the regress does not stop with the assertion of E or the assertion that E has property F.

Once the question is asked and understood about whether E’s possessing F is truth conducive, there are four possible responses available to some person, S: It can be ignored, or “yes,” or “no,” or “I don’t know.” I take it that ignoring the question is to fail to grasp the normative imperative underlying the regress argument, and both the “no” and the “I don’t know” answers preclude S from using E to justify further beliefs. Although E might have the type of justification that austere reliabilism attributes to it, it cannot be used by S to fully justify another belief because S thinks either that there is no reason to think E is true because it possesses F or S remains agnostic about that. In either case, S could not employ E to justify another belief. In other words, E cannot be used by S in the way that foundationalism requires.

This argument against foundationalism works against the current forms of emergent coherentism as well – and that form is the only initially plausible form of coherentism. The other form – what I call transference coherentism – was probably never held since it takes individual propositions to be the primary bearers of justification and embraces circular reasoning by accepting the inheritance principle. As mentioned above, that logically possible but completely unsatisfying view was well disposed of by Aristotle and the Pyrrhonians.

Emergent coherentism is best exemplified by BonJour. In this view, it is sets of propositions that are the primary bearers of justification. All propositions in the appropriate kind of coherent set are justified simply in virtue of being members of that set. Thus, justification is not transferred from one proposition to another – rather justification emerges as a result of the mutual support provided by the propositions in the set.

As Ernest Sosa has pointed out, this form of coherentism shares a formal structure with foundationalism. Using the terminology I am employing, the emergent coherentist takes the foundational property F to be E’s being a member of a set of propositions that is coherent (and perhaps

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22 BonJour (1985), 87–110.
23 Sosa (1980).
has other features as well). In other words, emergent coherentism can be seen as one-step foundationalism because all propositions in the coherent set have some degree of prima facie justification. Perhaps some are relatively “more foundational” than others because they are more important to the coherence of the set. But they all have some prima facie justification in virtue of being members of the appropriate kind of set.

For the sake of the argument, let us suppose that some characteristic of full justification could emerge this way (as opposed to the way in which the austere and embellished reliabilists think prima facie justification emerges). My point remains that the regress does not stop with a belief that is immune to questioning because once F is so identified by the coherentist, the question arises about whether E’s being a member of a coherent set is truth-conducive. Perhaps some characteristic of full justification emerges as the coherentists claim, but because no belief is immune to interrogation and the reasons for believing the proposition cannot contain the proposition itself, the central claim of infinitism has been granted, namely that there is no privileged belief that is immune to further interrogation.

Now it could be objected 1) that this very general argument for infinitism conflates the important distinction between a belief itself being fully justified with the meta-belief that the belief is fully justified and 2) that knowledge only requires that the belief be fully justified.

In order to answer that objection, it is important to distinguish two senses of “belief” and the concomitant two senses in which a belief is justified. In one sense, “belief” refers to the propositional content of a belief-state as in “that belief is true” or “her belief was implied by what she said earlier.” In the other sense, “belief” can refer to the belief-state as in “she had that belief for many years” or “her belief was caused by a reliable process.” The concomitant distinction regarding justified belief is between the proposition being justified, i.e., propositional justification, and the believing (i.e., the state of believing) being justified, i.e., doxastic justification. The distinction was first introduced by Roderick Firth.

The level-confusion objection is appropriate with regard to propositional justification. There is a clear distinction between a proposition, say p, being justified and the meta-proposition ‘p is justified’ being jus-

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tified, and any argument that conflated the distinction is built upon a pun. I am willing to grant that in order for the proposition, p, to be justified for a person, it is not required that 'p is justified' is justified for the person.

The regress argument, at base, is concerned with whether there is any form of reasoning that S can deploy to fully justify a belief – in order for it to become knowledge (if the other necessary and jointly sufficient conditions obtain). Thus, it is crucial to keep in mind that the ‘justification’ condition in knowledge does not refer to propositional justification; rather it is S’s believing that must be fully justified. A proposition, p, could be fully justified (and true), but fail to be known if either S failed to believe that p or S believed p for the wrong reasons, i.e., reasons that did not provide for propositional justification. What is required for knowledge is that S’s believing that p be justified.

Once the question is raised concerning whether E’s possessing F makes it more likely that E is true than it would be if E did not possess F, it is S’s entitlement to continue to believe that p that is being questioned. If S is not able to defend the “yes” answer to the question given above, some adjustment of S’s entitlement to believe E and every belief that justificationally depends upon E is called for. It is not required that S gives up E because E might possess the kind of epistemic justification that austere reliabilism would attribute to it and, as Ayer would say, S has some sort of right to believe E, but those views that recognize the importance of having reasons for our beliefs when their epistemic credentials are challenged (i.e., embellished reliabilism, coherentism, and infinitism) would require some recalibration of our entitlement to continue believing that p.

In other words, it should be clear that the normative force of the regress applies primarily to the requirement that S’s believing be fully justified; and answering the “meta-question” whether E’s possessing F makes it more likely that E is true is directly relevant to determining whether S’s believing that E is fully justified. It is only austere reliabilists who will not grant this point. For them, the belief that p is fully epistemically justified (i.e., it satisfies the justification condition of knowledge) just in case it is produced by an appropriate process. As mentioned above, the normative force behind the regress argument is that having reasons for believing a proposition adds an important feature of full justification. The regress is only problematic when it is seen from the standpoint of normative epistemology in which knowledge is taken to
be the most highly prized form of true belief – where, of course, it is the belief-state that is prized, not the propositional content.²⁶

4. Infinitism

Recall the Inheritance Principle that motivated foundationalism. That principle seemed intuitively plausible and it clearly rules out infinitism as a solution to the regress problem. For even if we had infinite time to produce reasons, it remains mysterious, if not downright impossible, that some belief could ever be fully justified because reasoning cannot originate justification. Coupled with the fact that compared to an infinitely enduring being, we live less than a nanosecond, the upshot seems to be that the Pyrrhonians were right after all. Suspension of belief is the only warranted attitude.

The answer to this worry and the key to understanding infinitism is that the Inheritance Principle is false, even though it motivates foundationalism and seems plausible at first glance fails. The principle fails to recognize that there are at least two important characteristics of a fully justified belief. As I have granted, one characteristic is acquired by a belief in virtue of the causal process that brought it about, but the other characteristic is acquired by a belief when we justify it by providing reasons for believing it. Providing reasons for a belief contributes significantly to its full justification. Thus, although there is one characteristic of a fully justified belief that does not originate from reasoning, another characteristic of a fully justified belief does originate from reasoning. Hence, the Inheritance Principle is false.

Put another way: A reason, r, for a belief, b, can be used by S to provide b with a type of justification that r, as yet, does not possess because no reason for r has yet been given by S. So, in spite of it sounding odd to our well conditioned foundationalist ears, b could be known without r being known because b could be fully justified without r being fully justified.

The infinitist will take the belief that p to be doxastically fully justified for S only if S has justified the belief that p by providing “enough” reasons. We could say that S is certain that p, i.e., completely doxastically fully justified, only if every reason in a limitless path of reasons were provided. But since it takes some time to discover and offer reasons,

even though a *proposition* might be completely justified (if there is a suitable endless path of reasons), no *belief* could ever be completely doxastically fully justified. Thus, nothing is ever completely settled in the sense that it is beyond further interrogation, but S can fully justify a belief by providing adequate reasons for believing it, assuming the belief also has the appropriate causal pedigree. How far forward in providing reasons S needs to go seems to me to be a matter of the pragmatic features of the epistemic context – just as which beliefs are being questioned or which can be taken as reasons is at least partially contextually determined.²⁷

### Responses to some objections to infinitism

Infinitism has seemed to many people to be so implausible that it has not even been a serious contender with foundationalism or coherentism for a solution to the regress problem. Usually, the objections are not clearly articulated because the view seems so initially implausible. I hope the previous sections have provided infinitism with enough initial credibility so that considering some of the objections has become worthwhile.

1. **The finite mind objection**

Aristotle correctly observed that beings with a finite mind cannot traverse an infinitely long inference path. And that seemed to stop infinitism in its tracks. But infinitism – or at least the kind that makes proper use of the distinction between propositional and doxastic justification, and the distinction between the two very different characteristics of a doxastically fully justified belief – does not require that an infinite set of reasons be produced in order for a belief to rise to the level of the most highly prized form of true belief. Knowledge requires being able to provide enough reasons for our believing to be fully justified, it does not require us to provide an infinite number of reasons.

What constitutes “enough” reasons requires careful elaboration and I have not done that here. Such an elaboration would include a discussion of the role of the contextual considerations that make further questioning either necessary because a legitimate question has been raised or frivolous because the amount of added warrant that further investigation

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²⁷ See Klein (2005a,b); (2007a,b); and Fantl (2003).
would produce is minuscule. Those issues are beyond the scope of this essay.

2. The no-starting point objection

The Pyrrhonians said that the process of reasoning endorsed by infinitism could not succeed in justifying a belief sufficiently for us to adopt it because “we possess no starting-point for our argument.” That objection has an intuitive tug if one adopted the Inheritance Principle — and at first glance that principle seemed correct. But I hope I have dispelled its intuitive appeal by showing how reasoning can produce a new type of justification that is not inherited from the offered reason.

3. Skepticism

Some philosophers have argued that knowledge entails certainty, where certainty includes at least having finally settled the matter. And they would point out that infinitism makes that kind of certainty impossible and, thus, infinitism leads to skepticism. There are two replies to this objection.

First, as I mentioned earlier, there are both skeptical and non-skeptical forms of foundationalism. There would be skeptical forms of coherentism if no belief set held by creatures like us could be sufficiently coherent to satisfy the requirements of knowledge. In a similar vein, there certainly could be skeptical forms of infinitism that held that the normative requirements of justification simply cannot be fulfilled. But, although the fact that a theory of justification leads to skepticism might provide a basis for looking more carefully at whether the theory is correct, that fact, alone, does not strike me as a sufficient reason for rejecting the theory. Skepticism is a logically possible view.

Second, the form of infinitism that I am defending does not lead to skepticism. It is a form of fallibilism that eschews certainty, where certainty is construed as requiring that the degree of epistemic justification necessary for knowledge makes the belief immune to further interrogation. Indeed, I think the form of infinitism articulated here can explain why certainty is taken to be both a relative notion as when we say that one belief is more certain than another and an absolute notion as when we say that a belief is certain only if there is no belief that is more certain. It can also explain why absolute certainty cannot be obtained because any belief can always be made a little more certain by producing more reasons along the path of reasons while at the same time it can ex-
plain how a belief can be certain enough to rise to the level required by knowledge.\textsuperscript{28}

4. \textit{Infinitism really endorses a form of arbitrary foundationalism}

It has been claimed that 1) infinitism is really a form of an unjustified (arbitrary) foundationalist view and 2) that a “bad” reason, \( r \), could justify a belief, \( b \).\textsuperscript{29} That it is not foundationalism should be clear because it eschews the central claim of foundationalism, namely, that there are some beliefs immune to further interrogation.

The answer to 2) is more complex. There are several distinct factors that could make a reason “bad” for believing \( b \): i) A reason, \( r \), could be “bad” because it was not formed in a reliable manner. Such a bad reason could not transfer the kind of warrant required by the austere reliabilist to \( b \) by reasoning, and consequently, neither \( b \) nor \( r \) would be knowledge – even according to the infinitist. In other words, the infinitist can embrace the reliabilists’ basic insight that a belief must be properly caused in order to be knowledge. ii) A reason, \( r \), could be “bad” because there is \textit{no} further reason for it. But note that in such a case, \( r \) couldn’t have been formed reliably because being so formed is a reason for thinking it is true. Hence, what was said with regard to (i) applies here as well. iii) A reason, \( r \), could be “bad” because \( S \) does not have available an answer to the question as to why she believes that \( r \) is likely to be true. In such a case, although \( b \) has gained some justification because \( r \) was produced as a reason for believing \( b \), some recalibration of \( b \)’s degree of justification is warranted. That strikes me as just what a theory of justification should dictate. We are epistemically better off by possessing \( r \) as a reason for \( b \) than we would be if we had no reason for believing \( b \), but we are not completely in the epistemic clear. If it is sufficiently important that believing \( b \) be fully justified to a greater degree – we have more work to do. iv) A reason, \( r \), could be “bad” because it is false or there is a defeater of the reason for \( r \). If it is false, there is a defeater of the inference from the “bad” reason (namely, \( \neg r \)). Infinitism, per se, is an account of only the justification condition in knowledge; an infinitist, like me, can include a no-defeater condition in the necessary conditions for knowledge.

\textsuperscript{28} See Klein (2005c).
\textsuperscript{29} See Bergmann (2007) for the objection and Klein (2007b) for a response.
I have argued that (i) neither foundationalism nor coherentism can provide a solution to the epistemic regress problem and (ii) there is a form of infinitism that provides a solution to the regress problem by explaining how reasoning can increase the epistemic worth of a belief, and (iii) the objections to infinitism can be answered successfully.

(i) Neither foundationalism nor coherentism can explain how reasoning can increase the epistemic worth of a belief because each supposes that there are some prima facie fully justified beliefs whose full justification does not depend upon other beliefs being justified. I argued that there are no such prima facie fully justified beliefs because their full justification depends upon their being reasons for believing that whatever property makes them prima facie justified also makes them likely to be true.

(ii) The form of infinitism that was developed and defended holds that reasoning can generate some important characteristics of a fully justified belief, where “fully justified belief” refers to the type of justification required for what is distinctively adult human knowledge. That form of infinitism necessitated jettisoning a cherished epistemic principle that required that in order for a belief to acquire some positive epistemic status it could do so only if that positive status was inherited from another belief that already possessed that status. I argued that the Inheritance Principle failed to take into account that the act of justifying a belief gives it a positive epistemic status that the reason might not yet enjoy. Hence reasoning can increase the epistemic status of a belief. It does not only transfer the epistemic status.

(iii) I have considered what I think are the best objections to various forms of infinitism and argued that those objections miss the mark because they mischaracterize what infinitism is committed to. No doubt there are other objections that have not been dealt with here or have yet to be formulated.\(^\text{30}\) New objections will develop because infinitism is a view that has only recently been taken with enough seriousness to be explored carefully. When those objections arise, new reasons will have to be found to strengthen the case for infinitism. But that is, as it should be.

\(^{30}\) Some additional objections are discussed in Klein (1999), (2005a,b), and (2007a,b)
References

Empiricus, S., all citations are to Bury, R.G. (1976), Outlines of Pyrrhonism, Cambridge.