

THE INCOMPATIBILITY OF SCIENCE AND RELIGION: AN ARGUMENT FOR ATHEISM

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I. INTRODUCTION

When science was still in its infancy, it occasionally occurred that its claims were rejected from a religious point of view. In our day, however, the credentials of science as a superior and dynamic method for the fixation of belief are beyond reasonable doubt. If religious doctrines turn out to be incompatible with scientific theories that are accepted by competent specialists, then the religious doctrines will have to go, while their scientific rivals remain unshaken.

The question of whether science and religion are mutually compatible is not without cultural significance. According to most estimates, about eighty percent of the world's population claims some religious allegiance. If it can be argued convincingly that science and religion are incompatible in all cases, then billions of people will have to abandon beliefs that are dear to them, at least if they possess the will to be reasonable human beings, and an intellectual revolution will be needed. In this paper I argue that science and religion are indeed incompatible.

Let us define 'compatibilism' as the thesis that science and religion are consistent with each other, whereas 'incompatibilism' is the opposite thesis. On the religious side, both compatibilism and incompatibilism may be either local or global. The varieties of local compatibilism argue that a specific set of religious beliefs is consistent with all of current science; hence there are many varieties of local compatibilism. Similarly, varieties of local incompatibilism hold that specific religious doctrines are inconsistent with regard to some part of current science. Local incompatibilisms are compatible with local compatibilisms, provided that the relevant religious doctrines are different in each case.

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Global compatibilism, on the contrary, says that every religious doctrine is compatible with science. In its collective or conjunctive variety, global compatibilism states that all religious doctrines may be accepted as true simultaneously if current science is also accepted as true. This doctrine is indefensible, however, since various religious doctrines contradict each other, such as monotheism and polytheism. Consequently, global compatibilists must be of the distributive or disjunctive kind: they hold that each and every religious doctrine is compatible with science, even though not each religious doctrine is consistent with all the others. This is why, typically, global compatibilism collapses into local compatibilism: once global compatibilists see that they cannot simultaneously accept as true all religious doctrines, they go on to prefer one doctrine to the others, restricting their compatibilism to this favoured creed. All actual compatibilists are local compatibilists, who favour one religion to the detriment of the others. For instance, the Brahman Vivekânanda, one of Râmakrishna's pupils, argued that a spiritualised version of Hinduism is the only religion compatible with modern science.

Global incompatibilism, however, rejects favouritism regarding religions. It holds that all religious views are epistemically on a par, because all are incompatible with some part of science or with the scientific enterprise as such. This is the thesis I defend here, with some qualifications. Global incompatibilism is a truly universal statement about all religions, including non-actual ones. Consequently, it cannot define the notion of religion by enumeration of actual religious creeds; a general definition of the concept of religion is needed. This general definition must focus on the doxastic aspect of religions, for relations of consistency and inconsistency are logical relations between (systems of) propositions. Let me provisionally define the term 'religion', for the sake of my argument, as the belief that there exist personal or impersonal transcendent powers or gods, or the belief that there exists one such power or god.

Admittedly, a religion, in common parlance, is much more than a belief or system of beliefs. Religions involve social organisations such as churches and caste systems, as well as rites and practices such as sacrifices to the gods, prayers, funerals, hospitality rites, festivities, and military rites. Furthermore, religions are typically connected to moral doctrines, to prescriptions concerning nutrition, to a worldview, and to forms of art. It may be argued that religious beliefs are not even central to some religions. One is a Hindu, for instance, not because one endorses a specific creed but because one is born into a determinate

caste; and a Hindu might become an atheist without ceasing to be a Hindu. Nevertheless, only a doxastic definition of 'religion' as the belief that there exist transcendent powers, or that there exists one such power, is relevant to the question of whether religion is compatible with science. Questions of compatibility or incompatibility, defined as consistency and inconsistency, simply do not make sense unless they are concerned with relations between beliefs or propositions. If all religions in the doxastic sense are incompatible with science, then rational human beings should give up their religious beliefs. Yet there might be no infringement of rationality in maintaining social organisations such as churches and caste systems or in continuing to practise specific rites, provided they are re-interpreted as atheistic institutions and rites.

Having defined 'religion', I now come to the issue of strategy. How are we to argue for global incompatibilism? From the outset, it would seem to be difficult, if not impossible, to show that each and every religious creed is incompatible with science, for there is an unlimited variety of possible religious views. The difficulty is aptly illustrated by the manner in which local incompatibilities have been handled within the Christian tradition. As science evolved from the scientific revolution onwards, many inconsistencies arose between scientific results and certain religion-based convictions. For instance, the heliocentrism of Copernicus and Galilei conflicted with the geocentrism of the Biblical authors and the Scholastics. Whereas according to the Old Testament as interpreted by Archbishop James Ussher the earth was created on the evening preceding 23 October of the year 4004 Before Christ, current estimates date the origin of the earth to about five billion years ago. Although Christians hold that a gulf separates humanity from (the rest of) the animal kingdom, Darwin demonstrated that human beings descended from the apes, and, by explaining via his theory of evolution the amazing adaptation of species to their environment, he destroyed the argument from design and the doctrine of the fixity of species. Initially, such inconsistencies provoked heated anti-scientific polemics on the part of Christians. After some time, however, the churches were compelled to give in and adapt the content of their religious beliefs.

Blaise Pascal once contrasted the static character of Christianity with the dynamic nature of science. As the content of Christian faith had been revealed once and for all in Christ and in the Old and New Testaments, it would be a serious mistake to change or re-interpret this content. Religious belief depends essentially on the authority of revelation, Pascal argued. In science, by contrast, one must think for oneself, and science

progresses because new theories are invented to account for the ever-growing body of empirical data. As Pascal said, it was the *malheur du siècle* (misfortune of his age) that theologians tried to modify Christian doctrines, whereas scientists followed authorities instead of thinking for themselves. Yet the Christian churches have not been able to pay heed to Pascal's warning. In order to survive, they have had to develop a strategy for conflict avoidance, so that in fact there has been an intellectual co-evolution of science and Christianity. As soon as an inconsistency between sound scientific results and religious beliefs had been detected, theologians began, albeit reluctantly, to re-interpret or even reject the relevant beliefs. For example, the modern sciences of the brain show that conscious human life depends on brain processes. As a result, the traditional Platonist-Christian doctrine that our conscious souls survive the destruction of our bodies becomes altogether implausible. Few enlightened Christians now believe that the doctrine of the afterlife is literally true, even though the Catholic Church still sticks to it.

In view of this flexibility of the Christian creed, the endeavour to establish global incompatibilism might seem hopeless. Is it not always possible to re-interpret the doxastic content of a religion as soon as conflicts with science arise? Indeed, to the critical historian of religion, Christianity – Protestantism in particular – seems to be something like the Hydra that Hercules had to fight. For each head that Hercules chopped off, new heads grew instantaneously in its place. Similarly, each Christian doctrine refuted by science spawned a great many new interpretations of this same doctrine, interpretations that were so construed that they could not be refuted by the relevant scientific result. We might conclude that global incompatibilism can be established only if there is a limit to this series of possible re-interpretations. My strategy is to argue that there is such a limit.

Apart from a viable strategy, global incompatibilists need sound tactics. After all, the classic rejoinder given by believers to compelling arguments against religion is that these arguments work against only specific varieties of religion, say, orthodox varieties, which these believers themselves also reject, and that, consequently, the arguments leave entirely intact their own religious convictions. For this reason, global incompatibilists have to make clear from the very start that their argument is concerned with all possible varieties of all possible religions. There is at least one argumentative tactic that clearly meets this requirement. The argument has to proceed by means of dilemmas that divide the domain of all possible religious convictions exhaustively into two

mutually exclusive subdomains. Thus the burden of proof for global incompatibilists consists in showing that religious believers are defeated by science and logic irrespective of which horn of the dilemma they prefer. For this reason, my argument consists of a series of interlocking dilemmas.

II. THE DILEMMA OF FAITH AND REASON

In everyday discussions of religion, one often hears atheists claiming that the existence of God or a god cannot be demonstrated. To this, believers typically reply that the non-existence of God cannot be demonstrated either. Atheists and believers might seem to agree, then, on the idea that the acceptance and rejection of religious belief are equally reasonable. Agnostics react to this situation by saying that, if the pros and cons concerning religious belief are equally strong or equally weak, then one should refrain from conviction. But according to some believers and some atheists this reaction is a mistake. Abstention from judgement in view of an equal weight of pros and cons is a justifiable attitude so long as one remains within the domain of reason. According to such believers and atheists, however, the reason for the idea that religious belief and atheism are equally reasonable is that the issue of whether God exists transcends the province of reason altogether. Let us call this view the thesis that *faith transcends reason*, abbreviated as FTR.

In modern Protestant Christianity, FTR is quite popular, though its popularity is of recent date. According to Paul's Letter to the Romans (1:20), the atheist has no excuse because the existence of God the Creator can be derived, by reason, from the Creation. This text has been the Biblical justification for a long tradition of rational or 'natural' theology, in which philosophical theologians have tried to prove or show the possibility of God's existence by rational argument and empirical science. Although this tradition is not altogether dead – Alvin Plantinga and Richard Swinburne, among others, still contribute to it – its cultural significance diminished considerably after such philosophers of the Enlightenment as Hume and Kant had argued that rational proofs of and empirical arguments for God's existence are invalid and even a priori impossible. Indeed, the thesis that faith transcends reason gained popularity because of the very fact that rational theology was considered bankrupt and because the rise of science began to threaten religion. Would it not be possible to protect religion against scientific attacks by

claiming that faith transcends the domain of reason altogether? This is what Kant had in mind when he said in the Preface to the second edition of his *Critique of Pure Reason* (1787) that he had to abolish knowledge (that is, the illusion that we are able to *know* whether God exists) in order to make room for faith.

However, I myself do not endorse the thesis that faith transcends reason. Nor do I reject FTR from the outset. Rather, I leave it up to religious believers to decide whether or not they accept the thesis. My aim is merely to confront believers with a dilemma from which they cannot escape: either faith transcends reason or faith does not transcend reason. This dilemma divides the domain of possible religious beliefs exhaustively into two mutually exclusive subdomains, since the dilemma is a disjunction of mutually contradictory claims. Clearly, believers can choose to locate some of their religious tenets in one of these two subdomains and other religious convictions in the other. For instance, according to the Roman Catholic Church, the thesis that God exists is situated within the province of reason, whereas the dogma that the three personalities in God – Father, Son, and Holy Spirit – are only one God, is a mystery that transcends reason. As I said, I leave it entirely up to religious believers where to locate their beliefs. What I urge is merely that each religious tenet has to be located in one of the two subdomains.

My argument is that wherever religious tenets are located, that is, whether they are said to transcend reason or to fall within the province of reason, they will be defeated by science. Let me first discuss the horn of the dilemma which says that faith transcends reason (this section). We will see that this horn refutes itself. In the next section, the other horn will be discussed, which says that faith falls within the province of reason. If we choose this second horn, we will see that science and reason defeat faith.

The argument concerning the first horn of the dilemma starts with a simple semantical observation. There is no belief without a propositional content. Whenever we believe, we believe that something is the case or is not the case. The most fundamental belief of religions, as I have defined them, is the belief that one or more gods exist. Logically speaking, the propositional content of such a belief has the form of a simple predication Fx , of which the object variable x is bound by an existential quantifier. Clearly, this propositional content has no meaning unless the predicate F , that is, the word ‘god’ or ‘God’, has been given a meaning.

From a grammatical point of view, the word ‘god’ or ‘God’ may function both as a general name, as in ‘The Greeks in Homer’s time believed

in many gods', and as a proper name, as in 'I know that God will listen to my prayers'. In principle, it is possible to give a meaning to both common names and proper names by means of ostensive definitions, but in the case of the general name 'god' and the proper name 'God' this is usually thought to be excluded, because we cannot perceive gods or God. Hence, the only way in which we might give meaning to the word 'god' or 'God' is by providing a description of what we think the possible referent (or referents) of this word is (or are) like. Without such a description, the discussion of whether gods exist or God exists is altogether meaningless.

The problem which we have to face now is a problem of choice, an *embarras de choix*, as the French say. For the comparative study of religions has discovered a multitude of descriptions of gods, each of which gives a different meaning to the little word 'god'. Hinduism alone provides us with a tropical zoo of different descriptions of gods, so that the question arises: how do we want to define the word 'god' or 'God' if we want to believe that a god or God exists? Without such a descriptive definition, our religious belief is devoid of propositional content and is, consequently, not a belief at all. In order to develop this question, I now give an example of a particular description of gods. Few of us will believe that these gods exist, for I derive my example from the Germanic creed expressed in the *Edda*.

According to the *Edda*, the earth on which we humans live was created within the Great Void, called Ginnungagap, as follows. When the water of eleven rivers which flow from the well called Hvergelmir touched upon the Ginnungagap, it froze. The resulting ice collided with the fire of the red-hot world called Múspell, which belonged to the giant Surtr. This collision produced the colossus Ymir, who gave birth to two giants produced from the sweat of his right armpit, whereas his two legs in combination begot a third giant. Somewhat later, three other divine sons were born from the cow Audhumla, fathered by the giant Bolthorn. These sons, called Odin, Vili, and Vé, assassinated the colossus Ymir and brought his corpse to the centre of Ginnungagap. There Ymir's flesh became earth; his blood became the wafer of seas and lakes in which the giants were drowned; his skull is the vault of heaven; his legs are mountains; and so on.

According to this slightly distasteful theo-cosmogony, gods are giants and humans live within a colossal skull. According to other religions, gods are huge elephants or snakes, and the world is a giant egg, such as in a variety of Hinduism. If we tend to call these descriptions of gods

mythological, this means that we do not believe that they are true, that is, we do not believe that there really are entities that fit these descriptions. Maybe our incredulity is caused by the simple fact that we are brought up within another religious tradition. But it may also be that we have good reasons to reject these religious beliefs, and our reasons may point the way to a more adequate definition of the word 'god'. What are our reasons for rejecting the ideas that we live inside a giant skull or egg and that there are gods that are huge elephants or giants?

These reasons are provided by our scientific knowledge of the world. Since the times that the Hindus invented their explanations of the world and that the *Edda* was written, there has been an astonishing advancement of learning. For instance, Edwin Hubble discovered in 1924 that our galaxy is not the only one, and astrophysicists calculated that there must be more than a hundred billion galaxies. From the 'red-shift' in the spectra of light from other galaxies they deduced that these galaxies are moving away from us at a speed proportional to their distance from us. It follows that the universe is expanding like the surface of an inflated balloon, and, calculating backward, it has been concluded that the universe must have originated from a singularity called 'the Big Bang'. This theory implies very precise predictions, such as the hypothesis of background radiation, which have been confirmed to an astonishing degree. Moreover, the physics of thermonuclear processes within stars explains the origin of the chemical elements that we find in our earth; hence the earth must have originated from cosmic dust that supernovae propelled into space.

As long as there is money for research, our scientific views of the world will develop, and, in principle, there is no limit to scientific progress. But is it conceivable that at some moment in the future scientists will discover that, after all, the Germanic giant Ymir or the Hindu god with the elephant's head Ganesha really does exist, or that we live inside a colossal skull or egg? Of course, this is altogether excluded, because these views are in conflict with a huge number of well-confirmed scientific ideas. We may now give a somewhat more precise content to the notion that faith transcends reason. Let us define 'reason' as scientific method, and take 'science' in the very broad sense of the German word *Wissenschaft*, so that all disciplines of empirical research are included. We may then say that faith can transcend reason only if the propositional content of faith meets the following requirement. The relevant notion of god must be defined by a description which is such that a belief in the existence of this god *can never come into conflict with the*

results of empirical research, even if scientific progress goes on indefinitely. We may call this requirement 'the postulate of dynamic compatibility'. The reader should note at this point that I am free to define the term 'reason' as it pleases me. Within the context of a dilemmatic argument, my definition has to meet one requirement only. The disjunction that faith either transcends reason or falls within the province of reason should be exhaustive and exclusive in the sense explained above. The fact that reason may be defined in other ways, such as in Hegel (*Vernunft* versus *Verstand*), is not a valid objection.

If the postulate of dynamic compatibility can be satisfied, then we will have established local compatibilism between, on the one hand, a specific religious tenet, the tenet that a god exists, where the notion of 'god' is defined in accordance with the postulate, and, on the other hand, science in the broad sense of *Wissenschaft*. I call the resulting compatibility *dynamic*, and not static, because the religious tenet that satisfies the postulate is compatible, not only with current science, but also with all imaginable future states of science. But is there a definition of the word 'god' that satisfies the postulate of dynamic compatibility? In other words, are we able to develop a conception of God, or of gods, such that the thesis that this God exists, or these gods exist, can never come into conflict with the results of empirical research? Are we able to define a propositional content of faith such that faith transcends reason?

A definition of 'god' will satisfy the postulate of dynamic compatibility only if the thesis that this god exists has no factual implications whatsoever. If there are such implications, then it will be possible, in principle, that future empirical research will discover that the implications are false, and faith will be refuted by reason. Hence the postulate of dynamic compatibility implies another postulate, which I call 'the postulate of factual emptiness'. Faith can transcend reason only if the description of a god that gives propositional content to the relevant religious belief has no factual content.

Admittedly, many philosophers have denied that the postulate of factual emptiness follows from the postulate of dynamic compatibility. Might it not be the case that the domain of facts open to scientific investigation is somehow restricted? In that case, faith might transcend reason because faith is concerned with a domain of facts beyond the scope of scientific investigations. But this line of argument is of no avail to believers who think that faith transcends reason. The limits to the domain of possible scientific research are either empirical or a priori. If they are empirical, such as the limits indicated by the special theory of

relativity, then future scientists might discover that these limits do not exist, which shows that the postulate of factual emptiness follows after all. If these limits are a priori, we must suppose that there are synthetic a priori propositions, but this assumption is generally considered to be untenable. Consequently, we have to accept that the principle of dynamic incompatibility implies the principle of factual emptiness.

It is not very difficult to see that most notions of God in the Christian tradition do not satisfy the postulate of factual emptiness. According to the Old Testament, for example, God created the heavens and the earth 'in the beginning' (Genesis 1:1), that is to say, at the same time. However, modern cosmology teaches us that the earth came into existence from ten to thirteen billion years after the 'heavens' did, so that the description of the Creator God in the Old Testament has factual implications that have been refuted by science. To take another example of a Christian concept of God, Blaise Pascal claimed that, if there are no miracles, then there is no reason to believe in Christ and God; hence Pascal's claim that God exists implies the factual occurrence of miracles.

However, as David Hume argued around 1750, we never have good reasons for believing in the occurrence of miracles. As a consequence, Pascal's notion of God does not satisfy the postulate of factual emptiness either. A 'miracle' must be defined as an event that violates a well-established deterministic law of nature, for only then is there any reason to attribute such an event to God as its Special Author. From this definition of a miracle it follows that the occurrence of miracles has a subjective probability of zero. Now assume, counterfactually, that the people who tell us about miracles are absolutely trustworthy, so that the probability that they speak the truth is one. Should we then believe that miracles occur? We must abstain from judgement even in this case, for if the probability that our witnesses are trustworthy is one but the probability of the occurrence of the event they report to us is zero, then our resulting subjective probability is at most one-half. In fact, our subjective probability will be much lower, because testimonies of miracles are not trustworthy: they are typically produced by uneducated people from backward regions. Hence we should never believe in reported miracles. Finally, what should we do if we ourselves witness an event that violates a well-established deterministic law? We should either reject our experience as untrustworthy or reject the law of nature, so that, even in this case, we are not justified in believing that there are miracles.

Yet another example of a Christian notion of God is the concept developed by Newton, who wrote more pages on theology than on

physics. Even Newton's notion of God does not meet the requirements of dynamic compatibility and factual emptiness, for, according to Newton, God had to adjust the revolutions of the planets from time to time, which were perturbed by gravitational interactions with each other and with comets. Moreover, according to Newton's dynamics, a perpetual miracle is needed to keep the universe from collapsing, unless an infinite number of stars is distributed evenly in infinite space. But in that case it is a mystery why there is darkness during the nights. Later developments in astronomy, such as Laplace's more precise calculations of the orbits of planets and the discovery of the finite expanding universe, have refuted the existence of Newton's active god, so that we may quote what Laplace seems to have told Napoleon concerning God: 'Sire, je n'ai pas besoin de cette hypothèse.'

These examples will support a pessimistic induction: it is not easy to establish dynamic compatibility between faith and reason by giving a definition of 'god' that satisfies the postulate of factual emptiness. Indeed, we may wonder whether it is possible at all to define the word 'god' by a description that meets the requirement. Let us try to resolve this crucial issue methodically. First, we distinguish between a class of less promising definitions and a class of more promising definitions. Monotheistic definitions are more promising than polytheistic definitions, because the gods of polytheistic religions are typically linked to natural forces – e.g., Apollo was thought to cause plagues – hence polytheistic gods become redundant in the course of scientific progress. Second, we try to narrow down the class of more promising monotheistic definitions by gradually eliminating their factual implications. Miracles are such factual implications, and I have eliminated them. Obviously, the Christian idea that God became man in Christ, as shown by Christ's miraculous powers, cannot be admitted either, if we want to satisfy the principle of factual emptiness (this might be a reason for converting to Islam). The same holds for revelations, which are factual and causal consequences of a god. Accordingly, the descriptive definitions of God given by revealed religions such as Christianity and Islam have to be rejected, and we are left with the class of deistic definitions. Yet deism will not do either. The essence of deism or theism as it developed from the sixteenth century onwards was to reject revealed religion and to restrict faith to the results of natural theology. However, natural theology is situated entirely within the domain of reason. Since we are discussing the horn of the dilemma which says that faith transcends reason, we have to reject deistic definitions of God as far as this first horn is

concerned. We now see that the class of possible definitions of the word 'god' which satisfy the postulate of factual emptiness is the null set.

This result can also be reached by way of a shortcut. We might summarise the argument up to this point as follows. The debate about the question of whether God, or a god, exists is devoid of meaning unless one provides a descriptive definition of the word 'god'. If faith transcends reason, then the thesis that there exists a god who satisfies this descriptive definition should not have any factual implications; for, if it has such implications, then the thesis that the relevant god exists might be refuted by future scientific research. However, the idea of a description without factual implications is contradictory, for, if a descriptive statement that such and such is the case is true, then such and such is the case, that is, a fact obtains. Hence, if faith transcends reason, then one cannot give a definition of the word 'god', and believers cannot describe the god in whom or which they believe.

This conclusion has been welcomed with great delight by a special type of religious believers, the mystics of the *via negativa*, who are inspired by the tradition of pseudo-Dionysius Areopagita and Nicolas of Cusa. They hold that God is radically transcendent to all factuality. We cannot describe God, they say. At best we can use certain metaphors, such as 'father' or 'light' or 'infinitely good', but these metaphors cannot have their usual meaning. Moreover, it is impossible to explain what meaning the metaphors do have by translating them back into literal language. Since God is radically transcendent to our world, no human language applies to him or her or it, and the only way to seek God is by *docta ignorantia*. Modern philosophers such as Wittgenstein and Heidegger seem to have reached a similar conclusion. In his *Tractatus Logico-Philosophicus*, Wittgenstein claims that God transcends the world in the sense of the totality of facts: 'God does not reveal himself in the world' (6.432). Consequently, we cannot describe what God is, for all true descriptions correspond to facts, and 'what we cannot speak about we must pass over in silence' (6.54). Yet, Wittgenstein says, there is (*Es gibt*) the ineffable, and this is the mystical (6.522). Similarly, Heidegger claims that what he calls '*Seyn*' transcends the totality of entities (*Seiendes*). Since propositions are about entities, we cannot capture *Seyn* by uttering true propositions. Yet what Heidegger calls 'thinking' is allegedly some kind of responding or listening to the voice of *Seyn*. In short, modern philosophical believers such as the early Wittgenstein and the later Heidegger fully endorse the conclusion that God or *Seyn* is ineffable.

Yet these modern believers fail to accept one small further step, which is implied by their thesis of ineffability. If we cannot define the word 'God' or '*Seyn*' by giving a description of its possible referent, then the word has not been given a meaning at all. As a consequence, the propositions 'God exists', 'God does not exist', and 'we do not know whether God exists' have not been given a meaning either. It follows that the three traditional attitudes vis-à-vis God or the gods, namely, faith, atheism, and agnosticism, are equally devoid of content and collapse into each other. More precisely, they all collapse into nothing, because a belief without propositional content is not a belief. I call this implication 'semantical atheism', a qualification which applies to all contexts where the word 'God' is used without meaning. Although in the eyes of the mystic, semantical atheism may seem the *summum* of religious sophistication, it is in fact the final downfall of religion. Using a meaningless word cannot give meaning to our lives.

The first horn of the dilemma of faith and reason consists in the thesis that faith transcends reason. We now see that this horn leads to a *reductio ad absurdum*. Faith is the belief that a god exists. This belief is empty and, in consequence, not a belief at all unless the notion of a god is defined by a description. However, if faith transcends reason, this description should be such that faith is dynamically compatible with science, and this requires that the description be devoid of factual content. Since such a description is a priori impossible, the horn that faith transcends reason implies semantical atheism. Furthermore, if the thesis that faith transcends reason (FTR) is correct, then it must be incorrect. For the thesis implies that we can establish neither faith nor atheism by reason. And yet we have derived semantical atheism by a chain of reasons from the supposition that faith transcends reason. In other words, if FTR is true, then it is false. And if FTR is false, then it is also false. Hence FTR is false in all cases.

III. THE PLURALITY OF RELIGIONS AND OTHER DILEMMAS

Believers cannot escape the necessity of locating each of their religious tenets within one of two subdomains, the domain of faith transcending reason or the domain of faith within the province of reason. We have now seen that the first horn of this dilemma implies semantical atheism. What about the second horn? Will believers be able to uphold their faith if they choose to locate their religious tenets within the province of reason? I

will argue that here, too, believers are confronted with fatal difficulties. Even though their religious tenets may be compatible with current science, they must become atheists if they really want to understand their faith. Hence, paradoxically, they must abandon faith in order to grasp its real nature. Let me explain why this is the case by developing a short series of interlocking dilemmas.

If faith is situated within the province of reason, then believers are obliged to explain why they adhere to a specific creed. There are two methods for doing so, which are mutually exclusive and which exhaust the field of possible procedures: the one is explanation by justification and the other is justification by explanation. On the one hand, believers can explain their adherence to their creed by giving good reasons for endorsing it. This is the programme of natural, or rational, theology. In the Christian tradition, theologians have tried to prove God's existence by rational argument from purely natural premises, an endeavour justified by Paul's Epistle to the Romans, 1:20, which says (as we saw) that the ungodly person has no excuse because God's invisible nature may be inferred from 'the things God has made'. This method is the strategy of explanation by justification. However, Luther rejected this strategy, just as he rejected Scholasticism in general. He re-interpreted Romans 1:20 by saying that the phrase 'the things God has made' does not refer to the natural world but to Christ on the Cross and to Revelation. But, of course, Christ and Revelation cannot provide religiously neutral or 'natural' premises for a proof of God's existence, since, in order to interpret the historical Jesus as Christ, as well as the books of the Bible as revelations, we have to endorse Christian faith in the first place.

If, with Luther, we reject natural theology, or if, with Kant, we regard natural theology as a priori impossible, then the strategy of explanation by justification is blocked. Yet there is a second strategy for justifying faith, which was Luther's own strategy and which I call the strategy of justification by explanation. The idea is that there is a true explanation of faith which *eo ipso* justifies faith, and this explanation is that faith is an act of grace, a free gift that God bestows upon us. If this religious explanation of faith is true, the propositional content of faith, that there is a God who gives us our faith in him or her, must be true as well. Hence this explanation of faith also justifies faith: it is a justification by explanation or a self-justifying account.

Believers who locate their religious tenets within the province of reason are confronted, then, by the following dilemma. Either they must follow the strategy of explanation by justification or they must adopt the

strategy of justification by explanation. I will be very brief on the first alternative. There are simply no sound rational proofs of the existence of God or a god, as the vast philosophical literature on this topic shows. Moreover, the recent fashion of giving probabilistic arguments or arguments to the best explanation for the existence of God has not yielded a convincing case either.² Thus far, I have not discussed the problem of the burden of proof. But if believers locate their religious claims within the domain of reason and if they choose the strategy of explanation by justification, then clearly they assume the burden of proof. They must argue that their God exists or gods exist. It will not do to shift the burden of proof to unbelievers or to hold that the burdens of proof are equal for believers and unbelievers, as was assumed in section II of this paper. I regard the strategy of explanation by justification as hopeless. One might refute me on this point by providing a convincing argument for the existence of a specific god. However, as religions contradict each other at many points, any argument for the existence of a specific god will be destroyed by similar arguments for the existence of rival gods.

The second horn of the dilemma, according to which believers justify their faith by giving a religious explanation of the fact that they possess it (faith is a gift of God through which God reveals Himself to us), is confronted by a new dilemma, the dilemma of the plurality of religions. For either we have to provide a religious explanation of faith for all religions or we have to provide a religious explanation of one religious faith only, usually our own faith, and explain the existence of other religions by such secular theories as Freud's theory of projection. If we opt for the first horn of this dilemma, then we must assume that Christian faith is caused in Christians by the Christian God, that the belief in Hindu gods such as Indra, Agni, Varuna, Mitra, Brahmâ, Vishnu, and Shiva (and so on) is caused in Hindus by the grace of Indra, Agni, and their innumerable divine colleagues, and that the German faith in the cow Audhumla and the giant Bolthorn was caused by the grace of Audhumla and Bolthorn. This broad-minded option is ruled out by the fact that the different religious explanations are mutually contradictory. Monotheistic religions teach, for example, that there is but one god, their own.

The second, narrow-minded horn of the dilemma of the plurality of religions, which has us giving religious explanations for our own faith and secular explanations for others, fares no better than the first. It fails

² I cannot argue this point here. Cf. J. L. Mackie, *The Miracle of Theism* (Oxford: Oxford University Press, 1982) for a critique of contemporary natural theology.

not only because it is an unjustifiable case of special pleading, but also for a second and more important reason. According to the second horn, religious explanations of faith are in mutual competition, for according to monotheism, only one monotheistic explanation can be true, whereas the polytheistic explanations have to reject all monotheistic ones. However, if the issue is how we are to explain the fact that people have religious beliefs, then the competition between explanations is not restricted to religious explanations. On the contrary, secular (i.e., atheistic) explanations are running in this competition as well. The problem of which is the best explanation has to be solved by invoking the usual criteria for theory choice, such as empirical adequacy and paucity of assumptions.

Do religious explanations have a chance of winning this explanatory competition? It is a priori certain that they have no chance at all. A new dilemma will show why religious explanations of faith have to be ruled out from the very start. Either a religious explanation of faith, say the Christian one, merely explains the religion that is justified by accepting the explanation (in this case the Christian religion) or one particular religious explanation of faith purports to explain all religious phenomena. In the former case, the explanation will not explain the vast majority of religious beliefs, those of Hinduism and Buddhism, for example, whereas secular explanations of religious faith, such as Freud's theory, purport to explain all mental phenomena of religious belief. As a consequence, secular explanations are preferable to religious ones because of the criterion of empirical adequacy. As an example of the latter case, the Christian God would have caused, not only Christian faith in Christians, but also faith in the giant Bolthorn in early Germans. It may be that one element in the Christian doctrine implies this, for, if God has determined everything, then he must also have determined the religious ideas of the early Germanic peoples. Yet it is excluded by another element in the Christian doctrine, namely, God's infinite goodness. Why should the Christian God deceive so many people or at least allow so many to be deceived? I conclude that religious explanations of the mental phenomena of faith have to be rejected in all cases: they are either too restricted or ad hoc and absurd. Hence, if we want to understand the phenomenon of religious belief, we must have recourse to atheistic explanations. It follows that believers will never be able to explain their faith adequately, for, in order to explain it, they must become atheists and abandon their faith.

My conclusion is as follows. If faith transcends reason, then semantical atheism results. If faith falls within the province of reason, then we must become regular atheists. Some people may prefer a more cautious

conclusion. Should we not become agnostics? We had better not, because the dilemma of faith and reason rules out not only faith but also agnosticism. Agnosticism is the doctrine that, since the pros and cons concerning each and every creed balance one another out, we should abstain from either assenting or dissenting. As pros and cons are reasons, the agnostic attitude can be justified within the province of reason only. However, within the province of reason the pros and cons concerning each and every religion do not balance each other out. On the contrary, we saw that in this domain regular atheism is the stronger option. If we choose the other horn of the dilemma of faith and reason, according to which faith transcends reason, then agnosticism is equally unjustified. For agnosticism presupposes that the question of whether a god exists is at least meaningful. This presupposition is refuted by semantical atheism, which is implied by the thesis that faith transcends reason.

As a consequence, the correct view to take on religious matters is a disjunctive one. Either semantical atheism is true, since the word 'god' has not been given a meaning, or semantical atheism is false, because the word 'god' has been given a clear meaning, in which case we must be regular atheists and deny that this god or God exists. Atheists need not choose between these options. In discussions with believers they should start by saying nothing at all. If believers advance the claim that a god exists, or engage in a language game such as prayer, which presupposes that a god exists, then atheists should merely ask believers which descriptive definition they use to give meaning to the word 'god'. Typically, the thesis that there exists a god that satisfies such a definition will have factual implications, in which case atheists will point out that there are no good reasons to suppose that god as defined exists. Very often, however, believers attempt to immunise their creeds by eliminating each and every factual implication of their definitions. In that case, atheists will point out that believers have failed to give meaning to the word 'god', so that the purported belief has no propositional content and, therefore, is not a case of belief.

A meticulous analysis of religious language games in contemporary Western culture would reveal, I submit, that believers constantly oscillate between these two options, refusing to choose, because they are dimly aware that, whatever they choose, their religion will be shipwrecked. This is to be expected. Very often, religion is the product of a human longing that there be more to life than in fact there is. As soon as one tries to formulate this 'more' in meaningful propositions, one dimly perceives that these propositions are very probably false.

It might seem that my argument is one of insidious intent. Yet its conclusion has positive implications. In the Catholic Church a maxim is adopted which says that *ecclesia semper reformanda*. If the extant religious organisations would accept the conclusion that existence-claims concerning gods are either meaningless or untenable, they might reform themselves. All religious dogmas could be rejected, and all stories about God or gods and the afterlife or metempsychosis could then be interpreted as myths. Such an inclusive interpretation of all religious dogmatics as myths, towards which many religious people are already on the way, has considerable advantages. By relinquishing religious claims to truth, the wholesale re-mythisation of religions would not only guarantee that religion (in loose parlance) would never be in conflict with scientific progress; it would also make religions mutually compatible.

There is no reason why those who love Homer's *Odyssey* because they see it as a symbolic and moving representation of man's longing to come home will not also love the Gilgamesh epos as a tale of friendship and resignation in the face of death. Similarly, if religions are stripped of their claims to truth, then religious people will consider all religions as being on a par, and they may learn to appreciate and love the myths of religious traditions other than their own. In modern societies, multicultural education should help people in this respect and aim at overcoming old religious antagonisms. Furthermore, the conclusion of this paper might encourage an inner transformation in believers. Instead of assenting to religious doctrines that teach us that there is more to life than we in fact find there, religious people should try to see religious myths and practices as celebrations of life as it is.