Reason and Religion

Two questions immediately demand our attention: *What is the nature of reason? What is the nature of religion?* Answering the first question takes up section 1 below (the nature of reason), and in section 2 I deal with the nature of religious faith. In section 3, I consider four competing models of the relation between reason and faith: faith as involving an application of reason to belief, faith as an enhanced form of rational belief, and faith as at least partly independent of rational belief, and faith as wholly irrational belief. These all concern the question of how, if at all, religious faith is grounded in reason. In section 4, I examine the question of whether reason might be in some sense grounded in faith.

1. What is Reason?

Traditionally, the term 'reason' (*ratio* in Latin) has been used to refer to the capacity to draw inferences correctly and reliably. This narrow sense obviously applies not only to inferred beliefs but also to actions, where actions are thought of as products of practical reasoning (see 1.2 below). Rational belief 'aims' at the truth, while rational action at the good (or the good as apprehended by the agent). However, 'reason' has also been used more broadly, to refer not only to our capacity for reasoning but also to the sum total of all of our capacities to form beliefs and to act sensibly. Let's focus initially on reason as a natural faculty or capacity for reliably getting to true beliefs.

Alvin Plantinga (1993a. p. 195) has argued that mere reliability cannot be the standard of reason. It is easy to imagine someone who, by some fluke, acquires a capacity to form beliefs that are both reliably true and yet unreasonably believed. Suppose, for example, that a brain lesion gives me the capacity to form reliable beliefs about which numbers are prime. Until I can verify that the new capacity is in fact reliable, it would be unreasonable for me to place complete confidence in these hunches, however reliable they may in fact be. To be prima facie reasonable, beliefs must be formed and sustained by the proper functioning of our cognitive capacities.

A large part of this proper functioning of the mind seems to involve following appropriate rules or norms. There are at least three ways of thinking about the normativity of reason:

- 1. As analogous to the deontic principles of morality.
- 2. As analogous to the moral virtues.
- 3. As the proper functioning of a teleologically ordered system.

Deontic rules of reason would correspond to the rules of a sound deductive calculus (like modus ponens or reductio ad absurdum), or to the rules of induction, scientific methodology or Bayesian theory confirmation.

A virtue-based conception is certainly possible. Anthony Kenny (1992, pp. 6-8) proposed reason as an Aristotelian mean between skepticism and credulity, and John Henry Newman (1985) proposed that there is an *illative sense*, as the theoretical counterpart to Aristotle's *phronesis* (practical wisdom). Such intellectual and cognitive virtues involve a sort of know-how: knowing how to form and to modify beliefs and intentions. (See also Sosa 1991 and Zagzebski 1996.)

The notion of the proper functioning of our cognitive faculties has both a naturalistic and non-naturalistic version, exemplified by Ruth Garrett Millikan (Millikan 1984) and Alvin Plantinga (Plantinga 1993b).

The three kinds of norms can be inter-related, and perhaps even reduced, to one another. For example, one might take deontic principles to express the definition of virtuous behavior, either reducing principles to virtue or virtues to principle, or one might take both principles and virtues to be grounded ultimately in teleological proper functioning.

Norms can be moral, prudential or epistemic. It seems that being rational in respect of thought or belief consists in conforming to or following the peculiarly *epistemic* norms of thought, while in the practical sphere, rational action consists in conformity to norms of prudence. Moral norms, if relevant at all to rationality, do not seem to be constitutive of the norms of rationality. In fact, the two dimensions of normativity seem to be mutually independent: a belief or an action might be rational and immoral, or moral and irrational. W. K. Clifford (Clifford 1879) argued that the latter case is impossible: that we have a moral obligation to follow all epistemic norms in our thinking. However, there seem to be a number of plausible exceptions to Clifford's rule, as William James pointed out (James 1979).

1.1 Theoretical and practical reason

Beliefs and actions are necessarily connected (Swinburne 1992, pp. 8-13). Rational agents will act in such a way as to maximize their chances of achieving a desired outcome (in the absence of competing desires). A popular model for encapsulating this connection is that of the norm of maximizing expected utility. The so-called Dutch book theorems reveal that any coherent agent must be representable as maximizing expected utility in accordance with a consistent system of preferences and a set of probability judgments that conforms to the classical probability calculus (with, as we shall see, the possible exception of the Archimedean principle). (Ramsey 1931) Can preferences or values be irrational, or is irrationality assignable only to judgments of "fact"? Intransitivity of preferences leads to incoherency: e.g., preferring ham to bacon, bacon to sausage, and sausage to ham. In addition, some preferences seem absurd *materially* and not just formally. Consider David Hume's hypothetical man who prefers scratching himself (even in the absence of an itch) to any other outcome, or Anscombe's example of man wanting to eat sand (for no particular reason). Preferences ought to guide us toward outcomes that are objectively superior – towards states of human flourishing. Thus, we can ask whether the preferences embodied in religious activity (or in refraining from such activity) are themselves reasonable, a question that forces us to consider whether salvation (as conceived by one religion or another) is a central component of human flourishing.

These reflections on maximizing expected utility and its justification lead naturally to a further question: Do preferences or subjective probabilities obey Archimedes' principle? That is, can there be infinite ratios in the values of our utility or probability functions: relatively infinite utilities, or infinitesimal probabilities? The Dutch Book arguments by themselves provide no reason why not, and there are many examples (drawn from both religion and secular life) that suggest that a rational agent might well be representable by hyper-real valued probabilities and utilities. Graham Oppy (Oppy 2006) suggests that we have some reasons to doubt this, based on certain paradoxes involving infinite sums of the value of possible outcomes. However, non-Archimidean (infinite) differences in values and probability are not needed to generate these paradoxes. Consequently, it is not clear at this point whether paradoxes involving infinite sums of finite measure provide good grounds for being skeptical about relatively infinite measures. (See Robinson 1966, McClennen 1994, Herzberg 2011, and section 3.3 below.)

1.2 Reason as it pertains to Thought and Belief

Let's focus in this section on reason as it applies to thoughts, beliefs and other purely cognitive states and acts. If we think of reason as one of our faculties for forming, sustaining and modifying beliefs or for acquiring knowledge, we have to consider the question of what other cognitive faculties do we have. Which of these faculties, if any, are excluded by talk of human "reason"?

Since the individuation of such faculties and capacities is difficult, we could take 'reason' to represent the human capacity for knowledge, incorporating the right use or exercise of all of our cognitive powers. This has its drawbacks: we will, for instance, have to take having 20/20 vision as a norm of 'reason' in this broad sense. However, it is difficult to exclude the nature of the "given" (sense data and the deliverances of memory and introspection) entirely from an inquiry into reason. We can classify someone as *unreasonable* on the basis of a poor fit

between a person's sensory beliefs and the actual environment: one who perceives inanimate objects as animate, or vice versa, for example.

In a similar way, one whose a priori judgments deviate wildly from the truth is in the grip of a form of irrationality. A systematic misjudging of the probabilities of possible hypotheses provides another example, although this case has been disputed by subjective Bayesians, who suppose that any logically coherent set of judgments about the prior probabilities of hypotheses are equally rational. Philosophers as diverse as David Lewis and Richard Swinburne disagree, taking rationality to require a certain bias toward simpler hypotheses, since without such bias, no induction can be rationally justified.

1.3 Self-evidence and the Evident

Reason in the broad sense governs not only inference but also the acquisition and retention of non-inferred or *basic* beliefs. A basic belief that is rational (for a given person in a given condition and circumstances) can be called 'properly basic' or 'evident'. Are there criteria for proper basicality? Following Descartes, we might suppose that a belief is evident if and only if it is indubitable (for the person in that condition and those circumstances). Let's call this the 'indubitability theory' of the evident.

However, this Cartesian standard is neither a necessary nor a sufficient condition for proper basicality. If one's faculties are malfunctioning (e.g., one is in the grip of an irresistible delusion), a belief may be subjectively indubitable and yet not objectively evident. Conversely, there are many beliefs (of the sort noted by Wittgenstein, Kenny and Plantinga) that are properly basic and yet potentially dubitable, such as Wittgenstein's belief that his name is 'Ludwig Wittgenstein'. (Wittgenstein 1969, pp. 96-9; Kenny 1992, pp. 21-3; Plantinga 1983, p. 60). Such beliefs are dubitable and yet if if seriously questioned would bring down the whole framework of one's view of the world, rendering any question of justification moot.

In addition, as Plantinga has argued (Plantinga 1983, pp. 60-1), the indubitability theory of the evident obviously does not pass its own standard for proper basicality. It is psychologically possible (at least for many people) to doubt or even to disbelieve in that standard. Hence, an indubitabilist may not consistently believe in that standard without adequate proof or evidence. But what sort of evidence could be provided? It is not provable from universally accepted principles of logic or mathematics, nor is it empirically verifiable.

1.4 Meta-Epistemology: How do we know what is Reasonable?

Finding criteria for evident beliefs is part of a much wider problem: the discovery of general principles of epistemology. It may be that this quest is quixotic: perhaps the truths about epistemology are analogous to those of ethics as conceived of by a moral particularist like Jonathan Dancy (Dancy 2004). Do we have good reason to believe that every fact about the reasonableness or unreasonableness of a belief or action deducible from some general laws? An epistemological particularism that denies such general principles might be an attractive option for a certain kind of fideist, such as Kierkegaard, who seems to identify 'objective' reason with deducibility from *general* principles.

There are four possible sources of information about epistemology: selfevidence, the phenomenology of intrinsic certainty, induction and analogy from agreed-upon cases, and the scientific or metaphysical (and perhaps even the theological) investigation of the human mind and its workings.

1. Are all the principles of reason self-evident? In other words, if P is a true principle of epistemology, does everyone who understands P believe it (self-evidence)? The answer seems to be No: most, if not all, principles of epistemology are controversial to a degree that seems incompatible with self-evidence. Even a principle as fundamental as the law of non-contradiction has been rejected.

2. Do all the principles of epistemology appear intrinsically certain? Some appear to be certain to many people. Once again, there are few principles that seem certain to everyone. In addition, we know that this appearance of certainty is not infallible, as the example of Frege's naïve set theory (which seemed certain to Frege before it was proven to be inconsistent). Thus, it appears that epistemology cannot be a purely formal or a priori science.

3. Induction and analogy are useful methods, as the work of Thomas Reid or Roderick Chisholm demonstrates (Chisholm 1989). This method prescribes first collecting a large sample of paradigmatically reasonable and unreasonable beliefs and then looking for simple generalizations. The generalizations can then be tested against further intuitions about the reasonableness of test cases.

However, there is no guarantee of unanimity in results, when epistemological investigators do not fully agree on the initial data. Controversies about the data are frequently the case in many disputes over the rationality of religious belief. Some religious believers, like Alvin Plantinga (Plantinga 1982) or Austin Farrer (Farrer 1966), will take some cases of basic religious belief as paradigms of rationality, while agnostic philosophers, like Antony Kenny or Anthony Flew (Kenny 1992, Flew 1976), will take the same cases as paradigmatically irrational.

4. Finally, we can turn to the scientific and metaphysical investigation of the human mind as a source of information about what would constitute the proper functioning of our cognitive faculties. This was the Aristotelian method, and it has also been adopted by Darwinian epistemologists, like Ruth Millikan. As these examples demonstrate, the epistemological conclusions reach will depend on features about the large-scale theoretical framework in place. Once again, we can expect large differences in results from theists and from naturalistic epistemologists, reflecting differences in philosophical anthropology. Theists, for example, will naturally attribute the formation of religious beliefs in a wide range of situations as the normal functioning of a sensus divinitatis (a natural sense of the divine, in Calvin's terminology), while naturalists might attribute the same beliefs to defects or 'design' imperfections to be expected in the jury-rigged products of natural selection. Consequently, atheists and religious believers of various kinds are going to have varying conceptions of the reasonable, based on different conceptions of the origin and purpose of human faculties, different experiences of the apparent certainty of religious propositions, and different sets of paradigm cases of the reasonable and the unreasonable.

It is possible that cognitive psychology provide information that would provide decisive evidence against the optimistic theistic hypothesis, if (for example) it could be shown that religious beliefs are invariably the product of mental disease or other malfunctioning. See section 3.4 below.

We might appeal at this point to some sort of peer disagreement constraint: we should not posit any standard of reasonableness to which any of our "epistemic peers" dissent, in effect lowering our standards to the greatest common denominator.

Peer Disagreement Principle: something cannot be a general truth about the extension of the term 'reasonable' unless it follows from an epistemological theory that would be embraced by everyone in our peer group, given access to all available evidence and arguments.

Recalcitrant dissent from any peers would be sufficient (given PDP) to falsify a proposed rule of reason. Who is the relevant "peer" group? All human beings? All who are sane and competent? All who are fully rational? This last answer would reduce the PDP to a mere tautology, and yet it seems obvious that any other answer will deliver rational constraints that are far too weak.

In addition, and far more devastating, the Peer Disagreement Principle is selfdefeating, so long as it is resolutely rejected by any of our peers, as indeed it appears to be. Consequently, we are all inhabitants of a "raft" of beliefs, as described by Otto Neurath (Neurath 1983, p. 92). Epistemology cannot be prior to the rest of our beliefs but must draw on philosophy, science, common sense, and even theology or its denial (as the case may be). A certain kind of circularity, not in reasoning but in the relation between epistemology and the rest of our beliefs, is a deep-seated feature of the human condition, as characteristic of naturalists as of theists.

1.5 Does it matter whether Reason and Religion are in Conflict?

Suppose that all religious belief were epistemically flawed, a failure to achieve knowledge or even warranted belief. Assume also that all religiously motivated action were irrational, because based on irrational beliefs or preferences. Couldn't religion still be, at least on balance, a good thing? All of these assumptions are compatible with any particular religion's being true and really offering a road to an overriding good (salvation) for its practitioners.

This would be a problematic hypothesis for theistic religions: for those religions that hold that human beings and their environment was designed and created by good and wise God, the same being who acts as the author and principal agent of salvation. Why would such a God make even the partial destruction of created human faculties a necessary condition of salvation? Doing so would seem radically incoherent on God's part.

Such extremely anti-rational fideism would seem to be consistent with Manichaeanism (the view that the savior god was not our creator), but no modern world religion is Manichaean.

Even for non-theistic religions, the case for religion (on these suppositions) will be effective only in the case of damaged human beings, and even then, only to human beings whose rational capacities are damaged in very specific ways. Even Pascal's wager would not apply, since, if successful, it validates the practical rationality of religious action. So, there would seem to be good reason for defenders of religion to defend its rationality.

2. What is Religious Faith?

Faith is whatever internal state is required for genuine religiosity. A religious life consists in some external and internal actions, undertaken for specifically religious motives, that is, in pursuit of some kind of "salvation" or "blessedness" for oneself and others. This "supernatural" end must consist in some good that is not constituted in the normal way by mundane conditions, such as pleasure, survival, or the successful completion of other spacetime-bounded activities.

2.1 Belief and Religious Faith

Every religious tradition corresponds to some body of propositions, whose truth is in some sense assumed or presupposed by those who act in accordance with the religion's precepts and recommendations.

An internal condition of faith is needed to distinguish genuine from feigned or hypocritical religiosity. The presence of such genuine faith turns not on degree of belief in the propositions making up the religious tradition, but on one's motives or reasons for acting. One who acts piously out of a desire to obtain "salvation" (as defined by a religious tradition) for oneself or others is genuinely pious or religious, whether or not the faithful person *believes* the body of propositions defining the tradition.

However, belief is not entirely irrelevant to such genuinely religious action. There is a necessary connection between belief and action – belief is essentially action-guiding, and human action is essentially rational. Faithful people must at least believe that salvation is an epistemic possibility: they must not take such salvation to be certainly unattainable. They must also believe that the actions recommended by their religion make salvation more and not less likely. Richard Swinburne describes well the subtle relation between the religious believer and his beliefs:

"He prays for his brethren, not necessarily because he believes there is a God who hears his prayer, but because only if there is can the world be set right. He lives the good life not necessarily because he believes that God will reward him, but because only if there is a God who will reward him can he find the deep long-term well-being for which he seeks." (Swinburne 1981, p. 117)

2.2 Modes of Belief and Acceptance

Since rationality applies to belief and similar cognitive states, something has to be said by way of a taxonomy of such states. In particular, a number of philosophers have proposed that there is a fundamental distinction between beliefs and acts of *acceptance*.

Non-linguistic animals seem to be guided by beliefs or belief-like states. Scholastic philosophers talk of such animals' having an 'estimative power' that is analogous to human reason: a kind of natural attunement of their nervous systems to their environment via their senses and memory. The American philosopher George Santayana (1955) spoke of certain human beliefs as instances of "animal faith". Explicit human judgments seem to lie within a "space of reason" (to use John McDowell's phrase), as opposed to the "space of causes" within which are located instances of animal faith (McDowell 1996). Human judgments are subject to rational norms, in the first and second senses discussed in the previous section: deontic rules and the standards of the intellectual virtues, in a way that the implicit representations of animal faith are not.

Both animal faith and intellectual judgment can be a matter of degree, corresponding to different degrees of certainty or probability, but in different ways. We can measure the degree of certainty corresponding to some tacit representational state by assuming that it will normally interact with the degrees of belief in other states and degrees of desire in order to produce decisiontheoretically coherent action (immune to Dutch books). In the case of explicit judgments, the probability is part of the content of the judgment, rather than an aspect of the strength with which the representation is embraced.

There are good grounds for at least a two-way distinction among kinds of affirmative cognitive states: animal belief and explicit judgment. Is there a third category: states that are involuntary, potentially implicit and dispositional, and yet firmly within McDowell's space of reason, subject at least to the norms associated with proper functioning and with the intellectual virtues? Many philosophers, including Richard Swinburne and Bernard Williams, have defended the existence of such involuntary and yet rational states. For the sake of clarity, I will use the term 'animal faith' for the sub-rational representational state, 'belief' for a state that is rational but involuntary and potentially tacit, and 'acceptance' for the act by which one makes a voluntary and rational commitment to the truth of a proposition.

Bernard Williams has argued that all belief-like states must be involuntary, leaving no room for the category of acceptance. ("Deciding to Believe," in Williams 1973, pp. 136-51.) According to Williams, any state like belief must, by its very essence, be aimed at the truth. Consequently, one cannot coherently choose to believe that p without aiming thereby at the truth, which would mean that one already (prior to one's decision) believed that p to be the truth. Similarly, one cannot choose to believe a proposition with a subjective probability other than that proposition's subjective probability prior to one's decision.

Nonetheless, Michael Bratman (1992) has argued convincingly for the need for a distinction between belief and acts of acceptance (Bratman 1992, Levi 1966, Cohen 1992, and, for a dissenting view, Moore 1994). Bratman offers five cases in which it makes sense to accept a proposition one does not yet believe:

1. To simplify our reasoning. When we engage in practical reasoning, it is not always cost-effective for us to take into account events of extremely small probability, nor can we effectively compute the conditional probabilities needed to assess the chances of complex conjunctions. To simplify these processes, it makes sense simply to accept as true propositions with very high subjective probability.

2. To deal with asymmetries in the cost of error. In some cases, the costs of being wrong in one way are much higher than the costs of any alternative belief. In other words, it may be very costly to believe not-p when p is true, but not costly at all to believe p when not-p is true. In such a case, it may make sense to accept that p, even if the probability of p is far below ½. For example, consider the proposition that I'm not a brain in a vat. If I am a brain in a vat and wrongly believe myself not to be, the error is not very costly, since my prospects for controlling my fate or increasing my stock of knowledge are very meager if I'm merely a brain encased in a vat. Conversely, to believe that I am a brain in a vat if I am not is extremely costly, both in terms of successful action and the acquisition of further knowledge.

3. Needs of social cooperation. When several agents must collaborate in their deliberations and decisions, it is essential that they operate on the basis of a stock of assumptions that are common knowledge among them. It can be rational for an agent to accept the entire body of common-ground assumptions, even if some are not believed with certainty to be true.

4. Special relations to others, such as moral obligations to believe others. Relations of loyalty and gratitude, including bonds of friendship and partnership, may entail a commitment to accept the other's trustworthiness and truthfulness even in the face of plausible doubt. One should, at least to some extent, discount evidence against one's friends' trustworthiness, even when the evidence would be conclusive in the case of those to whom one lacks such a bond.

Van Fraassen (van Fraassen 1981) gives us a fifth reason: the need to maintain probabilistic coherency while recognizing our own fallibility. Our actions will be probabilistically incoherent (subject to "Dutch strategies") if we assign any finite probability to the possibility that we might rationally come to accept something as evidence that is false. Van Fraassen suggests that the only way to escape this incoherency without an insane level of confidence in the infallibility of human reason is to employ voluntary acceptance in place of involuntary belief: we accept that everything we will rationally accept will be true, while believing that this must happen with less than perfect confidence. Probabilistic coherency is maintained by committing ourselves to our own future commitments.

Although Swinburne does not accept the belief/acceptance distinction, he does provide a sixth reason for distinguishing an acceptance-like state from the state of assigning a high probability to a proposition. According to Swinburne, we can be said to "believe" a proposition so long as its subjective probability for us is higher than that of the relevant alternatives (Swinburne 1981, pp. 3-8). If there is more than one relevant alternative, this makes 'belief' or 'acceptance' in this case consistent with a probability of less than ½.

We cannot simply identify accepting a proposition with its having a high degree of subjective probability. First, a proposition can have a high degree of probability without being acceptable, as the lottery paradox demonstrates: that any ticket will lose is highly probable, yet one cannot reasonably accept that it will lose, since this would involve acting in a way that ignores the very real probability that it might win. One cannot even identify acceptance with a subjective probability of 1, since there can be real possibilities with a probability of zero. For example, the probability that a dart with an infinitey fine point will strike any given point on the target is zero, despite the fact that it must strike some point. Introducing infinitesimal probabilities does not help, as Alexander Pruss has recently demonstrated. (Pruss 2012)

Each of these six cases of rational acceptance without belief is relevant to religion:

1. If all of one's decisions are guided by the assumption of the truth of religious framework, continuing the internal representation of that assumption as uncertain would be otiose and a waste of scarce cognitive resources. Better simply to accept it and employ it without qualification in one's decision making.

2. Asymmetries in the cost of error correspond to Pascal's wager (Pascal 1961): to fail to believe in God given God's existence is far costlier than to believe in God given His non-existence. (See section 3.3.)

3. Since religion is typically a social enterprise, it makes sense for individual believers to embrace the comprehensive 'creed' or doctrinal standards of a group, even if that believer finds some of the tenets of the creed to be uncertain, so long as the creed as a whole is more likely to be true than the comprehensive doctrines of the available alternatives.

4. Loyalty to one's tradition, family, and benefactors is relevant to the rationality of accepting religious teaching. This could include faith in the testimony of others concerning their religious experiences, both ordinary and extraordinary. The importance of such loyalty is greatly heightened when one believes that these witnesses are deputized messengers of God, such that to mistrust them is to mistrust God.

5. Coherent religious action requires a firm commitment to fulfill one's commitments to the truth of the propositions of faith, come what may.

6. A believer may accept his tradition as the most likely of the available alternatives. Religion can be a 'forced choice', to use William James's language. Since life is short, we cannot indefinitely postpone a decision for or against a

religious life. If we do choose to embrace religion, we must choose among those communities and sets of practices that are in fact available to us. It is most cases a practical impossibility to hedge one's bets by participating in several religions at once. Consequently, it makes sense to accept the theological framework of whichever is most likely to be true.

According to Bratman, acceptance is context-dependent: it is possible to accept the proposition that p in one context, in relation to one set of activities or projects, while not accepting it in other contexts. This context sensitivity does not seem to be possible in respect of religion: one whose religious commitments were context-sensitive in this way would be rightly characterized as being hypocritical or having only a feigned faith. However, there are reasons to think that the acceptance of a religious framework for one's life would be independent of context, embracing all of life. For most religions, the pursuit of salvation incorporates all other activities, in many cases by providing new motives for doing what one would have done anyway, but in some cases by insisting upon new and untrumpable demands.

3. Four Models of the Relation between Faith and Reasonable Belief

3.1 Faith as an Instance of Reasonable Belief

The simplest positive model takes religious faith to be simply the result of applying our ordinary rational faculties to the question of the truth of the crucial theological propositions. For example, C. S. Lewis defines the virtue of faith as nothing more than perseverance or stick-to-it-iveness:

"Now faith is the art of holding on to things your reason has once accepted, in spite of your changing moods." (Lewis 1943, p. 123)

Similarly, Richard Swinburne takes inquiry into religious matters to be closely analogous to theory choice in science (Swinburne 2003, 2004). This evidentialist approach can also be seen in the recent revival of interest in the design argument, especially with reference to the "fine-tuning" of cosmological and physical constants for life and with reference to the origin of life itself (see Manson 2003 and Murray 1998), and in first-cause cosmological arguments (Koons 2001, 2008 and 2012, O'Connor 2012, Pruss 2006).

These arguments involve a variety of modes of reasoning: deductive, Bayesian, and defeasible. Theists adopting this model typically complain that agnostics (like Mackie 1982, Sobel 2004, and Oppy 2009) are guilty of special pleading or under-generalization, refusing to apply to theological questions those general principles (such as causality, the principle of sufficient reasoning, or inference to the best explanation) that they apply unquestioningly to other matters.

Kelly Clark (Clark 1990) has argued that theistic appeals to argument result in what could at best be described as "person-relative" proofs, since they fail to persuade such intelligent and well-informed dissenters as Bertrand Russell or J. L. Mackie. In so arguing, Clark makes a tacit appeal to the peer disagreement principle, which we saw reason to reject above. A proof may be sufficient to compel all perfectly rational persons to assent, even though it fails to secure unanimity in the real world, since intelligent, well informed and well intended people may still fall short of perfect reasonableness (defined as perfectly proper functioning of the relevant faculties).

It is also possible for adherents of this model to take many religious beliefs as reasonable in the absence of any inference: as properly basic. A properly basic belief need not be groundless: it is part of the proper functioning of the human mind to form certain beliefs only in the context of appropriate kinds of experience or testimony. As Swinburne has argued, reason seems to support a principle of credulity applied generally to experience: experiences involving the appearance as of the fact that p licenses the formation of properly basic belief that p (Swinburne 2004, pp. 303-322). Religious experiences, both ordinary and extraordinary, often present the appearance of the presence of God. Such a principle of credulity can also be applied to to testimony about the religious experiences of others.

This approach does, however, face the difficult problem of conflicting experiencereports from adherents of different faith traditions. Reports that contradict one another or that contradict the content of one's own religious experience are rational defeaters of the basic belief that would otherwise be proper, resulting in a diminution of probability or the contraction of belief to some greatest common denominator. Peer disagreement also weakens the credibility of theistic arguments, unless one has independent grounds for discounting the rationality of the unconvinced.

Other critics of the simple model (such as Bishop 2007 and Moser 2008) argue that it fails to take into account that God may deliberately "hide" His existence from the disinterested inquirer who has no intention of submitting to God's authority, since to providing such explicit knowledge would only compound the unbeliever's alienation from God. Instead, God is interested in bringing about knowledge of His existence and nature only on terms that promote our spiritually valuable fellowship. Such life-transforming knowledge of God would be a form of knowing by doing (knowledge through active discipleship), as opposed to the knowledge of a passive spectator. In addition, as John Hick argued (Hick 1966), God's placing Himself (at least initially) at some 'cognitive' or 'epistemic' distance from us may be essential to our development as free and autonomous centers of action.

3.2 Faith as Enhanced or Restored Rational Belief

The second model sees faith as a result of a specialized form of reason, especially adapted to the task of forming accurate religious belief, as opposed to the result of applying generic, content-independent principles of reason. A model of this sort has been defended historically by John Calvin and John Henry Newman (Newman 1985) and most recently by Alvin Plantinga (Plantinga 1983 and 2000). The religious restoration of reason can take two possible avenues: enhanced capacity for properly basic beliefs (Plantinga 2000, Alston 1993) or enhanced capacity for inferences about religious matters (Newman 1985, Farrer 1964, Evans 2010).

On this second model, the existence of both unbelief and conflicting religious beliefs can be explained by reference to the cognitive or 'noetic' effects of sin (including "original sin", the supposed inherited effects of the impiety of past generations). Spiritual regeneration through participation in repentance and participation in the practices and sacraments of the true faith effect a restoration of perfect rationality, giving believers in it access to knowledge unavailable to unbelievers.

The existence of religious pluralism, that is, the co-existence of conflicting claims to such privileged knowledge, has often be taken as providing a powerful challenge to the second model (see Kraft 2007). Such a challenge depends once again on an appeal to the Peer Disagreement Principle, arguing that the members of one tradition cannot claim privileged access to rational insight so long as epistemic peers in other traditions make contradictory claims. However, the defender of the second model can always dispute the assumption that participants in other traditions are in fact epistemic peers (Koons 2006). The apparent 'circularity' of such a judgment is no indictment of this model, since all epistemologists must inescapably make controversial judgments about who counts as their peers.

3.3 Faith as Partly Independent of Rational Belief

In the first two models, the religious believer comes to be certain of the core propositions of the faith, with a subjective probability of 1 or nearly one. On the third model, perfect faith is compatible with uncertainty, possibly even with a low subjective probability. The lower the probability that must be assigned to the creedal propositions for genuine faith to exist, the lower the epistemic standards concerning evidence for those propositions that must be met to secure the rationality of faith as a venture. The third model corresponds to what John Bishop has called a 'doxastic venture':

"To take a doxastic venture is to take a proposition to be true in one's practical reasoning while recognizing that it is not adequately supported by one's total available evidence." (Bishop, 2009, p.9)

Thomas Aquinas defended an early version of this venture model. Aquinas distinguishes between 'living' and 'lifeless' faith. (Aquinas 1947-48, II-II q5 a2) Lifeless faith in doctrinal propositions requires a high degree of certainty, grounded in virtually undeniable signs of divine sanction. However, in the case of living or meritorious faith, the intellect is moved by the will to accept the revealed, as the will is moved to knowledge of and unity with God as the ultimate good. (Aquinas 1947-48, II-II q1 a4) In other words, the believer is moved to believe in the doctrines of the faith as the means to an end of supreme value. So long as faith in some particular form is the only or the most likely means to that end, it is rational to believe the corresponding doctrines, even if there is a significant chance of error. Aquinas's definition of faith does not entirely disengage faith from evidence, however: there must be "weighty" if inconclusive grounds for believing the doctrines to be true. (Aquinas 1947-48, II-II q2 a9)

Pascal's wager is another version of this model. In the *Pensées*, Pascal spends a great deal of time and effort providing what he saw as "weighty" reasons for believing in the existence of God and the truth of Christianity, but he concluded by arguing that asymmetries in the cost of error can make it reasonable to pursue faith wholeheartedly even in the presence of considerable uncertainty. Pascal's wager can be given an entirely epistemic application, in the spirit of Isaac Levi's model of the rational pursuit of truth. (Levi 1967) It is rational to accept a proposition if by doing so one increases one's chances of maximizing one's total body of knowledge.

Pascal builds his argument around the claim that religion offers goods of infinitely greater value than competing ends. The argument doesn't require that we take this claim literally: so long as the difference between the value of salvation and the value of secular ends is of an order of magnitude greater than the size of the gap between the probability of the truth of the relevant theological proposition and absolute certainty, the greater size of the payoff will overwhelm the effect of the uncertainty.

In addition, the hypothesis that some outcomes may be subjectively of infinitely greater value to a rational agent is quite defensible. Frederik Herzberg has recently proved a representation theorem, demonstrating that a coherent agent with preferences over lotteries involving infinitesimal probabilities has a utility function that can be represented uniquely by means of Robinson's "hyperreal"

analysis (Herzberg 2011, Robinson 1966). Ratios of such hyperreal utilities can be infinitely great or infinitely small. Adopting such a model does force us to give up one claim that Pascal made: that adding a finite value to an infinite one makes no difference (Pascal 1961. p. 155). Hyperreal analysis requires that adding a finite number to an infinite number always results in a strictly greater number, and that multiplying an infinite number by a number less than 1 always results in a strictly lesser number. However, Pascal's assertion to the contrary is required neither by his theology nor by the logic of his argument.

Søren Kierkegaard's notion of infinite passion can provide the basis for further development of the third model. Kierkegaard suggested that the believer's infinite passion for union with God can overcome objective uncertainty about the truths of religion. Infinite passion consists in recognizing and responding to the infinitely great value of the supernatural good offered the believer. In Fear and Trembling (Kierkegaard 1983), Kierkegaard added to the model the 'second movement' of faith: its return to the world of mundane affairs, providing to each mundane decision a new layer of infinite significance in light of one's individual vocation from God. Every mundane choice takes on (on the assumption that God exists) infinite significance as an opportunity to move toward or away from harmony with God. As I have argued (Koons 1993), this reflection of faith into everyday life ensures that all *differences* in value between the possible outcomes of my choices are infinitely magnified on the supposition that God exists. As a result, the believer can safely ignore the possibility that God does not exist, no matter how likely that might be, so long as the existence of God have a finite, non-zero probability of truth. Thus, Kierkegaard, unlike Pascal, does not offer an argument based on infinite utilities for *seeking* faith: he offers a model according to which one with the right structure of infinite utilities *already has* faith. A Kierkegaardian utility function results in rational action that is indistinguishable from the action of one who judges the propositions of faith to be certain, even if the agent's actual probability for those propositions is quite low.

Once again, the skeptical hypothesis of envatted brains illuminates the argument. If my concerns are infinitely magnified on the supposition that what I perceive is real (including real family, friends, and worldly accomplished), then it is rational for me to act in all cases as if I were certain that the skeptical hypothesis is false, however uncertain I am about its truth.

3.4 Faith as Irrational

Following Plantinga (2000, pp. viii-ix), we can recognize two kinds of objection to religious faith: de facto and de jure. A de facto objection is an argument for the falsity of some central proposition upon which faith depends. A de jure objection is an argument to the conclusion that faith is irrational, regardless of the truth or falsity of its central tenets.

De Jure Objections

No plausible charges of intransitivity in preferences have been made against religion. A critic of religion might charge that religious preferences are materially if not formally irrational, especially in their intensity with respect to supernatural and spacetime-transcending conditions. However, this charge depends on the falsity of religious doctrine: if the world really were as Christianity or other major religions paint it, the intensity of religious passion would be quite appropriate.

Other critics (Dennett 2007) suppose that successful scientific (naturalistic) accounts of religious belief provide undercutting defeaters of the rationality of religion: if religious beliefs and motives can be accounted for in terms of processes (neurological, biological or cultural) that make no reference to God or the supernatural, then it might be supposed to be irrational to maintain them. However, this argument underestimates the resources of a theistic metaphysic: if God exists and is responsible for creating and sustaining all natural processes, then no process is truly independent of God. The believer is free to take the scientific accounts of religious belief as merely providing more information about how God has revealed His presence to His rational creatures.

We must instead distinguish between pathological and non-pathological processes. If the scientific account of religion demonstrates one or more religions to be the result of what are unambiguously defective cognitive processes, processes involving injury or disease, then this result would provide an undercutting defeater. There is, however, little current evidence of such defeaters. In fact, religiosity is positively correlated with both mental and physical health (Levin and Schiller 1989, Ferraro and Albrecht-Jensen 1991, Matthews, Larson and Barry 1993, Larson and Larson 1994, Pargament 1997, Stark 2012, Rosmarin, Bigda-Peyton, Kertz, Smith, Rauch, and Bjorgvinsson 2013).

De Facto Objections

The most common de facto objections concern the so-called 'problem of evil': the apparent incongruity between the supposed existence of an all-powerful and all-good deity and the existence of moral evil and undeserved suffering. This objectoin only pertains to those theistic religions that do embrace all three elements (a loving and all-powerful God, and the real existence of suffering.) The argument from evil takes two forms: deductive and inductive. A deductive argument from evil, if successful, would provide a decisive objection to many forms of religion. However, such deductive arguments have failed to overcome the standard Free Will Defense (see Plantinga 1977).

In the case of inductive arguments from evil, the aim is more modest: simply to show that the existence of God is unlikely relative to the available evidence concerning evil and suffering. Defenders of theistic religion have five possible responses. First, they might offer a theodicy that purports to show that God's existence is not unlikely, given the existence of evil. Second, they might concede that the existence of evil lowers somewhat the posterior probability of God's existence but contend that the positive evidence and arguments greatly outweigh this effect. Thirdly, they might embrace the position of 'skeptical theism' (Bergmann 2001), arguing that we cannot reasonably make any estimates of the probability of any quantity of evil, on the hypothesis that God exists, because the factors and parameters of such a hypothetical divine choice are so far beyond our cognitive capacities. Fourthly, some theists will embrace the third model of the relation between faith and reason, affirming the rationality of religious faith despite the improbability of theism on the total evidence.

Finally, theists can argue that if the probability of God's existence is 1, or if religion is accepted absolutely, then probabilistic counter-evidence would be irrelevant (Plantina 2000, pp. 475-9). If God's existence is part of the background information upon which all probability judgments are predicated, then the proposition that God exists must always have a probability of exactly 1, no matter how much evidence we acquire that is unlikely on that supposition. However, if religious propositions have been accepted at least in part because of their high probability, either absolutely or relative to some alternative, then such probabilistic disconfirmation could be relevant.

4. Faith as a Ground and Guard of Reason

Up to this point, we have examined faith by the standards of reason, to see if religious faith can be understood as an exercise of reason. It is possible to turn the question around and ask whether reason involves an exercise of faith. In *Orthodoxy*, G. K. Chesterton argued that it does:

"It is an act of faith to assert that our thoughts have any relation to reality at all.... In so far as religion is gone, reason is going. For they are both of the same primary and authoritative kind. They are both methods of proof which cannot themselves be proved. And in the act of destroying the idea of Divine authority we have largely destroyed the idea of that human authority by which we do a long-division sum." (Chesterton 1983, 236-7)

We can ask, for example:

- Why trust our rational intuitions in philosophy?
- In particular, why trust our intuitions of rational normativity?
- Why trust our intuitions of truth in logic or mathematics?

- Why trust science? In particular, why trust in our ability to make reliable choices of theories and research programs?
- Why trust the senses, as reliable indicators about objective reality?

To take just one example, it is far from obvious that the senses can be relied upon to give anything like reliable information about an objective world, without presupposing some sort of theistic design. Modern science suggests that done of the 'secondary qualities' revealed in sense perception (color, smell, texture, etc.) correspond to real properties in the objects generating those perceptions. Why think that sensory impressions so pervasively permeated with fictional properties conveys any objective information? Confidence in human cognition depends on believing that the objects of perception have a natural propensity to reveal themselves to us as they really are, and that we have a natural propensity to receive their revelation, a pair of propensities that seems best explained as a divinely orchestrated harmony.

In addition, human reasoning (both deductive and inductive) seems to require some awareness on our part of the fact (assuming it is a fact) that our conclusions really "follow from" our premises. Without such awareness, at least tacit, there would be no difference between reasoning and mere free association, or between following the rules of good reasoning and merely conforming to a pattern. Thus, two facts are required for reasoning to be knowledge generating: there must be some norms of rationality, and we must be able to know what those norms are. If to accept the reality of such norms is to engage in an essentially religious practice, or if real knowledge of those norms is possible only for those embracing a religious faith, then reason itself would prove to be grounded in faith. I will briefly consider three arguments to this effect below: (1) an argument appealing to the truth-makers of rational and epistemic norms, (2) an argument analogous to Benacerraf's problem concerning mathematical knowledge, and (3) Plantinga's evolutionary argument against naturalism.

4.1 The Truthmaker for Rational Norms

What are the truthmakers for rational norms – that is, what in the world are they ultimately grounded in? There seem to be just four options: regularities in nature conceived of in non-teleological terms (without purpose or intrinsic end), social conventions, biological adaptation, or a set of sui generis normative facts. The first option has been widely criticized in contemporary analytic philosophy, from John McDowell (McDowell 1996) to Hartry Field (Field 2001, pp. 368-70; Koons 2003) and Thomas Nagel (2012, Chapter 4). It seems clear that mere psychological regularities cannot constitute rational norms, since there can be regularities that are irrational or rational norms that rarely if ever followed. This remains true even if we restrict our attention to regularities that are, as a matter of brute fact, reliably truth-producing. Genuinely rational norms would still be

rational even if there were not, in some possible world, truth-conducive, and irrational standards would be irrational, even if they did lead to truth.

Social conventions also fail as an adequate ground for rational normativity, for much the same reason. The rationality or irrationality of an inference is independent of whether inferences of that sort are sanctioned by society. No society, for example, can make an inconsistent set of logical rules normatively binding. Moreover, the intentionality of human thought presupposes the existence of rational norms, since it is only in relation to such norms that we can make the distinction between right and wrong applications of our concepts to particular cases (Koons 2010). Since social convention in turn depends on intentionality, we cannot provide a non-circular account of normativity in terms of convention.

More promising for the naturalist is the appeal to evolutionary history, as proposed by Ruth Garrett Millikan (1984). According to Millikan, rational norms are grounded in the proper functioning of our cognitive systems, and that proper functioning can be defined in terms of functioning in precisely those ways that enabled our ancestors to reproduce themselves successfully. Nonetheless, this account faces three serious challenges. First, like the first two, it seems to give the wrong answer in a wide range of possible hypothetical cases, as argued by Plantinga 1993b, pp. 199-210 and Rea 2002, pp. 113-127. For example, a population subjected to artificial selection by a vicious regime might acquire an evolutionary history according to which some obvious logical error, like affirming the consequent, contributed to the survival of its ancestors. Second, Jerry Fodor (Fodor 1992, pp. 51-88) has argued that natural selection is too blunt an instrument to make the kind of extremely subtle and fine-grained distinctions among the contents of our thought that would be needed to ground epistemic norms. Finally, a biological approach to human proper functioning would have to take a strongly realist position on the existence of macroscopic objects (like people) and macroscopic phenomena (like human action) that is inconsistent with the thoroughgoing micro-physicalism inherent in materialism (Koons 2010). In addition, Millikan's account presupposes that properties like reproduction and survival can be reduced to non-teleological terms, which seems improbable. Successful reproduction requires the generation of a new entity with the same repertoire of proper functions.

If rational norms are sui generis facts, then devotion to reason is a form of religious faith – submission to super-human, super-natural authority, a point that has been made by Augustine of Hippo (Augustine 1964, pp. 49-68), Anselm of Canterbury (Anselm 1998), and G. K. Chesterton.

4.2 A Benacerraf-Style Argument for Reference and Knowledge of Norms

Moreover, if the norms of rationality are sui generis facts, distinct from the facts of the natural order, then naturalists face a grave difficulty in accounting for our knowledge of them (analogous to the problem of accounting for our knowledge of mathematical objects identified by Benacerraf in 1973). In response to the work of Edmund Gettier, epistemologists have come to recognize that more is required for knoweldge than internally justified true belief. Knowledge requires the right sort of connection between the belief and the fact that is known, a connection that involves some sort of causal relation. In most cases, the act of knowledge is partly an effect of its object (as in knowledge by sense perception, memory or testimony), in some cases the act and object are effects of a common cause (as when one knowingly anticipates an unperceived effect of something perceived), and sometimes the object is the effect of the act (as in executive knowledge: knowledge: knowing what one is doing). However, in each case some sort of causation is required.

A causal connection between the norms of reason and the human mind would require a supernatural cause: for instance, a creator and designer of humankind whose nature encodes the norms. At the very least, there must be some essentially rational power in the world that is responsible in part for human cognitive dispositions. If human beings were part of a world that is causally closed and fundamentally non-rational in nature, then knowledge of the norms would be impossible. (See also Hasker 1999, pp. 6-73; Willard 2000; Reppert 2003; Nagel 2012, Chapter 4.)

The case of theory choice in science provides another argument for a supernatural cause, as I argued in Koons 2000. Theory choice in science (especially in fundamental physics) involves a pervasive preference for a certain kind of simplicity or elegance, an aesthetic value. For scientific knowledge to be possible, this preference for simplicity must be reliably truth generating. However, simplicity can be reliable as a guide to the truth only if there is some mechanism ensuring a real bias toward simplicity of the right kind in the actual laws of nature. Such a mechanism would have to be a cause of the laws' being as they are, but since the fundamental laws of nature pervade the natural order, a cause of the laws would have to be supernatural.

4.3 Plantinga's Defeater Argument against Naturalism

Plantinga's evolutionary argument against naturalism (Plantinga 1993b, chapter 12; see also Beilby 2002) can also be turned to defeat any naturalistic claim to know the norms of reason. Anyone who denies that human beings are designed must rely solely on natural selection to explain our complex natural abilities, including our innate cognitive capacities. Natural selection is concerned only with fitness for reproduction: it is completely indifferent to whether the adaptations it selects are reliable at getting to the truth. In particular, since rational norms exist

outside a closed system of natural causes (since there is always a gap between actual performance and rational competence), success or failure at capturing these norms can contribute nothing to any organism's reproductive fitness. Consequently, we have good grounds for suspecting that our own cognitive faculties are in fact not reliable at discovering the truth about the norms of reason. These grounds provide a rational defeater of any belief that we have about those rational norms, and therefore also a rational defeater of any inferred belief whatsoever, since justifiable inference depends on justified belief in the inferential norms being followed.

Theists, in contrast, are immune to these worries, since they lack any good grounds for suspecting that God would leave us ignorant of the norms of reason.

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