

THE PYRRHONIAN PROBLEMATIC AND GENERALITY
IN ARGUMENTS CONCERNING THE
STRUCTURE OF JUSTIFICATION

BY

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Abstract

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Some of the most interesting criticisms of foundationalism, coherentism, and infinitism have been shown to be rather general: some criticisms of a particular theory can be shown to apply to the competitor theories as well. This opens the door for a number of important questions. How many of the prominent arguments for or against the various structural theory theories can actually be generalized in the sense of applying to all competing theories? What does it mean if an argument or criticism can be generalized? If the property of generality is pervasive among prominent arguments, why is it pervasive? If the property of generality is pervasive among prominent arguments, what should we make of it? What would the consequences be for the debate about the structure of justification if generality is pervasive?

We prepare the groundwork necessary to answer these questions. We explore foundationalism, coherentism, and infinitism so that we may assess a sample of the most

prominent arguments concerning these theories. In particular, we study the regress argument for foundationalism, the alternate systems objection to coherentism, and the finite minds objection to infinitism. In the course of our study we find a peculiar result. For any of the three arguments, if we press it, the core permute into a general argument. In other words, the reasons offered in support of a given theory or to criticize a particular theory can, if pressed, be generalized such that they apply to all structural theory theories of justification. What should we make of this peculiar result? It is hard to say. While we cannot begin to explain this peculiarity in the present essay, we sketch a number of possible interpretations before closing.

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1. Précis of the Thesis

The Pyrrhonian problematic is the perennial challenge to the possibility of a structural theory of justification or knowledge. A structural theory of knowledge describes the structural features of knowledge while remaining silent as to the question whether anyone, in fact, knows anything. A structural theory of justification does the same for epistemic justification. Such a theory is hypothetical: *if* someone possesses an item of knowledge (or justification), that item of has such-and-such features. Thus a structural theory of knowledge (or justification) is, in principle, logically consistent with the thesis of global ignorance (Klein 2007a: 4). It might well be the case that no one, in fact, knows anything but that if anyone did know anything, whatever was known would have those features described by the correct structural theory.

The conclusion of the trilemma is a skeptical one suggesting that no structural theory is possible. Theorists have generally taken the skeptical conclusion as a *reductio ad absurdum* for at least one of the premises of the ancient trilemma, leading to the development of the three competing structural theories of justification: foundationalism, coherentism, and infinitism. In light of dialectical competition among these options, theorists have adduced arguments – some quite famous – thought to be specific to one structural theory in an attempt to support the theorist’s pet theory or refute competitor theories.

As it turns out, some of the most interesting criticisms of foundationalism (whether from coherentists or infinitists), coherentism (whether from foundationalists or infinitists), or infinitism (whether from foundationalists or coherentists) have been shown to be rather general: some criticisms of a particular theory can be shown to apply to the competitor theories as well. Lawrence BonJour’s argument from doxastic ascent stands as a recent example. We contend that

similar results can be achieved, if only on a limited basis, when arguing *for* a particular theory. This opens the door for a number of important questions. How many of the prominent arguments for or against the various structural theory theories can actually be generalized in the sense of applying to all competing theories? What does it mean if an argument or criticism can be generalized? If the property of generality is pervasive among prominent arguments, why is it pervasive? If the property of generality is pervasive among prominent arguments, what should we make of it? What would the consequences be for the debate about the structure of justification if generality is pervasive?

While we cannot begin to claim to answer any of these questions, we prepare the groundwork necessary to answer them. It is chiefly the purpose of the present essay to explore foundationalism, coherentism, and infinitism as the consequences of the ancient trilemma. We explore these structural theories so that we may assess a sample of the most prominent arguments concerning these theories. In particular, we study the regress argument for foundationalism, the alternate systems objection to coherentism, and the finite minds objection to infinitism. Admittedly, the cogency among these three arguments vary (the former two being much better arguments than the latter), we choose these arguments because of their traditional prominence in the literature.

After we complete our exploration of foundationalism, coherentism, and infinitism, we study the three aforementioned arguments and find a peculiar result. For any of the three arguments, if we press the argument, its core elements permute into a general argument. In other words, the reasons offered in support of a given theory or to criticize a particular theory can, if pressed, be generalized such that they apply to all structural theory theories of justification. What

should we make of this peculiar result? It is hard to say. While we cannot begin to explain this peculiarity in the present essay, we sketch a number of possible interpretations before closing

1.1 Agrippa's Trilemma

Agrippa's Trilemma (also called "the ancient trilemma" and "the Pyrrhonian problematic") is perhaps the most famous of ancient skeptics' arguments. It is a special argument for skepticism. It is the perennial argument against the possibility of a structural theory of knowledge.

The trilemma appears in a terse passage of Sextus Empiricus's *Outlines of Scepticism*:

In the mode deriving from infinite regress, we say that what is brought forward as a source of conviction for the matter proposed itself needs another such source, which itself needs another, and so *ad infinitum*, so that we have no point from which to begin to establish anything, and the suspension of judgment follows. ... We have the mode from hypothesis when the Dogmatists, being thrown back *ad infinitum*, begin from something from which they do not establish but claim to assume simply and without proof in virtue of a concession. The reciprocal mode occurs when out to be confirmatory of the object under investigation needs to be made convincing by the object under investigation; then, being unable to take either in order to establish the other, we suspend judgment about both (Sextus 2000: 41).

A similar passage exists in the *Lives of Eminent Philosophers*, chronicled by Diogenes Laertius:

But Agrippa and his school added to them five other modes, resulting respectively from disagreement, extension *ad infinitum*, relativity, hypothesis, and reciprocal inference. The mode arising from disagreement proves, with regard to any inquiry whether in philosophy or in everyday life, that it is full of the utmost contentiousness and confusion. The mode which involves extension *ad infinitum* refuses to admit that what is sought to be proved is firmly established, because one thing furnishes the ground for belief in another, and so on *ad infinitum*. The mode derived from relativity declares that a thing can never be apprehended in and by itself, but only in connection with something else. Hence all things are unknowable. The mode resulting from hypothesis arises when people suppose that you must take the most elementary things as of themselves entitled to credence, instead of postulating them: which is useless, because some one else will adopt the contrary hypothesis. The mode arising from reciprocal inference is found whenever that which should be confirmatory of the thing requiring to be proved itself has to borrow credit from the latter, as, for example, if anyone seeking to establish the existence of pores on the ground that emanations take place should take this (the existence of pores) as proof that they are emanations (Diogenes 2005: 501).

The argument proceeds roughly as follows. Take any arbitrary proposition *p* that an epistemic agent *S* affirms. The trilemma outlines three possible models *S* can employ in the attempt to justify the belief that *p*.

The first is a model of an endless regress of reasons. When asked why *S* believes that *p*, *S* offers and affirms *q*. When asked why *S* affirms *q*, *S* offers and affirms *r*. When asked why *S* affirms *r*..., so on *ad infinitum*. The trilemma suggests that the problem with this model is that

there is no way to motivate the justification of a given belief. Moreover, finite minds cannot have an infinite number of beliefs. Ergo, the first model cannot be the correct model for the structure of justification for S's belief that p.

The second is a model of terminal reasons. When asked why S believes that p, S offers and affirms q. When asked why S affirms q, S ceases and terminates the chain of reasons at q. The trilemma suggests that the problem with this model is that the terminus is arbitrary. Without any good reason to accept q, it is puzzling how it could appropriately justify S's belief that p. Ergo, the second model cannot be the correct model for structure of justification for S's belief that p.

The third is a model of circular reasons. When asked why S believes that p, S offers and affirms q. When asked why S affirms q, S offers and affirms r. When asked why S affirms r, S offers and affirms p. The trilemma suggests that the problem with this model is that it endorses circular reasoning, which is fallacious. Ergo, the third model cannot be the correct model for the structure of justification for S's belief that p.

In short, the Pyrrhonian problematic contends that epistemic justification "must either proceed in a circle, lead to a regress, or be ended by some mere assumption" (Lehrer 1989b: 141). Given that none may be a satisfactory structural theory of epistemic justification for S's belief that p at t, skepticism obtains.

1.2 Three Justificatory Principles

We may crystallize these considerations with the following three principles. By "justifier" we refer to a proposition or belief that supports a proposition or belief. By "justifier ancestry" we

refer to the links in the chains of justifiers, sometimes branching, that support beliefs (Klein 1999: 298):

Principle of Avoiding Regress (PAR): for all propositions, x , if x is warranted for a person S , at t , then there is some justifier, j_1 , available to S for x at t ; and there is some justifier, j_2 , available to S for j_1 at t , etc., and there is some justifier, j_n , available to S for j_{n-1} at t such that no further justifier, j_{n+1} , is needed for j_n for S at t .

Principle of Avoiding Arbitrariness (PAA): for all propositions, x , if x is warranted for a person S , at t , then there is some justifier, j_1 , available to S for x at t ; and there is some justifier j_2 , available to S for j_1 at t , etc., and there is no last reason in the series (Klein 1999: 299; Klein 2005a: 136).

Principle of Avoiding Circularity (PAC): for all propositions, x , if x is warranted for a person S , at t , then for all y , if y is in the justifier-ancestry of x for S at t , then x is not in the justifier-ancestry of y for S at t (Klein 1999: 298; Klein 2005a: 136).

These principles correspond to the three structural models of Agrippa's Trilemma. Either accepting or rejecting all three principles has the consequence of skepticism. The various possibilities for a structural theory of knowledge lie between the two extremes. There are a few things to be said about the principles.

First, the principles do not jointly exhaust the necessary conditions for an adequate theory of justification, whether foundationalist, coherentist, or infinitist. As Klein notes, at least non-

defeater and non-overrider principles would need to be introduced (Klein 2005a: 139).¹ Non-defeater and non-overrider principles are not necessary for the entailment of any of the structural theories, but any theory without the principles would not be satisfactory. Thus when we say that PAC and PAR jointly entail foundationalism, or that PAA and PAR jointly entail coherentism, or that PAA and PAC jointly entail infinitism, we do not pretend that these substantive principles are sufficient for an adequate theory. We ask the reader to generously interpret these statements elliptically; if the reader so desires, the reader may insert a clause excluding defeaters and overriders where appropriate. We suppress all such clauses throughout.

Second, as we have noted above, all structural theories of knowledge or justification are consistent with certain varieties of skepticism. Insofar as skepticism is characterized by its commitment to theses of ignorance, ignorance is diverse in its type and degree. On the one hand, skeptics of a certain sort could hold that we, in fact, possess no justified beliefs. This might be because some global agnology, a thesis to the effect that it is not possible to acquire any justified beliefs, is true. Sextus Empiricus (2000) and Peter Klein (2003) accuse Academics skeptics of dogmatically accepting such an agnology. Ironically, David Hume (2007) and A.C. Grayling (2003) accuse the Pyrrhonians of the same dogmatism. Regardless, it is important to note that such a thesis is blind to the structural question: what are the features of justified beliefs if anyone were to possess any? Skepticism of this first sort is consistent with actuality of a correct structural theory.

On the other hand, skeptics of another sort could hold that it is impossible to develop an adequate theory about the features of justified beliefs. This is the kind of skepticism featured by

¹ Roughly, y is a defeater for S 's the justification of x at t , "if and only if, when y is conjoined with whatever justified x for S , the resulting conjunction no longer justifies x for S " (Klein 1981: 24). Overriders are basically a complicated species of defeaters. For more detail, see Klein (1981).

the Pyrrhonian problematic. Barry Stroud (1989; 2000) interprets this Pyrrhonian argument as a challenge to the possibility of providing a general explanation of the structure of justification. Strictly speaking, such a thesis is blind to the questions of actuality: do we, in fact, have any justified beliefs? Is possible to acquire any justified beliefs? PAR, PAA, and PAC jointly entail that there can be no satisfactory structural theory of knowledge. Skepticism of this second sort obtains.

It should not come to the surprise that Agrippa's Trilemma has not secured the skeptical conclusion in the minds of many philosophers. Nonetheless it has been the source of long-standing debate about the correct structural theory of epistemic justification. The dominant structural theory has been and continues to be foundationalism. Foundationalism rejects PAA; PAC and PAR jointly entail the structural theory of foundationalism. Another view, coherentism, attempts to offer a structural theory by rejecting PAC; PAA and PAR jointly entail the structural theory of coherentism. The classical debate about the correct structural theory has taken place between the foundationalists and coherentists to the exclusion of the infinitist option. This is because the structural theory of infinitism, the view that rejects PAR and is jointly entailed by PAA and PAC, has received little scholarly attention until very recently.

1.3 Propositional and Doxastic Justification

Before proceeding to the explication of foundationalism, coherentism, or infinitism, we must prepare the underpinning of the analysis. The underpinning consists in the definition of the relationship between two types of epistemic justification, propositional and doxastic.

Propositional justification is potential justification of sorts for an epistemic agent. As John Turri expresses, propositional justification "attaches to propositions relative to individuals"

or, as Klein expresses, “such justification is an epistemic property of propositions rather than a property of belief states” because a belief may be “justified for you even though you don’t actually believe it, or believe it for the wrong reasons, or believe it for the right reasons but in the wrong way” (Klein 2007: 8; Turri 2009: 209). Propositions for which S is propositionally justified in accepting are those which are merely “justifiable” or if S is in “a position to justifiedly believe” (Turri 2010a: 312). We might say that S is entitled to believe that p if p is proposition justified for S.

Doxastic justification is actual justification of sorts for an epistemic agent, attaching “to concrete belief states (and to doxastic states more generally)” or, put another way, “belief states are the bearers of doxastic justification” (Klein 2007: 8; Turri 2009: 209). If the belief that p is doxastically justified, it is not merely justifiable but “justified”, where p is something for which S is “justifiably believing” (Turri 2010a: 312). Without pausing to survey², the view that doxastic justification is little more than propositional justification plus the basing principle is pervasive in the literature. The basing principle is a condition that specifies that if the belief that p is propositionally justified for S because some reason r and S believes that p on the basis of r, then the belief that p is doxastically justified for S (Turri 2010a: 314).

Turri (2010a) has produced compelling counterexamples to the basing principle. Roughly and very briefly, the counterexamples proceed as follows. Suppose that reasons $r_1, r_2, r_3, \dots, r_n$, propositionally justify belief that p for S and that S believes that p on the basis of $r_1, r_2, r_3, \dots, r_n$. What is left to be explained the manner in which S accepts $r_1, r_2, r_3, \dots, r_n$ as reasons for p. Presumably the only epistemically admissible ground for accepting $r_1, r_2, r_3, \dots, r_n$ as reasons for p is that they make p sufficiently likely to be true. Yet it is perfectly possible that S accepts those

² See Turri (2010a).

reasons on epistemically inadmissible grounds. For instance, S might accept $r_1, r_2, r_3, \dots, r_n$ as reasons for p on a whim, or by luck, or because of the advice of an astrologist, or because of the reading of tea leaves, or because a hallucinated interlocutor coerced S to assent, etc. Since S can satisfy the conditions of the basing principle and yet fail to achieve doxastic justification, the principle is false.

Turri argues that we need a principle wherein “the subject’s intellectual abilities *explain why* she is in a position to justifiedly believe or know p ” (Turri 2010a: 320). Put another way, if S has properly produced the relevant reasons for the belief that p such that S is doxastically justified in the belief that p , then S has manifested the relevant cognitive dispositions in the production of those reasons, whatever the relevant cognitive dispositions may be (Turri 2009: 217). He therefore endorses the following principle, especially as an explanation of the relationship between propositional and doxastic justification:

(PJ) Necessarily, for all S, p , and t , if p is propositionally justified for S at t , then p is propositionally justified for S at t **because** S currently possesses at least one means of believing p such that, were S to believe p in one of those ways, S ’s belief would thereby be doxastically justified (bold mine; Turri 2010a: 320).

In light of Turri’s remarks, we formulate propositional and doxastic justification as follows:

A proposition p is *propositionally justified* for S at time t if and only if there is at least one justifier, j_1 , of kind k such that j_1 is a good and undefeated reason to believe p .

A proposition p is *doxastically justified* for S at time t if and only if p is propositionally justified for S at t and S 's production of justifiers, $j_1, j_2, j_3, \dots, j_n$, for p actually manifests S 's relevant cognitive dispositions.³

There are two important elements in the formula: justifiers of kind k and the relevant cognitive dispositions. Let us begin with a word about the latter.

It is in the interest of every theorist for an account about what exactly constitutes those epistemically relevant cognitive dispositions, whether they are perceptual faculties, the deliverances of memory, the reliable testimony of others, causal efficacy, the production of conscious reasons, etc. None of these dispositions excludes, at least from the outset, any structural theory. Arguably, since no well-developed theory exists about those relevant cognitive dispositions, the formulation of propositional and doxastic justification will have to be sufficiently vague to accommodate the development of an adequate theory. If a theorist so desires, they may insert whatever dispositions they find preferable (within reason, of course).

Similar remarks apply to justifiers of kind k . The precise nature of justifiers of kind k is a matter of philosophical dispute. Neither the foundationalist, nor the coherentist, nor the infinitist should reject either formulation because theorists of any stripe are free to specify what qualifies as kind k for a justifier. Foundationalists might say that a justifier of kind k is either a belief that possesses or stands in the appropriate justificatory relation to foundational property Φ (the property constitutive of basic beliefs). Coherentists might say that a justifier of kind k is a belief

³ The production of justifiers does not require that S have an epistemological theory nor does it preclude the Wittgensteinian analysis of knowledge. If one considers, for example, the production of justifiers for the belief <I have a hand>, the relevant cognitive disposition might just be that S sees that S has a hand. Nothing about the definition requires that S be able to say more than that. The question about which of the cognitive dispositions are epistemically relevant and why is up to the theorist (within reason, of course). We have no assumptions about the dispositions in this essay.

that coheres with S's other beliefs better than its competitors. Infinitists might say that a justifier of kind *k* is a good and undefeated reason that is a member of an infinite, nonrepeating series. We examine all these proposals in detail below.

2. Foundationalism

Foundationalism is, broadly, defined by three theses. First, foundationalism is a terminal or, as Carl Ginet puts it, a "finitist" theory of justification (Ginet 2005: 141). It describes the ramifying chain of justification as one that finds its terminus at some belief or class of beliefs. This is a consequence of foundationalism's endorsement of PAR.

Second, foundationalism distinguishes between two types of doxastically justified beliefs: justified beliefs are members of either the "superstructure" or the "foundations" (Alston 1993: 144). Member beliefs of the superstructure are nonbasic and member beliefs of the foundations are basic. This is a consequence of foundationalism's rejection of PAA.

Nonbasic beliefs derive their justification by standing in the right kind of justificatory relation – inferentially – to epistemically prior justified beliefs, whether these prior beliefs are nonbasic or basic. However, no nonbasic belief is autonomously justified. All *prima facie* warrant enjoyed by nonbasic beliefs can be traced back to foundational beliefs.

The defining quality of a basic belief is the privilege basic beliefs enjoy. The virtue of such epistemic privilege allows them, at least in principle, to transmit justification to nonbasic beliefs. Unlike nonbasic beliefs, "the *source* of the justification of foundationally justified beliefs is not other beliefs" (Audi 1993: 8). The source of a belief's *prima facie* justification is criterial for its taxonomical identification as either basic or nonbasic.

Third, foundationalism is a linear theory of justification. This is a consequence of foundationalism's endorsement of PAC. Linearity is a poorly-explicated concept, but I will utilize two related traits: the direction of justification and the privilege of certain beliefs with respect to other beliefs. In reality these traits are two faces of the same coin. Foundationalism depicts the direction of justification in a justificatory chain one-way, usually from the bottom up. We saw this, above, with foundationalist's second thesis. Those "bottom beliefs" are epistemically prior; they serve as premises for the conclusion of later beliefs and are the derivative source of justificatory merit possessed by these conclusions. Foundationalism affords a strong privilege to certain classes of belief – basic beliefs – in that basic beliefs only serve as premises.

2.1 Basic Beliefs

There are, broadly, two formulae by which one may typify basic beliefs. Call these two models F_1 and F_2 . F_1 and F_2 are disparate formulae of basic beliefs, but the trait they share is Φ . The property Φ is denotative of basic beliefs since it is the source of not only the autonomous warrant enjoyed by basic beliefs but the justificatory status of the totality of the foundationalist's beliefs, basic and nonbasic alike. A belief is autonomously warranted just in case the belief possesses at least *prima facie* epistemic justification and the source of the justification is not other beliefs. This justification is, in some sense, an intrinsic feature of the basic belief. It is noteworthy that the mere possession of Φ is sufficient for a basic belief to be propositionally justified.

The formulae of F_1 and F_2 foundationalisms are therefore as follows:

F₁ Basic beliefs are autonomously warranted in virtue of some feature Φ . Beliefs possessing property Φ are properly basic.

F₂ Basic beliefs are *not* autonomously warranted and possess some feature Φ . Beliefs possessing property Φ are properly basic but are neither epistemically justified nor unjustified.

Consider a parallel analysis. For what Sosa calls “formal foundationalism”, the epistemic justification possessed by a given belief supervenes on the relevant property possessed by that belief (Sosa 1980: 229 – 231). Thus when a basic belief is justified, its possession of the property of being propositionally justified, supervenes on property Φ . When a nonbasic belief is justified, its property of being propositionally justified supervenes on two properties: first, the property Φ possessed by basic beliefs and, second, the property of standing in the right kind of justificatory relation to basic beliefs.

There are many candidates for the defining property Φ of a properly basic belief: rationalists like Descartes (1998) and BonJour (1998, 2003) roughly hold that innate or rationally intuited ideas are properly basic; empiricists like Hume (2007, 2008) and Russell (1948) roughly hold that experiential beliefs are properly basic; a tracking theorist like Nozick (1981) roughly holds that sensitive beliefs are properly basic; virtue epistemologists like Greco (2000, 2010) and Sosa (2003, 2007, 2009) roughly hold that apt or responsible beliefs are properly basic; reliabilists like Goldman (1986, 1999) and Plantinga (1993) roughly hold that beliefs reliably formed are properly basic; a Wittgensteinian roughly holds that a hinge proposition is properly basic (Pritchard 2004; Strawson 1985; Wittgenstein 1969). Any number of different formulations

of Φ are, at least one the face of it, up for grabs. We primarily speak of the abstract property Φ because it generalizes over all foundationalist theories.

2.2 Varieties of Foundationalism

Positism (not to be confused with positivism), as Van Cleve calls it, adopts F_2 . Roughly, positivist foundationalism holds that some beliefs, though they are not themselves (propositionally or doxastically) justified, can serve to justify other beliefs (Van Cleve 2005: 168). The details of the interpretation diverge, but it does not seem unfair to attribute the makings of such a view to Wittgenstein in his *On Certainty* (McGinn 2008; Wittgenstein 1969; Wright 2004).

With very few exceptions, F_1 has been the principal model for basic beliefs. F_1 foundationalism goes as least as far back as Aristotle. It has been so commonly proposed since Aristotle that foundationalist theses can be subdivided among three classes. Lawrence BonJour has outlined the characteristic features of these classes, calling them strong, moderate, and weak foundationalisms:

According to moderate foundationalism, the noninferential warrant possessed by basic beliefs is sufficient by itself to satisfy the adequate-justification condition for knowledge. Thus on this view a basic belief, if true, is automatically an instance of knowledge (assuming that Gettier problems do not arise) and hence fully acceptable as a premise for the justification of further... beliefs. By virtue of their complete justificatory independence from other... beliefs, such basic beliefs are eminently suitable for a foundational role (BonJour 1985: 26).

Notice that moderate foundationalism is a fallibilist model. Infallibilism in a nutshell is the thesis that a belief can be epistemically justified but false. Put another way, justification does not purchase the guarantee of truth for justified beliefs; they are only likely to be true. Infallibilism is the denial of fallibilism. Infallibilism holds that epistemic justification purchases a guarantee of truth for those beliefs that are epistemically justified. Justified beliefs are not merely likely to be true, they must be true.

Strong foundationalism is an infallibilist model. It adopts the core tenets of moderate foundationalism, taking exception only with the traits of basic beliefs. The basic beliefs of strong foundationalism are “*infallible, certain, indubitable, or incorrigible*” (BonJour 1985: 26).

Weak foundationalism, being weaker than moderate foundationalism, is a fallibilist model but does not characterize its basic beliefs as possessing sufficient autonomous warrant to qualify them either as knowledge or “as acceptable justifying premises for further beliefs. Such beliefs are only ‘initially credible,’ rather than fully justified” (BonJour 1985: 28).

If basic beliefs are insufficient to meet the adequate-justification condition for knowledge, then how can the weak foundationalist account for instances of knowledge (assuming that we have any)? The problem seems troublesome when it is remembered that basic beliefs are the epistemically most prior in a justification chain. The answer is an appeal to coherence (Poston 2010). “The weak foundationalist solution to this problem is to attempt to augment the justification of both basic and nonbasic beliefs by appealing to the concept of coherence” (BonJour 1985: 28).

3. Coherentism

Coherentism arose to a short-lived supremacy among British idealists in the beginning of the 20th century. Its early proponents were Harold H. Joachim (1906), F.H. Bradley (1914), and Bernard Bosanquet (1911; 1920). Brand Blanshard (1939; 1962) developed his distinctive variety of coherentism after spending time in Oxford, where he met F.H. Bradley. Despite all this, coherentism was overshadowed by the rise of the Vienna Circle and its philosophy of analysis. Since then it been tenuously held by only a handful of philosophers. Most famously this includes contemporary thinkers like Lawrence BonJour (1985) and Keith Lehrer (1974; 2000), though BonJour has since formally disavowed coherentism (BonJour 1999). Susan Haack (2009) and Catherine Elgin (1996; 2005) also offer important contributions to the theory of coherence, though their status as coherentists is less than incontrovertible. Haack (1997) has defended her position as essentially foundationalist despite argument to the contrary from BonJour (1997). Elgin (2005), who identifies as a coherentist, has received criticism from Van Cleve (2005) to the effect that her theory is actually a form of weak foundationalism.

Coherentism was historically a reaction to foundationalism and the correspondence theory of truth, though the coherentists were sometimes confused about the latter score. We speak only of coherentist theories of justification. Because coherentism was reactionary, it is easy to elucidate it in terms its qualms with foundationalism.

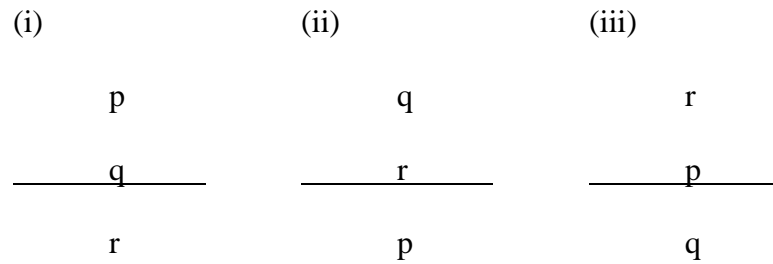
Coherentism is, broadly, defined by three theses. Like foundationalism before it, coherentism is, first, a terminal theory of justification. Foundationalism and coherentism agree that the regress of justifying reasons for the belief that *p* comes to an end. This is a consequence, as we have seen, of foundationalism's and coherentism's endorsement of PAR.

Second, coherentism rejects the distinction between basic and nonbasic beliefs. This is a consequence of coherentism's endorsement of PAA. Whereas foundationalism conceives of the ultimate origin of doxastic justification to be some feature Φ of a basic belief rather than the belief itself, one way of thinking about coherentism is that coherentism emphasizes the primacy of other beliefs in the doxastic justification of any given belief. In a sense, all beliefs, justified or not, are nonbasic in the sense that they lack property Φ of basic beliefs – no belief for the coherentist is autonomously warranted. In another sense, all justified beliefs are basic in sense of a specific property that all justified beliefs possess; namely, coherence. Coherence can be distributed among two models of coherence-bearing.

The first model of coherence-bearing, the warrant-transfer model, posits that members of a coherent set have the primary function of communicating propositional justification. This means that member beliefs are the primary bearers of the coherence relation and would therefore qualify as being propositionally justified.

The second model of coherence-bearing, the warrant-emergence model, makes use of two separate properties when talking about coherence. There is the property of membership in a coherent set possessed by individual beliefs and there is the property of coherence possessed by a set. Coherence is not a reducible property of any particular belief, but instead a property of a *set* of beliefs whereby the set is the primary bearer of justification (Klein 2007a: 8). For a belief to be propositionally justified is for it to possess the relational property of coherence – belief *p* is coherent with beliefs *q*, *r*, etc. – and coherence is intelligible only in lieu of other beliefs, just as the concept of validity applies only to arguments or the designation of marriage applies only to those individuals with at least one spouse.

Third, coherentists tend to reject the linear model of epistemic justification in favor of a nonlinear model. This is a consequence of coherentism's rejection of PAC. As we saw, above, linearity is a function of the direction of justification and the privilege of certain beliefs vis-à-vis other beliefs. Consider three argument arrangements for the set of beliefs, {p, q, r}, and assume the arguments are valid:



On a linear model, the belief r in (i) would be derivatively justified via its relationship to p and q, as conclusions are analogously derived from premises such that p and q are epistemically prior to r; p and q are privileged with respect to r. If, say, p is basic, then it is always privileged in the sense that its source of justification is never derived from its position as a conclusion in any argument. Therefore foundationalist models cannot endorse (i), (ii), and (iii) provided that p, q, or r is basic. If, as in our example, a foundationalist endorses (i), the foundationalist has excluded their ability to endorse (ii); whether the foundationalist is permitted to endorse (iii) depends on additional factors. Weak foundationalists might endorse both (i) and (iii), for example. By contrast, a nonlinear model of justification is free to endorse (i), (ii), and (iii). There are two possible ways to construe the coherentist's endorsement of (i), (ii), and (iii). They are, as we have already seen, the warrant-transference model and the warrant-emergence model (BonJour 1985; Klein 2005a: 135; Klein 2007a: 8; Sosa 1980).

The warrant-transfer model is roughly a linear model. The property of being propositionally justified is transmitted via one belief to another whereby all recipients of justification are circularly arranged. Thus propositional justification, as it is for foundationalism, is transmitted when beliefs stand in the right kind of relation – an inferential relation – to one another. The source of the property of being propositionally justified is a fair question, and it seems rather doubtful that the circular arrangement of beliefs can spontaneously generate warrant. Klein adopts the following analogy for the warrant-transfer model to express the problem:

...Think of basketball players standing in a circle passing the ball round and round.

It is important to note that this view is parasitic on the foundationalist account of propositional justification. For once again, somehow justification arises in the circle of propositions and is transferred via inference from one proposition to another. Thus, it is not surprising that Aristotle employed the foundationalist concept of a fixed epistemic priority among propositions in developing his criticism of this transference form of coherentism mentioned earlier. To exploit the analogy a bit: Transferring the basketball seems easy to understand, but how the basketball got there in the first place is mysterious (Klein 2007a: 8).

A related stumbling block for the warrant-transfer model is that it seems to endorse fallacious reasoning. When a given belief, say *r*, is called into question, *S* will offer some reasons that *p* and that *q*; as in (i). But, on the warrant-transfer model, *S* ultimately endorses that *p* and that *q* on the basis of that *r*; as in (ii) and (iii). In short, that *r* provides its own justificatory basis by virtue of

justificatory transitivity on the warrant-transfer view.⁴ If that *r* is called in question such that some other reasons, that *p* and that *q*, is supplied to support that *r*, *S* would have no rational footing for the belief that *r*. It would simply be question-begging to assert that *r*, the thing in question, as grounds for that *p* and that *q* (Klein 2005a: 134). Perhaps even worse for the coherentist, if *r* provides its own justificatory basis on the warrant-transfer view, then *r* – to the extent that it possesses any warrant at all – is *autonomously* warranted. In other words, it would seem that *r* would be more like a foundational belief than a candidate for coherentism.

The second form is the warrant-emergence model. According to the warrant-emergence model, the property of a belief's being propositionally justified supervenes on the property of membership in a coherent set. Warrant-emergence models do not “think of propositional justification as a property attached to a proposition that can be transferred to another one. Rather, it views justification as an emergent property such that when sets of propositions have a certain arrangement – a coherent structure – all members of the set of propositions are justified” (Klein 2007a: 8). The model posits that a member belief, *p*, is justified in virtue of the fact that it both serves as a reason for other beliefs, *q* and *r*, and that other beliefs, perhaps even *q* and *r*, serve as reasons for *p*. There is no privileged belief in the sense that any belief may serve as premises in some arguments and be derived as a conclusion from other, though distinct, arguments. If *p* and *q* are members of a coherent set, *p* will sometimes be a reason for *q*; other times, *q* the reason for *p*. It depends on what is being granted in the course of the argument. This is what we understand to be the essence of the Neurath metaphor.⁵ What matters is that the sense in which these beliefs may be either premises or conclusions is that they do so at *different* reasoning sessions. If *p* is

⁴ If *r* provides its own justificatory basis on the warrant-transfer view, then *r* – to the extent that it possesses any warrant at all – is *autonomously* warranted. It would seem that *r* would be more like a foundational belief than a candidate for coherentism. For more on this point, see Audi (1993).

⁵ For discussion of the Neurath metaphor, see Neurath (1959), Sosa (1980), Quine (1980), and Devitt (2005).

challenged in an argument and q is offered in support of that p, then p cannot be available as a reason for q. “That would be to fall into circular, question-begging reasoning” (Klein 2005a: 136).

The three theses of coherentism intertwine when the regress terminates at a sufficiently coherent set of beliefs wherein the member beliefs are justified as a result either because of their circular arrangement or because of their membership in the coherent set. However, it is unlikely that any person has endorsed warrant-transference coherentism. BonJour and Lehrer, among others, have endorsed warrant-emergence coherentisms.

3.1 Coherence Relation

Lawrence BonJour has offered an excellent intuitive description of coherence, saying that “coherence is a matter of how well a body of beliefs ‘hangs together’: how well its component beliefs fit together, agree or dovetail with each other, so as to produce an organized, tightly structured system of beliefs, rather than either a helter-skelter collection or a set of conflicting subsystems” (BonJour 1985: 93). However appealing the intuitive description may be, one of the traditional bugbears for coherentists is the lack of precision or consensus about what exactly constitutes the coherence relation. What does it mean for beliefs to “hang together”? What are the necessary and sufficient conditions that a collection of beliefs needs to satisfy to qualify as a minimally coherent set?

Pollock and Cruz, for example, opt to divide theories of coherence among positive and negative accounts. Positive coherence theories require positive support in the form of reasons for the acquisition of justified beliefs and negative coherence theories construes reasons negatively, affording grounds for the rejection of beliefs, but do not require justification for acquired beliefs

because all beliefs are *prima facie* justified; beliefs are epistemically innocent until defeated (Pollock and Cruz 1999: 70). Keith Lehrer (*op. cit.*) is exemplary of positive coherence and Gilbert Harman (1984) is exemplary of negative coherence.

Peter Murphy (2006) utilizes an interesting taxonomy for proposed elements of the coherence relation. The classification is distributed among propositional and psychological relations, where propositional relations include deductive, probabilistic, and explanatory subcategories. Though my organizational structure has been inspired by Murphy, we consider only three candidate conditions for the coherence relation. I have opted to trade an economy of breadth for one of rigor. In the following sections, we examine entailment, consistency, and explanatory requirements for coherence.

3.2 Coherence and Entailment

Early coherentists conceived of an important element of coherence as one involving implication or, what amounts to the same, necessary connection. Contemporary coherentists have construed early formulations of the coherence relation as being constituted by entailment and criticized it on that basis (BonJour 1985: 96 – 98, 214 – 217; Lehrer 1974: 157 – 159; Lehrer 2000: 100 – 101). Lehrer offers the following formulation of the entailment condition for coherence:

Thus, a belief that *p* coheres with other beliefs of a system *C* if and only if *p* either necessarily implies or is necessarily implied by every other belief in *C* (Lehrer 1974: 157 – 158; Lehrer 2000: 100).

Compare Blanshard:

Fully coherent knowledge would be knowledge in which every judgment entailed, and was entailed by, the rest of the system (Blanshard 1939: 264).

Blanshard's formulation is at once stronger and weaker than Lehrer's. It is stronger in that it requires a proposition to both entail and be entailed by all other propositions in a fully coherent set whereas Lehrer's formulation requires the satisfaction of only one of these conjuncts. Let us consider two objections to the strong formulation of the entailment requirement of coherence.

The first objection comes from Lehrer (1974: 165; 2000: 100). It shows that we can construct two fully coherent, though mutually exclusive, systems that are formally identical. For any set, C , of logically consistent propositions, if some members of C are contingent and every member of C necessarily implies or is implied by every other member of C , we can construct another set, C^* , which is made up of all the members of C except that those contingent member propositions are negated. Given their mutual exclusivity, we must choose between C and C^* , and coherence is supposed to furnish the means to do so but fails. On the entailment conception of coherence, the two sets are equally satisfactorily coherent. Ergo, entailment is not a sufficient condition for coherence.

The second of Lehrer's criticisms attempts to demonstrate that entailment is not a necessary condition for coherence. The principle of the argument appears to be correct but the example Lehrer adduces is problematic. We turn to Murphy for a support of Lehrer's contention. Consider the following four beliefs:

the belief that Moe is wincing, the belief that Moe is squealing, the belief that Moe is yelling “that hurts”, and the belief that Moe is in pain. None of these beliefs logically implies any of the others. Nor does the conjunction of any three of them imply the fourth. Despite the lack of entailments, though, the beliefs together seem to constitute a system of beliefs that is intuitively quite coherent. So coherence can be earned by relations weaker than entailment (Murphy 2006).

We accept these two criticisms as decisive against the strong formulation of the entailment requirement of coherence.

Let us take a moment to examine the weak formulation, which seems to be what Blanshard has in mind. The weak formulation concedes that entailment is not a necessary condition for coherence. The saving qualification for Blanshard is that it is a *fully* or *maximally* coherent set that displays the conjunctive requirement of entailing and being entailed by every other member belief. Blanshard says that we probably will “never in fact find a system where there is so much interdependence” (Blanshard 1939: 265). The maximally coherent set, as we call it, is an ideal (Blanshard 1939: 264, 265, 266). Despite our imperfect approximations of the maximally coherent set, knowledge is still possible and it is justified in lieu of the coherence among beliefs (Blanshard 1930: 265). This is because coherence is comes in degrees. The ideal set has other qualities: member propositions are consistent, no member proposition is arbitrary, no member proposition is independent or atomic, and every proposition entails and is entailed the other member propositions jointly and singly (Blanshard 1939: 264, 265 – 266).

Blanshard offers an analogy of types of sets which display different degrees of coherence and, it would seem, degrees of epistemic justification. The set that is not coherent, presumably

one in which member beliefs of the set are not epistemically justified, “would be a junk-heap, where we could know every item but one and still be without any clue as to what the remaining item was. Above this would come a stone-pile,” which we take to be the minimally coherent set satisfactory for justification, “since here you could at least infer that what you would find next would be a stone” (Blanshard 1939: 265). If indeed Blanshard is suggesting that the stone pile is analogous to a minimally coherent set, then, strictly speaking, he is not appealing to deductive inference to justify the belief that the next would be a stone. Rather, the mode of inference is induction:

All items $i_1, i_2, i_3, \dots, i_n$ from the heap have been stones.

Item i_{n+1} is from the heap.

Item i_{n+1} is a stone.

If Blanshard sanctions inductive inference as satisfactory for minimal coherence, then it would seem that there is agreement from early coherentists that entailment is not a necessary condition for the coherence relation. Another way to think of the analogy via its extension is to consider explanation for a phenomenon or set of phenomena. If, for instance, one knows something about members of the heap, namely that they are stones, and finds a sample of similar enough stones nearby, one might infer that the stones came from the heap. The inference would be legitimated by appeal to Peircean abduction (Burch 2010):

All items $i_1, i_2, i_3, \dots, i_n$ from the heap have been stones.

Item i_{n+1} is a stone.

Item i_{n+1} is from the heap.

Regardless of whether agreement exists between early and contemporary coherentists over the role of entailment in the coherence relation, the foregoing arguments demonstrate the difficulty for entailment requirements of the coherence relation.

3.3 Coherence and Consistency

Blanshard posits that consistency is a desirable quality of coherence. We take him to mean logical consistency. Some contemporary coherentists posit that logical consistency is a necessary condition for knowledge. For example, BonJour says that logical “consistency is one requirement for coherence, [and] that inconsistency is obviously a very serious sort of incoherence” (BonJour 1985: 95). However, BonJour notes that logical consistency is inadequate and adds a probabilistic consistency requirement:

Suppose that my system of beliefs contains both the belief P and also the belief that it is extremely improbable that P . Clearly such a system of beliefs may perfectly well be logically consistent. But it is equally clear from an intuitive standpoint that a system which contains two such beliefs is significantly less coherent than it would be without them and thus that probabilistic consistency is a second factor determining coherence (BonJour 1985: 95).

An important distinguishing factor of probabilistic consistency is that it depends on how many probabilistic conflicts exist within the belief system and that probabilistic consistency is a matter of degree (BonJour 1985: 95). Thus BonJour expresses two criteria necessary for the satisfaction of the coherence relation:

- (1) A system of beliefs is coherent only if it is logically consistent.
- (2) A system of beliefs is coherent in proportion to its degree of probabilistic consistency.

Lehrer too takes issue with a logical consistency requirement for the coherence relation, saying that consistency, “even if necessary for coherence, as it is here assumed to be, is not sufficient for coherence” (Lehrer 1974: 163; Lehrer 2000: 104). Lehrer sees consistency as an issue wrapped up in the larger project of explanatory coherence:

We must require that a belief cohering with a system either explain or be explained in relation to the system better than anything that contradicts it. Contradiction must be made relative to the system. Two mutually contradictory statements may be such that a system of beliefs entails that they cannot both be true. We shall speak of such beliefs contradicting each other and thus employ a relativized concept of contradiction. [...] A belief coheres with a system of beliefs if and only if the belief is consistent with the system and either explains something in relation to the system not explained better by any belief that contradicts it, or the belief is better explained by something in relation to the system, and nothing that contradicts it is explained better (Lehrer 2000: 105).

Setting aside explanatory coherence, Lehrer's use of the word "contradiction" is not equivalent to its formal meaning. For Lehrer's purposes, a candidate belief q "contradicts" candidate p if q is either a contrary or contradictory of p . Contraries and contradictories of p compete with p for a place in S 's acceptance system because if q is admitted into S 's acceptance system, whether q is either a contrary or a contradictory, entails that p is inconsistent with S 's acceptance system. Whether p or its competitor q is accepted depends on their complementarity with S 's acceptance system. Complementarity, for explanatory coherence, is assessed in terms of whether and how well a candidate acceptance explains or is explained by other members of S 's acceptance system.

It is not difficult to see the importance of consistency. Without consistency, it is difficult to see how p and q compete for admission into S 's acceptance system. For any acceptance p , the acceptance that p must be consistent with the rest of the system. Is this type of consistency tantamount to logical consistency? It is difficult to say. Perhaps Lehrer has in mind a type of inconsistency that a responsible epistemic agent must avoid that is weaker than its logical formulation. If so, we should naturally ask: what does this type of egregious inconsistency look like and how is it different than an acceptable inconsistency?

Peter Klein (1985) distinguishes between what he calls strong inconsistency and weak inconsistency. A set of propositions is strongly inconsistent when two member beliefs, p and q , are inconsistent; or, alternatively, when the conjunction of two member beliefs, p and q , is necessarily false. A set of propositions is weakly inconsistent when, strictly speaking, it is inconsistent but not strongly inconsistent. Klein appeals to the Lottery Paradox as an example of a weakly inconsistent set (Klein 1985: 108). Another example of a weakly inconsistent set, γ , is the following: $\{p \supset q, p, \sim q\}$. The set γ is inconsistent, but the conjunction of any two members of γ is not necessarily false. Obviously the truth of any two member propositions of γ would

entail the falsity of the remaining member proposition. Perhaps Lehrer wishes to say that no coherent set can be strongly inconsistent. If he wished also to reject the permissibility of weak inconsistency, he would endorse logical consistency as a necessary condition for justified beliefs.

It is clear that logical consistency is not a sufficient condition for coherence. The example from Murphy, above, is telling against the sufficiency of consistency. However, this does not answer the question whether logical consistency is a necessary condition for coherence and, by extension, justification and knowledge. The answer is highly contentious. Foley (1978), Klein (1985), and Kornblith (1989) have argued that logical consistency is improbable or impossible to attain, though by different means and for different dialectical purposes; Wunderlich (2010) notes that Goldman (1999) and Cherniak (1986) also argue against the attainability of consistency. Kornblith and Wunderlich quote a notable passage from Cherniak:

Given the difficulties in individuating beliefs, it is not easy to estimate the number of logically independent atom propositions in a typical human belief system, but 138 seems much too low – too ‘small minded’. Yet suppose each line of the truth table for the conjunction of all these beliefs can be checked in the time a light ray takes to traverse the diameter of a proton, an appropriate cycle of time for an ideal computer. At this maximum speed, a consistency test of this very modest belief system would require more time than the estimated twenty billion years from the dawn of the universe to the present (Cherniak 1986: 211).

The contention, in view of its relation to coherentist theories of justification, is that “it is impossible for human beings, or any information process device, to accept beliefs in virtue of

their coherence with others, so long as the field of beliefs over which coherence must operate is tolerably large” (Kornblith 1989: 211). We may express the argument thus:

P₁ Consistency is a necessary condition for coherence.

P₂ Consistency is unattainable.

C Coherence is unattainable.

There are four possible assessments of the argument. The first is to agree with Kornblith and reject coherentism as a plausible structural theory. The second is to reject the first premise by eliminating logical consistency as a necessary condition for coherence. Third, coherentists could reject the second premise and attempt to argue that consistency is attainable for typical epistemic agents. Fourth, coherentists could stick to their guns and bite the skeptical bullet. By insisting that they have the correct structural theory account of justification, coherentists could take Kornblith’s argument to be an argument for skepticism: if coherence is necessary for justification and we cannot attain coherence, then we could just as easily give up the unstated premise that we possess justified beliefs (and, by implication, that it is possible to obtain justified beliefs).

Wunderlich (2010) adopts the third assessment. He proposes a three-step algorithm for checking consistency in our set of beliefs:

First, one identifies propositions that must be understood as logically complex. Second, one divides those into groups of logically complex propositions that contain overlapping sets of atomic propositions. It is only within such a group that one could find a logical

inconsistency. Finally, one checks each of the groups for consistency (Wunderlich 2010: 4).

One must formalize and exhibit the logical complexity of the various sentences because formalizing them sententially, e.g. the set {A, B, C, ...}, precludes the possibility of inconsistency. Inconsistency is possible only with sufficient logical complexity. However, one need not translate all possible complexity of implicit in a given sentence. Instead, one need only translate “as much of the logical complexity of the first sentence as is necessary to exhibit relationships with other sentences” (Wunderlich 2010: 4).

After one has formalized the propositions under review, they are arranged according to relevance. Those propositions which are overlapping are placed within their own groups. Intuitively, logically related propositions about the history of the Roman Empire are presumably grouped into a set distinct from those logically related beliefs about ice cream. Within these distinct groups, one performs consistency checks.

Kornblith uses the number of sentences in a short novel as a proxy for a belief set. Wunderlich references Jane Austin’s *Pride and Prejudice* as an illustrative example. He puts his method to the test by performing a consistency check on the opening lines of the novel:

It is easy to check that nowhere else in the novel is the truth discussed (that a man in possession of good fortune must be in want of a wife). However the first and second sentences are formalized, one need not worry that they will conflict with the rest of the novel...

One must then check that the first and second are compatible with each other. Is the universal acknowledgement of a truth logically consistent with that truth being particularly fixed in the minds of a group of people? Yes. There are therefore no worries about the logical consistency of *Pride and Prejudice* regarding the first two sentences (Wunderlich 2010: 5).

“The lesson,” Wunderlich writes, “is that sensible consistency checks proceed by dividing up the task into manageable subtasks, and that the division itself is not too difficult” (Wunderlich 2010: 5). Though a belief corpus could be very large indeed, all that matters is that “sizes of the subsets of atomic propositions that are linked by the subject’s beliefs. Kornblith has given us no reason to think that these subsets are large” (Wunderlich 2010: 5).

If “Kornblith has done nothing to show that any difficulties one might have in discovering such inconsistencies have anything to do with the cosmically unmanageable size of a truth table,” then we seem to have an attractive, elegant method to check for consistency (Wunderlich 2010: 6). Perhaps consistency can be retained as a necessary condition for coherence after all.

There are two potential worries that coherentists may not be able to adopt Wunderlich’s algorithm. The following considerations may be framed in the form of a dilemma: either it is possible for epistemic agent S to check for consistency but not satisfy other coherence conditions or it is possible for S satisfy other coherence conditions but not possible for S to check for consistency. If consistency is posited as a necessary condition for coherence, then the resulting conclusion would be that coherence is unattainable. To be clear, I am not arguing that

Wunderlich's algorithm is faulty. It strikes me as plausible that a foundationalist could adopt it. Rather I am worried that the algorithm presents an obstacle for the coherentist.

A subset is, as we have seen, populated only by those propositions which are logically related, e.g. by those beliefs which are not logically relevant to other beliefs. If they were, the subset would be populated by those relevant beliefs. For consistency checks to be possible, the population must be sufficiently small. This is where the first worry emerges. If the population is too small – perhaps as it must be to perform a consistency check – then it likely fails to be robust enough to satisfy other necessary conditions for coherence. For example, a collection too small likely cannot satisfy Lehrer's explanatory characterization of coherence (whereby member beliefs either explain or are explained by other member beliefs), above, in such a way that could satisfy the adequate-justification condition of knowledge.

The natural response to this worry is to emphasize that coherence ranges over the whole web of belief and is not limited to operation within the subsets. However, there is a potential partitioning problem. This is the second worry. Presumably there is a rough inverse relationship between the size of the subsets and the number of subsets in S's overall belief set. Given how small a subset must be so that a consistency check is possible, there is likely large numbers of these subsets. If each subset comprises only those propositions that are logically related to one another, then it should conversely hold that subsets are not logically related to other subsets. If not, then it becomes difficult to see just how S's beliefs, once divided among these subsets, are able to work together in order to achieve coherence. Given enough partitions in the web of belief, the justificatory power of coherence is diminutive.

To illustrate these worries, consider the opening lines of *Pride and Prejudice* concerning the truth discussed (that a man in possession of good fortune must be in want of a wife). Though

easy to check for consistency, it is difficult to see how, for instance, they adequately explain or are explained by components in the rest of the novel. If they are so distinct that mention of them never appears anywhere else in the novel, it would seem that they fail to sufficiently cohere with the rest of the novel such that they are not epistemically justified beliefs for S. It is clear that the two sentences are not jointly incoherent; but not being incoherent is not sufficient for coherence. Put another way, incoherence and coherence are contraries, not contradictories (Murphy 2006).

In short, we might worry that there is a tension between Wunderlich's algorithm and other necessary conditions of coherence. If, on the one hand, a subset small enough to perform consistency checks, then it may not be to satisfy other necessary conditions such that S never satisfactorily justify member belief of those subsets. If, on the other, a subset is large, then it may not be possible to perform consistency checks. Moreover, if the subsets are too distinct, then it is questionable whether one has formed partitions in one's belief set and, therefore, whether these subsets can cohere.

Before closing, I wish to gesture in the direction of one possible reply to these worries. Wunderlich could insist that logical relevance does not exhaust the categories of relevancy over which coherence ranges. Perhaps the example from Murphy, above, is instructional. For example, coherentists who adopt an explanatory requirement for the coherence relation could maintain that the explanation is not reducible to logical terms. If not, then the mere fact that subsets are logically irrelevant to one another would not imply that they are, for instance, explanatorily irrelevant to one another. If explanatory coherence can range over the subsets despite their formal distinctness, then troubles arising from the smallness of each subset are dispelled.

3.4 Coherence and Explanation

Coherentists have noted the shortcomings of consistency, entailment, and other proposed conditions for the coherence relation. Some have turned toward explanation to supplement their accounts of coherence. An immediate shortcoming with these attempts is that a theory of explanation is no less a vexing philosophical problem than a theory of coherence. Moreover, in hanging their hopes on explanation, coherentists are obliged to adopt an adequate theory of explanation. One condition for adequacy is that the terms “justification” or “knowledge” are not part of the analysis of explanation. Given failure of this condition, the analysis of explanation would be in terms of justification and knowledge which would in turn be analyzed in terms of explanation, leading the coherentist in a small circle (Lehrer 2000: 106).

Harman sees explanation as analogous to “because” statements: “On the revised account, we infer not just statements of the form *X causes Y* but, more generally, statements of the form *Y because X* or *X explains Y*” (Harman 1973: 130). Harman notes that explanations are of the form, “*In circumstances C, X’s tend to be Y’s*” (Harman 1973: 131). Explanatory inferences are justified “if the explanatory claim *that X’s tend to be Y’s will explain why the next X will be Y* is sufficiently more plausible than competitors such as *interfering factor Q will prevent the next X from being a Y*” (Harman: 132).

Compare with Lehrer who similarly regards explanatory coherence, as we have seen, as dependent on the comparative reasonableness of a claim given its competitors. A “system *C1* has greater explanatory coherence than *C2* if and only if *C1* is logically consistent and *C2* is not, or both are consistent but more is explained in *C1* than *C2*, or both explain the same things but some things are explained better in *C1* than *C2*” (Lehrer 2000: 105). Harman and Lehrer seem to share the thought that the best explanation is an undefeated explanation.

We can characterize explanatory defeat through the analogue of justificatory defeat. Lehrer's account of justificatory defeat is too subtle and sophisticated to adequately exegete for present purposes, but the relevant feature can be explicated through the heuristic of a justification game (Lehrer 1989a: 253 – 256; Lehrer 1989b: 148 – 152). Consider S's acceptance system where member acceptances are personally justified for S if and only if they cohere with S's acceptance system. In lieu of explanatory coherence, this might mean, among other things, that member acceptances explain or are explained by other member acceptances.

A system X is an acceptance system of S if and only if X contains just statements of the form – S accepts that p – attributing to S just those things that S accepts with the objective of accepting that p if and only if p (Lehrer 1989a: 254). Imagine that S engages in the justification game with an omniscient critic. This omniscient critic is allowed to make revisions to S's acceptance system when a target acceptance – S accepts that p – is false, replacing one or more such statements with statements of the form – S accepts that not-p. In addition, the omniscient critic replaces all statements that are closed by such revisions (Lehrer 1989b: 148 – 149). Statement q is closed, roughly, when S accepts that p and p entails q. Call the resulting system of revised statements M:

If the critic can form a system M with the result that I am not justified in accepting p on the basis of M at t, then the critic wins the game, and my justification is defeated. If, on the other hand, my acceptance is such that no such system M has the result that I am not justified in accepting p on the basis of M at t, then I win, and my justification is undefeated (Lehrer 1989b: 149).

Analogously an undefeated explanation is an explanation which, like justification for Lehrer's justification game, is not eliminated by correction of content in S's web of belief. An explanation is initially warranted if it is not beaten by competitor explanations. A competitor explanation, *c*, is one in which it is more reasonable for S to accept the explanation *p* because *q* on the assumption that *c* is false than on the assumption that *c* is true, on the basis of the acceptance system *X* at *t* (Lehrer 1989a: 255). Explanation *p* because *q* beats competitor explanation *q* because *c* for S at *t* if and only if it is more reasonable, given S's acceptance system *X*, to accept *q* than *c* on the basis of *X* at *t*. Undefeated explanations are like acceptances of system *M* for which S retains personal justification. If, given *M*, an acceptance is justified, then S's personal justification for the acceptance that *p* is vindicated. Likewise, explanations are undefeated when, given corrections in S's acceptance system *X*, the explanation is not eliminated or undermined.

BonJour appeals to explanatory relations as a means to enhance the coherence of a belief set. Construing the central insight of explanation negatively, he suggests that the web of belief suffers from a loss of coherence if the set contains anomalous members; that is, if the set contains member beliefs that cannot be explained by reference to other beliefs in the web. The "distinctive significance of anomalies lies rather in the fact that they undermine the claim of the allegedly basic explanatory principles to be genuinely basic, and thus threaten the overall coherence of the system" (BonJour 1985: 99). He offers the following desideratum for an account of coherence:

The coherence of a system of beliefs is decreased in proportion to the presence of unexplained anomalies in the believed content of the system (BonJour 1985: 99).⁶

BonJour's desideratum, though intuitively appealing, is deficient. If, upon reflection, we discover unexplained anomalies in our belief set, we can repair our web in one of two ways. Either we can increase the explanatory coherence of a system either "by adding statements that explain or by subtracting statements to be explained" (Lehrer 2000: 109). From a formal point of view, both are equally good. From an epistemic point of view, adding explainers tends to be more preferable to ignoring evidence contrary to one's world view. Yet to "reduce what is unexplained, one may refuse to concede the truth of those statements that need explanation" (Lehrer 2000: 108). For example, the belief that humankind literally descended from Adam and Eve seems to be at odds with our best-established evolutionary theories and their data. But one could, at least in principle, maintain a coherent belief set that retains the literal belief in the common ancestral linkage to Adam and Eve if one jettisons the corpus of evolutionary theory, the data, and its corollaries. Similarly for the Flat Earth Society, members can, at least in principle, coherently maintain the belief that Earth is flat by eliminating evidence to the contrary. These examples smack of old objections to coherentism. While we do not take them to be good arguments against coherence, we refer to them as a way to suggest that explanatory coherence is needs to be supplemented with a condition that eliminates cherry picking as a legitimate means of achieving coherence.

⁶ BonJour (1985) offers five desiderata for a theory of coherence. In section 3.3, we saw the first two desiderata. This is the fifth.

BonJour ultimately agrees with this assessment. The central lesson is that the “epistemologically significant concept of coherence is bound up with the idea of *justification*, and thus any sort of inference relation which could yield some degree of justification also enhances coherence, whether or not such a relation has any explanatory force” (BonJour 1985: 100). Justification is explicated, though not exhaustively, by explanation. Explanation is a condition of justification, but since “coherence is also enhanced by inferential connections of a nonexplanatory sort,” explanation is therefore not a sufficient condition of the coherence relation (BonJour 1985: 100).

A number of reasons can be adduced to supplement the conclusion of the insufficiency of explanation for coherence. We will only mention two from Lehrer. First, there is the opacity problem (Lehrer 2000: 116). If the fact that S’s belief that p explains or is explained by some of other S’s beliefs is opaque to S, then the presence of opacity will fail to justify S in their belief that p. An important element in explanation is transparency, meaning that S must recognize that their justified beliefs are somehow related or hang together (Murphy 2006). This is to introduce a psychological requirement for coherence that we will not further explore. Second, there are cases in which one may arrive at the best explanation, given the available information, for something but that even the best explanation is inadequate. “This suggests that we must require that a hypothesis not only explain better than any alternative we can conceive but also that it must be a comparatively good explanation, good enough so that we are justified in accepting it” (Lehrer 2000: 117).

4. Infinitism

Infinitism has not been endorsed at all in the history of philosophy until very recently. The name “infinitism” did not appear in the literature, Klein notes, until Paul Moser (1984) and John Post (1987) (Klein 1998: 919). The earliest known infinitist is Charles Sanders Pierce who has at least the makings of the view (Aikin 2009: 72; Klein 1999: 306, 320 – 321). Though remaining thoroughly underdeveloped, infinitism has benefitted from the erudition of Scott Aikin (2005, 2008), Jeremy Fantl (2003), Peter Klein (1998, 1999, 2005a, 2005b, 2007a, 2007b), and John Turri (2009).

Infinitism is, broadly, defined by three theses. First, infinitism is a nonterminal theory of justification. Unlike foundationalism and coherentism, infinitism posits that no “final” reason can be offered such that the regress of reasons ends. Whatever the matter in question, the matter is never completely settled – not even whether reasoning can completely settle a matter (Klein 2003; Klein 2005a). Roughly this is because for each answer, one can ask at least one question; for each question, one can offer at least one further answer, etc. This is a consequence of infinitism’s rejection of PAR.

Second, infinitism joins coherentism in its rejection of basic beliefs. The consequence of infinitism’s endorsement of PAA leads to some parallels with coherentism. For both coherentism and infinitism, there is a sense available in which all justified beliefs are nonbasic because that they lack the denotative property Φ of basic beliefs. No belief for the infinitist or coherentist is autonomously warranted. There is another sense available for coherentism and infinitism such that all justified beliefs are basic in sense of a specific property that all justified beliefs possess. This property can be distributed among two models of infinitist relations.

The first model of infinitist relations, the warrant-transfer model, posits that members of an infinite series are justified only if each member of the series has communicated propositional justification inferentially to each member sequentially. This means that member beliefs are the primary bearers of both the property of being propositionally justified and of the property of standing in the right kind of inferential relation to epistemically prior beliefs.

The second model of infinitist relations, the warrant-emergent model, makes use of two separate properties when talking about warrant. There is the property of membership in an infinite series possessed by individual beliefs and there is the property of warrant possessed by the series. The latter property, like coherence, is not reducible property of any particular belief. The property of being propositionally justified is emergent for both coherentism and infinitism – it arises, but supervenes upon, the property of membership in the right kind of set, whether a coherent set or infinite series (Klein 2005a: 135 – 138; Klein 2007a: 8).

Third, infinitism is, like foundationalism, a linear model of justification. This is a consequence of infinitism's endorsement of PAC. As we saw, linearity is a function of two traits: the direction of justification and the privilege of certain beliefs with respect to other beliefs. Infinitism is like foundationalism in that justification moves only one-way, from those beliefs which appear earlier in an infinite series to those which appear later. No belief may appear in its own evidential ancestry. Moreover, infinitists posit that some beliefs are privileged with respect to other beliefs. Consider the three argument arrangements for the set of beliefs, {p, q, r}, which we saw above, maintaining the assumption that each argument is valid:

(i)	(ii)	(iii)
p	q	r
<hr/> q <hr/>	<hr/> r <hr/>	<hr/> p <hr/>
r	p	q

As in the case of any of these arguments, the premises are both epistemically prior and privileged with respect to the conclusions. Like foundationalism, infinitism rejects that all beliefs are on par in the sense that we could justifiedly endorse (i), (ii), and (iii). If, for example, (i) is endorsed as epistemologically cogent support for the belief that r, then the infinitist has rejected the possibility of (ii) and (iii). Infinitism has something common with moderate foundationalism in this respect.

That is where the similarities end however. Since infinitism rejects the doctrine of basic beliefs, there can be no justified belief that is privileged in the sense of never having a role as both a premise in one argumentative arrangement and the conclusion in another – though distinct – arrangement. What distinguishes infinitism from coherentism is that those beliefs which serve as premises for certain beliefs will always be privileged with respect to those beliefs. Thus if the infinitist endorses (i), p and q are always footing for r and r can never be a member of the evidential ancestries for either p or q. But there will be reasons that support p and q for which p and q cannot, in turn, serve as support; and reasons for those reasons; etc.

The three theses of infinitism intertwine when S's belief that p is justified because an infinite, nonrepeating series of reasons are available to S as a result of either its inferential arrangement in an infinite, nonrepeating series or because of its membership in an infinite, nonrepeating series. Thus in returning to PAA and PAC, justifiers take the form of good,

undefeated reasons and kind *k* takes the form of available reasons. To gain a clearer understanding of infinitism, we must therefore answer two questions:

- (1) What is it for S to have a *reason* available for the belief that p?
- (2) What is it for S to have a reason *available* for the belief that p?

In section 4.1, we explain the relevant features of reasons so that we may answer (1). In section 4.2, we explicate the concept of availability so that we may answer (2). With both concepts at our disposal, infinitist theories of epistemic justification can be appreciated for their depth and sophistication.

4.1 Infinitism and Reasons

Like the use of “justifiers” and “kind *k*” for formulating propositional and doxastic justification, the use of “reasons” by infinitists is such that any adequate theory of reasons may be inserted. The theory of reasons at the infinitist’s disposal is equally well-disposed to infinitism’s competitors. It is in the interest of foundationalists, coherentists, and infinitists alike, Klein notes, to develop an account of reasons because theorists of all stripes “will have to employ [“reasons”] because each view holds that there are reasons for at least some of our beliefs” (Klein 2005: 137).

Some examples of candidate theories of reasons are the following (Klein 1999: 299; Klein 2005: 137; Klein 2007: 12). For all such theories, p is a reason for q if and only if:

1. p is true and it renders q probable; or

2. if p is probable, then q is probable, and if p is not probable, then q is not probable; or
3. if p were true, q would be true, and if p were not true, q would not be true; or
4. p would be acceptable as a reason for q in the long run by the appropriate epistemic community; or
5. an impartial, uninformed observer would accept p as a reason for q; or
6. an omniscient critic would not revise the manner in which p is a reason for q; or
7. p would be offered as a reason for q by an epistemically virtuous individual; or
8. believing that q on the basis of p is in accord with one's most basic epistemic commitments; or
9. there is at least one cognitive process available to S which reliably takes true beliefs that p as input for the output true beliefs that q; or
10. p is evident to S and p makes q evident to S; or
11. p meets the appropriate conversational presuppositions.

The list is by no means meant to be exhaustive, but it should be amply clear that infinitism can get behind any of these theories and “opt for whatever turns out to be the best account since each of them is compatible with what the infinitist is committed to” (Klein 2007: 12). This result should not be terribly surprising since foundationalists and coherentists can equally well get behind any of these theories and opt for whatever turns out to be the best account. It is important to therefore note that for any theory of reasons, it will be the case that “not just any proposition will function as a reason for other beliefs” (Klein 2009: 300). Reasons are special in the sense that they must behave like justifiers: they make the proposition that p sufficiently probable for S at t.

Given the array and generality of possible varieties of reasons, it perhaps best simply to recall our definition of doxastic justification:

A proposition p is *doxastically justified* for S at time t if and only if p is propositionally justified for S at t and S 's production of justifiers, $j_1, j_2, j_3, \dots, j_n$, for p actually manifests S 's relevant cognitive dispositions.

The manifestation of S 's relevant cognitive dispositions in concrete instances is what we may call reasoning, i.e. the production of reasons. The reasons thus produced are justifiers, $j_1, j_2, j_3, \dots, j_n$, for S at t for the belief that p .

4.2 Infinitism and Availability

Klein (1999, 2005, 2007) has used examples, analogies, and ostensive definition to clarify the components of availability to which infinitism is committed. If a proposition to be available to S , it “must be appropriately ‘hooked up’ to S 's beliefs and other mental contents at t . In order for a proposition to be available in this sense it need not be occurrently available or endorsed by S at t ” (Klein 2005: 136). Propositions available to S at t “are like money in S 's bank account that is available to S if S has some legal way of withdrawing it even if S is unaware that the money is there or takes no steps to withdraw it” (Klein 2007: 13). We formulate availability accordingly:

A proposition p is *available* to S at t if and only if S can produce p at t via the manifestation of the relevant cognitive dispositions.

Consider the example of the mathematical proposition $\langle 366 + 77 = 437 \rangle$ for the relevant mathematical cognitive dispositions. We can come to accept that $\langle 366 + 77 = 437 \rangle$ by utilizing our cognitive machinery despite the fact that we have never entertained the proposition. We are, as Klein puts it, “*disposed to think* that $366 + 71 = 437$ after a bit of adding given our belief that $6 + 1 = 7$, that $7 + 6 = 13$, etc... Thus, there is clearly a sense in which we believe that $366 + 71 = 437$ is subjectively available [to us] because it is correctly hooked up to already formed beliefs” (Klein 1999: 308).

The lesson is threefold. First, occurrent beliefs do not exhaust the categories of belief that human beings possess. It is in this wider sense of belief, one which includes dispositional beliefs, whether construed as first- or second-order dispositions, that counts for the availability of p for S at t . Second, as should come to no surprise to the reader, the phrase “relevant cognitive dispositions” is a placeholder for an adequate theory of such dispositions. They probably include, as we have seen, mathematical beliefs, but most definitely include others. Theorists are free to insert whatever dispositions they require for their purposes. Third, nothing in the present discussion of availability precludes foundationalism or coherentism. It may well be remarked that availability, like reasons, is sometimes as essential to the foundationalist or to the coherentist as it is to the infinitist. What separates infinitism from foundationalism and coherentism is a peculiar specification of availability: for any doxastically justified proposition p , there is at least one infinite, nonrepeating series of reasons available to S at time t for p . We might hasten to add, however, that each theory has, with respect to its competitors, a unique specification of availability.

One may ask whether it is possible for S to have an infinite number of available reasons for p at t. Our *prima facie* answer is in the affirmative. Reconsider the example of the proposition $\langle 366 + 77 = 437 \rangle$. The proposition was selected arbitrarily from an infinite set of such propositions. It seems, at least on the face of it, that S could similarly have available the corpus of all such arithmetic propositions. Nothing stops S from forming the belief that $\langle 984 + 593 = 1157 \rangle$, or that $\langle 4938 + 384 + 1465 = 6787 \rangle$, etc.

Consider a supplementary example from Klein (2005). Suppose S knows only the artificial language *l* consisting of no more than the primitive vocabulary {x is F, red, indexical “that”} such that S can believe of an object: that is red. Suppose further that there are an infinite number of red objects. S could believe of each object: that is red. Since the truth conditions for each of the propositions affirmed is different, the beliefs are distinct. We should mention that infinitism, at least as far as a structural theory of epistemic justification is concerned, is not committed to the existence of an infinite number of red objects. That is not the point. Klein’s example admirably demonstrates how far – indeed infinitely far – our access to new propositions can reach. Klein has shown that finite minds have available to them an infinite number of beliefs (Klein 2005: 138).

Mere possibility is not enough. One may ask whether it is plausible for S to have an infinite number of available reasons for p at t. While the answer to that question cannot be properly addressed presently, it is worth suggesting that human understanding is a dynamic enterprise. We are constantly inventing and refining new concepts to understand what was hitherto unknown. Recent additions to the collective corpus of human beliefs include atoms, dark matter, evolution, germs, gravitation, greenhouse gases, magnetism, nanotechnology, quarks, strings, etc., each ushering huge expanses of theoretical domains, instrumentation, and methods.

They invite inquiry, questions, conundrums, etc., to be squared in light of our already existing corpus of beliefs. Problems invite further expansions of our vocabulary and understanding.

In short, these terms are not mere neologisms. They are expansions in the availability of potential reasons. How far can this enterprise go? Is it endless? Is there an end to inquiry? It hardly seems worth staking a claim as to whether there is an end to inquiry so that one can summon up an objection to the plausibility of S's possession of an infinite number of available reasons for p at t.

5. Dialectical Peculiarity

We have completed our exegesis of foundationalism, coherentism, and infinitism. In the following subsections we examine three of the most prominent arguments concerning each structural theory respectively. In section 5.1, we inspect the regress argument for foundationalism. In section 5.2, we scrutinize the alternative systems objection to coherentism. In section 5.3, we look at the finite minds objection to infinitism. In 5.4, we conclude by sketching a number of possible analyses of our peculiar findings.

5.1 Regress Argument for Foundationalism

One of the oldest arguments adduced for foundationalism is the regress argument. Aristotle produced one of the first:

Now some think that because one must understand the primitives there is no understanding at all; others that there is, but that there are demonstrations of everything. Neither of these views is either true or necessary.

For the one party, supposing that one cannot understand in another way, claim that we are led back *ad infinitum* on the grounds that we would not understand what is posterior because of what is prior if there are no primitives; and they argue correctly, for it is impossible to go through infinitely many things. And if it comes to a stop and there are principles, they say that these are unknowable since there is no *demonstration* of them, which alone they say is understanding; but if one cannot know the primitives, neither can what depends on them be understood *simpliciter* or properly, but only on the supposition that they are the case.

The other party agrees about understanding; for it, they say, occurs only through demonstration. But they argue that nothing prevents there being demonstration of everything; for it is possible for the demonstration to come about in a circle and reciprocally.

But *we* say that neither is all understanding demonstrative, but in the case of immediate it is non-demonstrable – and that this is necessary is evident; for if it is necessary to understand the things which are prior and on which the demonstration depends, and it comes to a stop at some time, it is necessary for these immediate to be non-demonstrable. So as to that we argue thus; and we also say that there is not only understanding but also some principle of understanding by which we become familiar with the definitions.

And that it is impossible to demonstrate *simpliciter* in a circle is clear, if the demonstration must depend on what is prior and more familiar; for it is impossible for the same things at the same time to be prior and posterior to the same things – unless one is so in another way (i.e. one in relation to use, the other *simpliciter*), which induction

makes familiar. But if so, knowing *simpliciter* will not have been properly defined, but will be twofold. Or is the other demonstration not demonstration *simpliciter* in that it comes from about what is more familiar *to us* (Aristotle 1995: 117 – 118)?

The argument is interesting because two distinct regress arguments can be generated from the schema of the regress argument. The first regress argument is epistemic: if some epistemic justification is inferential, some must not be inferential (Fumerton 2010; Klein 1999 310 – 311). The second regress argument is conceptual: fundamental to our understanding of inferential justification is an understanding of noninferential justification because we need to “introduce a concept of noninferential justification in terms of which we can then recursively define inferential justification” (Fumerton 2010). We consider only the epistemic regress argument (ER).

Given Agrippa’s Trilemma, Aristotle’s ER is but a familiar variation. To see how they compare, consider the following formulation of the ancient trilemma:

- (1) For any belief, *p*, if *p* is justified for *S*, then *p* is justified either by an endless regress of reasons, terminal reasons, or circular reasons.
- (2) If *S*’s belief that *p* is justified by an endless regress of reasons, then *S* must have a good and undefeated reason, *q*, for *p*; and *S* must have a good and undefeated reason, *r*, for *q*; and *S* must have a good and undefeated reason...
- (3) But *S* cannot have an infinite number of good and undefeated reasons. For example, *S* cannot because finite minds cannot have an infinite number of beliefs; or because *S* has no point from which to begin establishing anything.

- (4) So S's belief that p cannot be justified by an endless regress of reasons.
 - (5) If S's belief that p is justified by terminal reasons, then S must have a good and undefeated reason, q, for p such that q needs no further reason.
 - (6) But S cannot have a good and undefeated reason, q, for p such that q needs no further reason. For example, S cannot because there is no reason to think that q is a good and undefeated reason for p; and if there is a reason, r, to think that q is a good and undefeated reason for p, then the regress has not terminated.
 - (7) So S's belief that p cannot be justified by terminal reasons.
 - (8) If S's belief that p is justified by circular reasons, then S must have a good and undefeated reason, q, for p and S has a good and undefeated reason for q, namely p.
 - (9) But cannot have S must have a good and undefeated reason, q, for p and S has a good and undefeated reason for q, namely p. S cannot because this is an instance of fallacious reasoning, whether circular reasoning or begging the question.
 - (10) So S's belief that p cannot be justified by circular reasons.
 - (11) It is not the case that S's belief that p is justified by an endless regress of reasons, terminal reasons, or circular reasons.
-
- (12) Therefore, S's belief that p is not justified.

Compare ER:

- (1a) S has some justified beliefs.

- (2a) For any belief, p, if p is justified for S, then p is justified either by an endless regress of reasons, circular reasons, or noninferentially.
- (3a) Assume for *reductio* that none of S's beliefs can be justified noninferentially.
- (4a) If S's belief that p is justified by an endless regress of reasons, then S must have a good and undefeated reason, q, for p; and S must have a good and undefeated reason, r, for q; and S must have a good and undefeated reason...
- (5a) But S cannot have an infinite number of good and undefeated reasons. For example, S cannot because finite minds cannot have an infinite number of beliefs; or because S has no point from which to begin establishing anything.
- (6a) So S's belief that p cannot be justified by an endless regress of reasons.
- (7a) If S's belief that p is justified by circular reasons, then S must have a good and undefeated reason, q, for p and S has a good and undefeated reason for q, namely p.
- (8a) But cannot have S must have a good and undefeated reason, q, for p and S has a good and undefeated reason for q, namely p. S cannot because this is an instance of fallacious reasoning, whether circular reasoning or begging the question.
- (9a) So S's belief that p cannot be justified by circular reasons.
- (10a) It is not the case that any of S's belief can be justified by an endless regress of reasons or circular reasons.
- (11a) S's belief that p cannot be justified.
- (12a) But (11a) contradicts (1a).
-
- (13a) Therefore, some of S's beliefs are justified noninferentially.

Unfortunately, Aristotle's argument does not offer good grounds to accept foundationalism. It does not offer good grounds for two reasons.

First, ER does not qualify as a suitable response to skepticism. Premise (1a) is indispensable for ER because it is required for the *reductio* to generate the contradiction that ultimately drives the proof of noninferential justification. Given that the skeptic calls the possession of knowledge into question, (1a) will not be so readily granted. ER is question-begging argument in the face of skepticism. The foundationalist will need to find independent grounds to suppose that S has any justified beliefs. But if the foundationalist can show that S has any justified beliefs, then S has foundationally, e.g. noninferentially, justified beliefs and ER is superfluous.

Second, ER does not qualify as a suitable argument for foundationalism vis-à-vis coherentism or infinitism. ER is something of a straw man. Foundationalism is as much a model of fallaciously arbitrary reasoning as coherentism is a model of vicious circular reasoning or as infinitism is a model of a vicious regress in reasoning. Foundationalism does not posit that basic beliefs are arbitrary, yet that is what one horn of the trilemma, specifically premises (5) – (7). If the foundationalist may reject (5) – (7), the coherentist should be able to reject (8) – (10) and the infinitist (2) – (4). If the foundationalist is allowed to deny the anti-foundationalist premises of the ancient trilemma and press the others, it would seem like an equally legitimate rhetorical maneuver for the coherentist or the infinitist. Consider an analogue to ER for coherentism, ER_C:

(1c) S has some justified beliefs.

(2c) For any belief, p, if p is justified for S, then p is justified either by an endless regress of reasons, terminally, or by coherence.

- (3c) Assume for *reductio* that none of S's beliefs can be justified by appeal to coherence.
- (4c) If S's belief that p is justified by an endless regress of reasons, then S must have a good and undefeated reason, q, for p; and S must have a good and undefeated reason, r, for q; and S must have a good and undefeated reason...
- (5c) But S cannot have an infinite number of good and undefeated reasons. For example, S cannot because finite minds cannot have an infinite number of beliefs; or because S has no point from which to begin establishing anything.
- (6c) So S's belief that p cannot be justified by an endless regress of reasons.
- (7c) If S's belief that p is justified by terminal reasons, then S must have a good and undefeated reason, q, for p such that q needs no further reason.
- (8c) But S cannot have a good and undefeated reason, q, for p such that q needs no further reason. For example, S cannot because there is no reason to think that q is a good and undefeated reason for p; and if there is a reason, r, to think that q is a good and undefeated reason for p, then the regress has not terminated.
- (9c) So S's belief that p cannot be justified by terminal reasons.
- (10c) It is not the case that any of S's belief can be justified by an endless regress of reasons or terminal reasons.
- (11c) S's belief that p cannot be justified.
- (12c) But (11c) contradicts (1c).
-
- (13c) Therefore, some of S's beliefs are justified by coherence.

It would not be difficult to make an analogue of ER for infinitism. The principal lesson is that there is little reason, at least from the logic of the trilemma alone, to not instead privilege PAR and PAA to conclude with the denial of PAC and the affirmation of coherentism; or not to privilege PAA and PAC to conclude with the denial of PAR and the affirmation of infinitism. One needs more than formal principles to argue for any of the three structural theories. One needs some additional dialectical resource that legitimates the privilege Aristotle gives to PAR and PAC.

Suppose for a moment that the foundationalist has recourse to some additional dialectical resource that provides grounds to prefer PAR and PAC to conclude with the denial of PAA and the affirmation of foundationalism. What shall we make of Aristotle's argument then? In such a case, the epistemic regress argument is at best doing the least amount of work in the overall argument for foundationalism and is at worst completely superfluous in the overall argument for foundationalism. The failure exhibited by the regress argument is that Aristotle offers the epistemic regress argument precisely as the grounds to prefer PAR and PAC to conclude with the denial of PAA and the affirmation of foundationalism.

5.2 Alternate Systems Objection to Coherentism

One of the classical objections to coherentism is, as Feldman (2003) calls it, the Alternate Systems Objection (AS). It was one of the original arguments developed by classical foundationalists in their efforts to undermine the case for coherence. Bonjour expressed the objection thus:

According to a coherence theory of ... justification ... the system of beliefs which constitutes ... knowledge is epistemically justified *solely* by virtue of its internal coherence. But such an appeal to coherence will never even begin to pick out one uniquely justified system of beliefs, since on any plausible conception of coherence, there will always be many, probably infinitely many, different and incompatible systems of belief which are equally coherent. No nonarbitrary choice between such systems can be made solely on the basis of coherence, and thus all such systems, and the beliefs they contain, will be equally justified (BonJour 1985: 107).

By way of summary, BonJour says that “no matter how high the standard of coherence is set, it seems clear that there will be very many, probably infinitely many, systems of belief which will satisfy it and between which such a coherence theory is will be unable to choose in an epistemically nonarbitrary way” (BonJour 1986: 25). In a nutshell, the objection purports to show that coherence is an inadequate theory of justification because we can construct several mutually inconsistent belief sets that robustly satisfy all the conditions of achieving coherence. Given that the beliefs are mutually inconsistent, they cannot all be true. Since the possession of justification is a testament to a belief or belief set’s likelihood of being true and the coherence theory of justification posits that beliefs are justified just in case they cohere with a belief set, coherence alone cannot decide between these mutually inconsistent belief sets. If coherence cannot so decide, coherence is an inadequate theory of justification.

We have two modes of general reply to AS. The first is an aggressive response. The aggressive response notes that if AS grounds enough to reject coherentism, it would lead to skepticism. This is because there is nothing about foundationalism *per se* or infinitism *per se* that

eliminates the possibility of alternate, inconsistent belief sets. Given disparate enough foundations between different belief sets, resulting belief sets will likely be mutually inconsistent with one another. It is doubtful that the foundationalist could combat this possibility by including all noted basic beliefs of mutually incompatible belief sets for two reasons. First, there is probably an infinite number of such belief sets. Second, completeness is likely unobtainable, especially where some beliefs pertaining to complex formal systems are concerned. The latter reason alludes to Gödel. The issue is equally well pronounced for the infinitist. For any segment of any length of a propositionally justified series of reasons, there might be an infinite number of series that replicate that segment.

It might be objected that the aggressive reply cannot be generalized so easily. Consider classical, i.e. strong, foundationalism wherein the basic beliefs are justified and therefore true. Foundationally justified beliefs are true because strong foundationalism maintains the thesis of infallibilism. The infallibilist thesis is that justification has a guaranteed purchase on truth. Consequently, if one were to compare any two strongly foundationally justified belief sets, one might hold that either they must actually be the same belief set or that they can, at least in principle, be subsumed under a single belief set. In either case, there cannot be any genuinely incompatible strongly foundational belief sets.

We have a tempered concession. Strictly speaking, the objection is correct in that one cannot generate any strongly foundationalist belief sets that are genuinely incompatible with one another. But what is doing the work for the guarantee of consistency among belief sets is not foundationalism but rather infallibilism. Our thesis is that it is that there is nothing about foundationalism *per se* that precludes the possibility of the formation of a general AS that applies to all structural theories. Our thesis obtains even in the face of such an objection because

infallibilism is not a thesis of foundationalism *per se*. Given that infallibilism is not an essential thesis of foundationalism, our original contention is correct.

Of course, the thesis of infallibilism is essential to strong foundationalism. This leads us to our second point. The move to infallibilism is not one that precludes adoption by a coherentist or an infinitist. If one were to couple the thesis of infallibilism with coherentism or infinitism, one would get the same result for coherentism or infinitism. The overarching thesis of the present argument, namely that the essential dialectical features of AS, good or ill, can be generalized to apply to all theories, would command additional support. This would be – and is – just another instance in which the peculiar result of generality rears its head.

Additionally, the thesis of the aggressive response obtains because neither infallibilism nor the possession of infallibly justified beliefs is inconsistent with the aggressive reply. It could just as well be that the antecedent – that AS grounds enough to reject coherentism – is false and that therefore the conditional – if AS grounds enough to reject coherentism, then skepticism – is true. This could be the case, for example, if strong foundationalism was true and that AS was an inadequate criticism of coherentism.

The second mode of reply is defensive. We should remark that AS is problematic only where *both* of the two incompatible belief sets, λ and η , are well-justified. The attainment of sufficient justification with respect to λ and η is theory-neutral. To the extent that λ or η are only weakly justified, our commitments to either are analogously weak, and it seems like we would be free to give up either – or both – in lieu of recognizing that they are incompatible. If, however, λ and η individually exhibit high levels of justification, it seems like we could adopt both belief sets as subsets of our overall belief set in an attempt to dissolve the apparent conflict.

The attempt to dissolve the apparent conflict between that λ and η would come via the formation of the metabelief that λ and η are not, in actuality, incompatible. The content of that metabelief would need to specify how the apparent incompatibility points not to a failure of theory, but an *incompleteness* of theory. We should take the commitment to such a metabelief in an analogous spirit to the commitment to theoretical constructs, like certain unobservable particles in theoretical physics, or abstract objects in certain types of metaphysics. The metabelief would therefore attempt dissolve the apparent conflict between λ and η by pointing to a failure of imagination.

The high levels of justification for λ and η intimate to a believing subject that they are likely correct. Of course, it may turn out that neither λ nor η are correct. The metabelief cannot guarantee that λ and η are not genuinely incompatible with one another. It may turn out that they are. The metabelief solution is admittedly hazardous if adopted without care. Precaution dictates that this metabelief come with specifications concerning how to alleviate the apparent tension between λ and η . Such specifications might include the direction of a research program, reflective equilibrium, and belief revision in the face of genuinely incompatible or propositionally unjustified sets of beliefs.

Concerns aside, it is hard, without further principle, to rule the metabelief solution out. It is not obviously doxastically irresponsible. Those individuals prone to abuse the solution are likely doxastically irresponsible agents for whom the solution is just another means to manifest that irresponsibility. We should recognize that the fact would remain that doxastically irresponsible agents are irresponsible with or without recourse to the solution. The solution would not be the source of the problem. Furthermore, since, *ex hypothesi*, λ and η are well-justified, it appears that the introduction of the metabelief is the theoretically most elegant

solution available. It simply seems more plausible, i.e. a better explanation, to suggest that the state of theory vis-à-vis λ and η is systematically incomplete rather than systematically incorrect.

5.3 Finite Minds Objection to Infinitism

The Finite Minds Argument has been one of the most commonly cited reasons for the rejection of the infinitist option. It has been articulated by many. Lawrence BonJour, for example, is one such scholar who has appealed to it:

For if construed as a claim about actual human knowers, the infinite regress view clearly entails the dubious thesis that any person who has any... knowledge at all possesses an *infinite* number of... beliefs. And surely, the argument continues, this is impossible for a creature with only a finite mental capacity and a finite brain. Though it is difficult to state in a really airtight fashion, this argument seems to me an adequate reason for rejecting [infinitism] (BonJour 1985: 24).

John Williams has also given the Finite Minds Argument clear expression:

The [proposed] regress of justification of S's belief that p would certainly require that he hold an infinite number of beliefs. This is psychologically, if not logically, impossible. If a man can believe an infinite number of things, then there seems to be no reason why he cannot know an infinite number of things. Both possibilities contradict the common intuition that the human mind is finite. Only God could entertain an infinite number of beliefs. But surely God is not the only justified believer (Williams 1981: 85).

For our purposes the Finite Minds Argument (FM) is formulated accordingly:

- (1) If infinitism is true and we have any doxastically justified beliefs, then we must have an infinite number of beliefs.
 - (2) But we cannot have an infinite number of beliefs.
 - (3) So either infinitism is false or we do not have any doxastically justified beliefs.
 - (4) We have some doxastically justified beliefs.
-
- (5) Infinitism is false.

FM seems initially plausible. Unfortunately it rests upon deep misunderstandings about the theoretical commitments of infinitism and is consequentially subject to a number of criticisms that undermines its effectiveness. Peter Klein has spent much ink rebutting FM, especially objecting to (1) and (2) (Klein *op. cit.*). We consider some of the rebuttals briefly.

We should reject (1) because infinitism does not require an infinite number of beliefs. As we have seen, infinitism posits that for any doxastically justified belief that *p*, if *S* is justified in believing that *p* at *t*, *S* must have an infinite, nonrepeating series of reasons available for *p* at *t*. Propositions that are available for *S*, i.e. potential beliefs, are not tantamount to actual beliefs *S* holds.

We should reject (2) because it rests on a questionable specification of belief. It is obvious enough that finite minds cannot possess an infinite quantity of occurrent beliefs. If infinitism required that we need to possess an infinite number of occurrent beliefs, it would be a bad theory. But it does not. If the classification of belief is wider to include those relevant

cognitive dispositions, as discussed in section 4.2 above, then it is less than obvious that a subject cannot have an infinite number of beliefs. In fact, it would seem that there are cases in which an infinite number of beliefs can be had by a typical, finite epistemic agent.

It would be inappropriate to conclude that the advocates of FM ever intended to attack a straw man. Infinitism is a newcomer in the debate about the correct structural theory of justification and most iterations of FM predate any earnest developments of infinitist theory. Nevertheless, FM pretty clearly misunderstands infinitism's theoretical commitments and fails on that basis. Some might suggest that though FM fails, it can be reformulated in a way that preserves FM's core elements but does not attack a straw man. Consider the following reformulation of FM which we call the Finite Availability Argument (FA):

- (1*) If infinitism is true and we have any doxastically justified beliefs, then we must have an infinite number of beliefs.
 - (2*) But we cannot have an infinite number of beliefs.
 - (3*) So either infinitism is false or we do not have any doxastically justified beliefs.
 - (4*) We have some doxastically justified beliefs.
-
- (5*) Infinitism is false.

FA merits two immediate remarks. First, advocates of FM could get behind FA insofar as it fulfills its promise of salvaging the essence of FM in such a way that does not suffer from FM's immediate defects. Moreover FM and FA are formally identical and possess very little difference in content. Second, the alterations in the content from FM to FA render Klein's responses to (1)

and (2) ineffective to either (1*) or (2*). FA forces the infinitist to seek a new line of defense. Alas, whatever virtues FA preserves, it inherits serious defects from FM.

Before we analyze the familial defect shared by FM and FA, a word on one motivation to exploit the familial defect. One option universally available to the infinitist is the rejection of the premise that we possess any doxastically justified beliefs. If done so, infinitism would be purchased at the cost of skepticism. We need not pause long to mention the obvious disadvantages of such a response. Even worse than the theoretical commitment to skepticism is the prospect that competitor theories can be defended without such a burdening commitment. If so, the demands of parsimony might be sufficient to rule infinitism out as a viable competitor. Infinitists prepared to defend their theories by appeal to skepticism will want to level the playing field by arguing that FM and FA obliges foundationalists and coherentists to appeal to skepticism as well.

The question now is whether there is a familial defect in FM and FA that can be exploited in such a way that generates skeptical implications for all structural theories. It seems that there is such a defect. By way of introduction, let us say that the most interesting feature of this defect is that has a great number of different – though related – strains. We begin with the readiest strain of the defect, namely that both (2) and (2*) are question-begging, in order to make the defect as clear as possible. Consider a rough analogue of FA (call it FA_f) for moderate foundationalism:

- (1f) If foundationalism is true and we have any doxastically justified beliefs, then we must have at least one basic belief available to us.
- (2f) But we cannot have any basic beliefs available to us.

(3f) So either foundationalism is false or we do not have any doxastically justified beliefs.

(4f) We have some doxastically justified beliefs.

(5f) Foundationalism is false.

More sophisticated iterations of FA_f could be generated to include all foundationalisms. We could similarly generate variants of FA_f for strong foundationalism, weak foundationalism, and even coherentism. Whatever the variant of FA, the shared error among the second premise of all iterations of the argument is that it would all too be easy to refute any target structural theory by simply asserting that one of the target theory's core theses is false. In any argumentative context, theorists are obligated to adduce good reasons to accept their preferred view and, what amounts to the same, to reject competing views. In the debate about the structure of justification, there are three competing views: foundationalism, coherentism, and infinitism. Given that there are competitors, to offer that the competitor view is false as a reason for the belief that the competitor view is false is a textbook case of begging the question. The seed of error existed in FM, but it is difficult to detect in FM because (2) leans upon the intuitive force that we cannot have an infinite number of occurrent beliefs. That seems true.⁷ But, as we have seen, infinitism does not have such a commitment. When the second premise of FM is reformulated in FA so as to avoid attacking a straw man, (2*) has no analogous intuitive support. We are left in want of grounds to accept any variant of the second premise.

⁷ I am suggesting that it is possible that the intuitive support for FM can be Gettierized and that this might be the explanation for the appearance of (2)'s justified status. Since whether (2) can be Gettierized does not affect my argument, I do not explore this possibility.

We should not be mistaken to say that no such grounds can be adduced. Perhaps they can. But, as a matter of fact, no such grounds have been adduced for either FM or FA. Even if such grounds were adduced such that either FM or FA is not question-begging, FM and FA would be superfluous. We would not need either argument to make the case against the targeted structural theory. The case would have already been made.

Consider two additional iterations of the familial defect. These iterations of the familial defect are subtle. Their nature differs depending on how the elements of FM or FA are emphasized. The diverse iterations are most clearly seen when considering infinitist responses to FM. This point is perhaps best illustrated by example. Consider two cases.

First iteration. An objector might complain that a lot of to do is made of “availability” yet the account is, admittedly, no more than a stand in for a more complete account. An objector may well find the role of background beliefs – taken even in the wider sense of relevant cognitive dispositions – somewhat mysterious about how these background beliefs make an infinite number of reasons available to us. The objector might press that it is too difficult to see how, to use a mathematical set of dispositions, a series of reasons, like that $6 + 1 = 7$, that $7 + 6 = 13$, etc., form the justificatory basis for the belief that $366 + 71 = 437$. The objector might be dissatisfied with the lack of specificity about the nature of the justification chain for the belief that $366 + 71 = 437$, let alone more complex beliefs. Given these difficulties, the objector might conclude, availability is an inadequate basis to defend infinitism.

Second iteration. An objector might notice that it is unclear how, given the warrant-transfer model of infinitism, S could ever possibly be doxastically justified in their belief that p.

There is a serious problem lurking below the surface, one which Klein (*cf.* 2005) has discussed.⁸ Presumably there are both deductive and nondeductive inferences that are epistemically acceptable means of transmitting warrant from beliefs with it to beliefs without it. The objector might note that the beneficial properties – being erosion-proof and truth-preserving – that make deduction epistemically desirable, assuming the relevant closure principles hold, do not exist for nondeductive inferential principles. Over the course of warrant transmission, the credibility of deductive inferences is not lost, but the same is not likely true for nondeductive inferences. Granting that only a modicum of credibility is lost through nondeductive inferential warrant transmission, then it might be objected that it would seem that an infinitely long series of reasons connected inferentially would most certainly fail to provide warrant to satisfy the adequate justification condition of doxastic justification for posterior beliefs in the series. Thus for any transfer t , if t occurs after n , then, for any p inferred at n , p will not be justified for S ; formally, $\forall n [(n < t) \supset \forall p \sim Jsp]$. More plainly stated, given enough noninferential warrant transmissions (those which occur at or after t) all epistemically posterior members would fail to possess adequate warrant for justification.

The infinitist may exploit the defect in the first case by pointing out that specificity about “availability” exists for foundationalism or coherentism either. If it is the case that foundationalists and coherentists make use of the notion of availability, even if they do not call it such, the objection cuts both ways. It is equally mysterious how a set of basic beliefs, whatever they are, can ramify to justify the belief that $366 + 71 = 437$, let alone more complex beliefs much further away from the foundations. Parallel remarks apply to coherentism. There simply is no developed theory of any type that provides such an explanation. If the lack of development of

⁸ Klein actually endorses warrant-emergence infinitism on the basis of this difficulty (Klein 2005: 134 – 135).

an adequate theory of availability is good grounds to reject infinitism, it should be equally good grounds to reject foundationalism and coherentism.

The infinitist may exploit the defect in the second case by pointing out that the problem is with warrant-transfer models of justification, not with infinitism *per se*. It would not matter whether the ultimate support schema specified by the structural theory was foundationalist, coherentist, or infinitist. It is likely that, for any theory of justification, the number of possible nondeductive inferences that retain an acceptable level of credibility is too small to support more than a handful of even our occurrent beliefs, let alone our dispositions. This is not to say that no options are available to salvage warrant-transfer models of justification. But it is to say that the problem is one that applies generally – as would likely be the means to salvage warrant-transfer models.

Thus if it is granted that FA is a good objection to infinitism, it should be an equally good objection to foundationalism and coherentism. If infinitism can be saved by the appeal to skepticism, then so should foundationalism and coherentism. The kind of skepticism that emerges from such a commitment is consistent with the possibility of a correct structural theory of justification (or knowledge). While neither FA nor any of its variants should be granted as a good objection, the universal commitment to skepticism is not completely moot. Though perhaps useless as a reason to adopt infinitism, the skeptical implications of FM and FA is an additional instance in which the peculiar result of generality appears.

5.4 Interpreting the Peculiar

Up to this point we have examined our sample of prominent arguments concerning foundationalism, coherentism, and infinitism respectively and have found a very peculiar result –

generality. We have found that the core elements of our sampled arguments can be reformulated into more general arguments that apply to all competing structural theories of justification. It is now our mission to comment on what to make of such a result.

We recognize that we have excluded from our analysis – for the sake of space – several other prominent arguments that deserve to be examined. We recognize that our data is so far from satisfaction that it cannot hope to lend adequate support for any of the interpretations sketched below. That is a task designated for future work. The data of such work may help provide evidence for or against any of the possible interpretations. It may even propose new ones.

For now we must content ourselves with a few competing suggestions for what we are to make of our peculiar findings. In the following subsections we draft five possible interpretations of our data. We know not which is the most preferable or even whether, in the end, they constitute substantively different interpretations. One more or more interpretations may be consistent with one another. We leave these puzzles for the reader.

Refusal. The extent and strength of refusal comes in degrees. The weakest degrees of refusal are the most sober, reminding us that our sample of three arguments – four if one counts the barest allusions to BonJour's argument from doxastic ascent – is scant evidence for conclusions of any kind. At the lowest level of refusal, one waits for more information.

The next level of refusal takes the results as instructive about the business of defending and criticizing any structural theory. Moderate refusal holds that the phenomenon of generality is real but does not see it as necessarily problematic. It may posit that the peculiar result is a consequence of a kind of confusion (whatever that confusion may be) that permeates the way business as usual is conducted. Moderate refusal lends itself to the rejection of the three

arguments we analyzed, but it is open to the possibility that they – or other arguments – may return with whatever confusion that originally infected them cleared up.

Refusal need not stop there. Stronger degrees of refusal represent a positive attitude about the preservation of the literature's assumption that there is a fact of the matter; namely that there is a correct structural theory of justification. The height of this attitude may broach dogmatic levels. Strong degrees of refusal maintain that there is a fact of the matter about which structural theory of justification is the correct one even in the face of mounting contrary evidence. For those sympathetic to strong refusal, even if it turned out to be the case that all the prominent arguments concerning the structure of justification were infected with the peculiarity of generality, it would at best be inductive evidence for the wrong conclusion. The proponent of strong refusal would maintain that arguments will be adduced which do not possess the defective property of generality.

Strong Particularism. Chisholm remarked that epistemology is confronted with two questions: “‘*What* do we know?’ and ‘How are we to decide, in any particular case, *whether* we know?’” (Chisholm 1966: 56). The famous problem of the criterion is that if we have no answer for the first question, we cannot answer the second and that if we have no answer to the second question, we cannot answer the first (Chisholm 1966: 56). Methodists try to solve the problem of the criterion by beginning with an answer to the second question while particularists try to solve the problem of the criterion by beginning with an answer to the first question. Particularists emphasize the priority of epistemological facts in theory construction. In the context of the debate concerning the structure of justification, the facts would be all items of knowledge and the competing methods would be the competing structural theories.

Let us just state the relevance of Chisholm's remark. The strong particularist could maintain that the data, i.e. all our items of knowledge, including the peculiar result of generality, are prior to theory and that one should simply stop at – or cannot go beyond – the data. Because the data is the totality of data supporting competitive structural theories of justification, the strong particularist takes the feature of generality as evidence for the claim that the data does not – and perhaps cannot – choose between the theories. Depending on the pervasiveness the feature of generality, the strong particularist posits that the data underdetermines – and may always underdetermine – which structural theory is the correct one. The strong particularist is therefore officially agnostic about whether there is a fact of the matter and, if there is a fact of the matter, which structural theory is the correct one.

Strong particularism is therefore a concession to iterative skepticism of a very special kind; that we cannot know that we know which of the structural theories is correct. But its concession does not end there. It refrains from comment about even first order structural-theoretic knowledge. It must so refrain precisely because it is officially agnostic about whether there is a fact of the matter. And there must be a fact of the matter in order for there to be a theory that correctly apprehends the structure our knowledge. Strong particularism is content with the whole of our epistemological data without the umbrella of a structural theory.

Theoretic Relativism. The theoretic relativist contrasts the particularist in holding that there is no fact of the matter concerning the correct structural theory. There may be various forms of theoretic relativism and it is, as such, difficult to articulate. But theoretic relativists might univocally hold that any structural theory can be adopted or rejected depending on one's background assumptions and commitments. The background need not even be epistemic.

Pragmatic concerns may require the adoption of a structure of justification in some instance and other, incompatible structures at other times. All would be equally epistemologically legitimate.

This is why skepticism, given a certain set of epistemic and pragmatic background commitments, the theoretic relativist might argue, can sometimes be as theoretically legitimate as it is theoretically illegitimate given other backgrounds. In those cases it is not simply that skepticism (or any structural doctrine) appears to legitimate in some cases and illegitimate in others, it *is*. The theoretic relativist might also posit that relativism explains why no structural theory has been adequately supported for the duration of the debate about the structure of justification; namely because the data cannot pick out what does not exist, just as one cannot offer genuine reasons in support for one's tastes (in matters of taste).

Theoretic Unity. Proponents of theoretic unity hold that there is a fact of the matter and the fact is that all structural theories of epistemic justification are correct. *Prima facie*, the unity thesis is incoherent because the three structural theories are defined as contraries. The unity theorist attempts to resolve the apparent conflict by positing that they are all correct because they are instances of a single, more general theory. For the unity theorist, foundationalism, coherentism, and infinitism amount to no more than different ways of expressing the same theory. If so, then our results should not be surprising and, in fact, one should expect that all cogent arguments concerning the structure of justification to be arguments susceptible to generalization.

The thesis of theoretic unity is not a new one. Sosa (1980; 2004) has argued for the unity of foundationalist and coherentist theories of justification. If one finds Sosa persuasive and infinitism as a viable option, one has adopted the unity thesis by default. Bergmann (2007) has

argued that Klein's solution to the regress problem⁹ presented by the ancient trilemma, which ultimately leads him to infinitism, isn't a genuine infinitism but rather a kind of foundationalism. Turri (2010a) has made the converse argument that Klein's solution to the regress problem can be adopted by foundationalists – and therefore coherentists since Klein accepts Sosa's claim that coherentism is a type of formal foundationalism.

Consider one possible specification of the unity thesis that all structural theories of justification are iterations of formal foundationalism.¹⁰ As we saw above, the epistemic justification possessed by a given belief supervenes on the relevant property possessed by that belief (Sosa 1980: 229 – 231). When a basic belief is justified, its property of being propositionally justified supervenes on property Φ . When a nonbasic belief is justified, its property of being propositionally justified supervenes on two properties: first, the property Φ possessed by basic beliefs and, second, the property of standing in the right kind of justificatory relation to basic beliefs.

The unity theorist might contend that coherentism is a formal foundationalism because the property of being propositionally justified supervenes on a very special specification of property Φ , namely the property of either a circular arrangement or, more likely, membership in a coherent set. In a sense all beliefs are properly basic. Similarly for infinitism, the property of being propositionally justified supervenes on the very special specification of property Φ , namely the property of membership in an infinitely long, nonrepeating series of reasons. If Turri (2010a) is correct in his contention that foundationalism can accommodate Klein's solution to the regress argument, then it seems that there are the makings of the case for theoretic unity.

⁹ Cf. Klein (2005) and Klein (2007).

¹⁰ It should be made clear that unity theorists are not committed to such a specification. They might hold that all theories are as much iterations of formal foundationalism as they are "formal coherentism" or "formal infinitism".

Pyrrhonianism. Ancient Pyrrhonianism was a type of skepticism that aimed at the achievement of suspension of judgment for any given matter of dispute by demonstrating the equipollence of two opposing accounts, theories, etc. (Sextus 2000: 4). Equipollence is a kind of evidentiary or argumentative deadlock, one in which the available data, reasons, justification, etc., underdetermines the competing accounts such that one cannot choose between competitors. Thus a Pyrrhonian suggests that the exhibition of generality in our sampled arguments is but a small data point in a well-documented history of philosophy.

The Pyrrhonian will hold that generality is likely a pervasive feature that infects all arguments such that for any argument concerning any structural theory, it can be generalized so as to neutralize grounds to support or reject the theory in question, thus moving us to equipollence. One possible explanation for this result, a Pyrrhonian might merely suggest with the faintest shrug, is because skepticism is true. Perhaps the Pyrrhonian does not advocate the thesis in earnest, but that is another matter entirely.

If generality is extremely pervasive, one might find it good evidence for skepticism. But this leads to a paradox – perhaps even the implosion of skepticism. This is the argument of Cruz (2010). But Pyrrhonians are unconcerned with paradox or implosion. Sextus Empiricus, for example, seems perfectly cognizant that skepticism implodes when he writes in his *Outlines of Skepticism*, “‘In no way more’ says that it too, along with everything else, is no more so than not so, and hence it cancels itself along with everything else” (2000: 6). Later he notes that “skeptics will perhaps be found to determine nothing – not even ‘I determine nothing’ itself” (2000: 49). Sextus remarks that this is a characteristic trait of all the skeptic’s arguments because

you should understand that we do not affirm definitely that they are true – after all, we say that they can be destroyed by themselves, being cancelled with what they are applied to, just as purgative drugs do not merely drain the humors from the body but drive themselves out too along with the humors (2000: 52).

Pyrrhonism is skepticism *par excellence*. It is the skepticism of Agrippa, the skepticism of the perennial challenge to the possibility of a structural theory of knowledge. If one opts for Pyrrhonism, one will have gone full circle: begin with the ancient trilemma; grapple with each horn of the trilemma and its consequences; consider foundationalism, coherentism, and infinitism; stumble upon argumentative generality; end with equipollence. Perhaps the ancient trilemma is little more than a clever trap that is no more than a distraction, allowing the Pyrrhonians to corner their prey before the fatal strike. If so, then the Pyrrhonian might tout the emergence of generality as the death knell for foundationalism, coherentism, and infinitism.

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