AUTHOR’S RESPONSE TO COMMENTARY ON “A SCIENTIFIC PROOF OF THE EXISTENCE OF GOD”

Commentator: Arash Abizadeh

Arash Abizadeh’s commentary raises, either directly or implicitly, quite a number of points with regard to my article on a scientific proof of the existence of God. Responding to them adequately will require some careful attention to detail.

In the first instance, Abizadeh raises several questions concerning truth, knowledge, and relativity. He suggests that, in some contexts, it would be clearer (or more accurate) to speak of the relativity of knowledge rather than the relativity of truth. He also raises questions about exactly what I mean by relativity and how my notion of relativity compares with that of other (e.g., postmodernist) philosophers. Let us try to clarify these issues.

To begin with, it is important to realize that what is “true” or “false” are affirmations we humans make about reality, not reality itself, which (whatever it may ultimately be) just is. In our attempts to know how reality is, we formulate, in our own language, various statements which assert that some portion of reality is configured in a certain way. If reality (or the designated portion thereof) is indeed so configured, then the given assertion is true. If not, then the statement (which asserts that it is) is false.

Thus, the truth value (truth or falsity) of a given statement is relative to (depends upon) only two things: structure (how reality is configured) and meaning (what the statement asserts about how reality is configured). In particular, the truth value of a statement does not depend on our knowing what that truth value is. Truth is independent of our knowledge of the truth.

How do we go about the process of ascertaining the truth value of a statement? The answer is by engaging in certain verification procedures, which I have rather completely described elsewhere and which I will not repeat here. The only relevant point here is that these verification procedures are relative (and not absolute) in the precise sense that we may apply all of these procedures to a false statement without detecting its falsity. In such a case we may conclude in error that the statement is true. We can only hope that, if we persist in applying our verification procedures to all statements, then, because of the logical interconnections between statements generally, we may sooner or later detect the falsity of the given statement and thus retroactively correct our judgment as to its truth value.

How do we deal with the fact that we may sincerely, rationally, but incorrectly assess the truth value of a statement? The only way is to remain open to that possibility. This means that we must always be aware of the logical possibility that future verifications may invalidate any given statement we

currently hold to be true. But lest we hastily jump to the false conclusion that this represents a total chaos (which would be the kind of “absolute relativity” of many postmodernists), let us recall that there is an immense difference between a logical possibility and a high degree or probability. We can think of the knowledge-seeking enterprise as a dynamical system in which we continually reiterate our verification procedures and gradually converge towards a certain “fixed point,” i.e., a stable description of reality so highly validated that the probability of its being falsified by future verifications is practically zero.

Now, when I speak of the relativity of truth, I refer precisely to the situation described in the previous two paragraphs. The truths that we hold, i.e., those statements whose truth value we have positively assessed, can never be considered absolutely immune from the logical possibility of future falsification and consequent retroactive revision. This does not mean that we believe any less in the truth of those statements we have verified. It just means that we wisely recognize the limitations God has put on our human capacity for truth verification. Thus, the truth we have, the truth we possess (in the form of currently validated or verified statements) is relative. Moreover, no matter how numerous and how highly validated may be the truths we have accumulated, there always remain(s) (an infinity of) true statements whose truth value we have not yet discovered.

One consequence of this situation is that the ongoing dynamic of truth-seeking is, in some ways, more important than the body of accumulated truths itself. A sincere skeptic may currently know very few truths but, by persisting in a careful and discriminating verification process, suddenly harvest an impressive array of new truths. At the same time, a credulous individual may currently possess many truths but be unable to make further advances in truth seeking for lack of a sufficiently discriminating personal truth-verification mechanism. (Also, a credulous person may believe many falsities along with the truths he or she knows, thereby diluting a drop of truth in a sea of falsity.) This is the way I understand the Bahá’í principle of the personal and independent search for truth: each individual is responsible for generating and deploying an adequate, discriminating truth-verification mechanism, and God has endowed every one of us with the capacity to do that.

Abizadeh suggests that what is properly relative here is not so much truth but our knowledge of the truth. I have no quarrel with this, and I have in fact used this very terminology elsewhere. In any case, whenever I speak of the relativity of truth, I am generally referring to the truths we currently possess, not to the abstract set of all truths, many of the truth values of which we are ignorant.

However, it is important to realize that even the abstract set of all truths is relative in several important ways. To begin with, we have seen that truth depends not just on reality but also on the meanings of (what is asserted by) our

2. See, for example, “The Science of Religion,” Bahá’í Studies 2:5.
statements about reality. Subtle shifts in these meanings (which, in the first place, are largely the product of various tacit conventions within the linguistic community) can alter the truth values of some statements without there being any change in reality itself.

Moreover, statements are semantically interconnected in such a way that the meaning of one statement may sometimes depend partly on the meaning of other statements: meaning depends on (is relative to) context. Thus, to consider the individual statement as an independent, meaning-bearing entity, is a slight (though deliberate and harmless) idealization of the real situation. (This, incidentally, has to be taken into account in our pursuit of knowledge: our verification procedures are often more properly applied to entire contexts, i.e., to theories [which are collections of statements] rather than just to individual statements.)

Another source of the relativity of truth lies in the fact that reality, being dynamic, may change so that a statement (or theory) that is now true becomes false in the future. (It is even possible that a statement we set out to verify may have been true in the beginning but false by the time we have succeeded in applying our verification procedures to it.)

In sum, both truth and knowledge are relative in various ways, and there are many different kinds of relativity. There is no genuine risk of confusion as long as we are clear, in each case, what we are talking about, but confusion can arise if we try to assimilate or reduce one kind of relativity to another. Nor does this “relativity of relativity” mean that everybody’s doctrine of relativity is correct (i.e., true!).

With reference to the second part of his commentary, Abizadeh raises and discusses various issues regarding the portion of my argument that reasons from the evolutionary force to God. The problems Abizadeh perceives are largely due to the fact that his analysis does not take into account the crucial distinction between a logical definition on one hand, and a comprehensive definition on the other, with the result that his various formulations (or reformulations) simply do not apply to my argument as correctly formulated. Let us examine these questions in more detail.

A logical definition defines an entity by taking just one of the attributes of the entity, but an attribute that is sufficient to determine or distinguish the entity from all other entities. A comprehensive definition seeks to define the entity in the totality of its attributes. Thus, a logical definition of Ottawa would be that it is the capital city of Canada. Another logical definition would be that it is that city geographically situated at a certain latitude and longitude. Each of these definitions singles out Ottawa from all other entities in existence, yet neither defines Ottawa in all of its attributes. Moreover, the other attributes of Ottawa (e.g., its population or its class structure) are logically independent of the defining attribute: these other attributes cannot be deduced just from a knowledge of the (logically) defining attribute.
Many logical definitions of God are possible. For example, God is the uncaused cause, the universal cause, the ultimate origin of all existence, the creator of our particular universe, the creator of the human being, or the creator of human life on this planet (this last is the particular logical definition of God we have used in our scientific proof). Each of these definitions serves to determine or distinguish God from all other entities, but none of them defines God in the totality of His attributes.

Indeed, Bahá'u'lláh tells us that we humans will never be able to give a comprehensive definition of God, and ‘Abdu’l-Bahá goes further by saying that humans cannot hope to give adequate comprehensive definitions of even the simplest of physical systems. As it turns out, comprehensive definitions appear to be possible only for certain abstract, logical entities such as those involved in pure mathematics.

Thus we recognize that God is beyond human comprehension and that God has an infinity of attributes. Yet any attribute of God that is true only of God can serve as a logical definition of God. We have therefore proved that God exists whenever we have proved the existence of an entity $G$ that has any particular defining attribute of God. In the case of the present proof, we have proved the existence of a force-entity $F$ that has created the human being on this planet. Since the attribute “creator of human life on this planet” applies only to God, if such a creator of human life exists, then $F = \text{God}$.

Once we have established the existence of God, the question of God’s nature then arises. The last part of my article shows that some of the other attributes of God can be reasonably inferred from the attribute “creator of human life on this planet,” but it is certainly neither true nor necessary, nor does my article claim, that all the divine attributes may be inferred logically from this one defining attribute. Yet, such an unreasonably strong condition is exactly what Abizadeh applies when he asserts that my argument is correct only if the defining attribute (which he states incorrectly) “necessarily implies . . . everything that we normally mean [by God] (i.e., the divine attributes)” (70).

In other words, it would seem that, in Abizadeh’s view, one would have to establish all of the divine attributes, thereby giving a comprehensive definition of the nature of God, in order to prove God’s existence. Since, as we have already seen above, a comprehensive definition of God is a priori impossible, such a viewpoint would exclude forever any possibility of proving God’s existence by any means whatever. In fact, this same stringent criterion would, if applied in the natural sciences, exclude most accepted scientific definitions. That is why the distinction between logical and comprehensive definitions is so crucial to an understanding of these issues.

However, since Abizadeh specifically calls into question the logic of the portion of my proof that reasons from the evolutionary force to God, giving several incorrect reformulations of it, clarity would probably be served if I produce here a more formal, precise rendering.
To begin with, it is most important to understand that my argument does not seek to prove that God (according to some a priori notion or category) has intervened in the evolutionary process in a given way. Rather, my argument first establishes the objective existence of an evolutionary force, and Abizadeh states that “that conclusion is the strongest part of [Hatcher’s] article” (70). My argument then proceeds by pointing out that humanity, being the end product or outcome of evolution, is thus the creation of that force. This fact justifies my regarding the evolutionary force (whatever it is and however it has acted) as God. It is our God, the God of humanity, because it is our creator: the evolutionary force $F$ satisfies a logical definition of God.

My argument does not seek to predicate of God, so defined, attributes other than what can reasonably and plausibly be predicated of the evolutionary force on the basis of its being the cause of human existence. But, as it turns out, that is still quite a lot (which is one of the points of ‘Abdu’l-Bahá’s original argument). In particular, I argue that God has will and conscious intelligence.

However, these considerations about the nature of God follow the proof of God’s existence, and they are not used in any way in the existence proof itself, contrary to some of Abizadeh’s (incorrect) reformulations. Thus, Abizadeh is correct in affirming (in effect) that will and conscious intelligence are not defining attributes of God, but my article never claims otherwise. Rather, the article establishes that will and conscious intelligence are (some of the) attributes of the evolutionary force $F$, after it has already been established that the latter satisfies a defining attribute of God.

Here, then, is a correct formulation of the portion of the proof whose validity has been questioned by Abizadeh:

**Definition.** By “God” (i.e., the God of humanity) we shall mean whatever force or entity (if such exists) that is responsible for the existence of humanity (the human race) on this planet.

**Commentary.** Thus, according to this definition, “God exists” is logically equivalent to “There exists a force $x$, and $x$ is responsible for the existence of humanity on this planet.” (This is for the logical hardheads; we do not use existence as a predicate.)

**Premise 1.** There exists an evolutionary force, i.e., there is a(n) (unseen) force responsible for the process of evolution.

**Justification for Premise 1.** This is the conclusion established by the first part of my argument.

**Premise 2.** The existence of humanity on this planet is a consequence (result) of the process of evolution.

**Justification for Premise 2.** A highly validated observation statement (fact) of science.

**Premise 3.** Anything responsible for a process is also responsible for whatever results from the process.

**Justification for Premise 3.** Highly plausible logico-philosophical principle (essentially equivalent to the potency principle discussed in *Logic and Logos* 72).
Conclusion 1. The evolutionary force is responsible for the existence of humanity on this planet.

Justification for Conclusion 1. Follows by strict (classical) logical deduction from Premise 1, Premise 2, and Premise 3.

Conclusion 2. The evolutionary force is the God of humanity.

Justification for Conclusion 2. Follows by classical logical deduction from Conclusion 1 and our definition.

Conclusion 3. God exists.

Justification for Conclusion 3. Follows by classical logical deduction from Premise 1, Conclusion 2, and our definition.

This argument is incontestably logically valid. This means that anyone who rejects the conclusion must refute one of the premises or justify his or her rejection of our definition of God. In fact, clearly the only premise about which there can be much serious debate is Premise 1, and Abizadeh concedes (as have others) that my argument for Premise 1 is quite strong.

All of the above deals with what my argument establishes, but there are, of course, many things that it does not establish. To begin with, it does not establish the uniqueness of God. Other arguments are necessary to that end (see, for example, Logic and Logos 75). Nor does it establish that the evolutionary force has created everything that exists, i.e., that God is a (the) universal cause (see Logic and Logos 76). Nor does it provide any immediate, clear argument to the effect that God has created us out of love rather than as an idle display of divine power or (worse) in order to inflict gratuitous suffering upon us. (However, based on a few more plausible principles, a strong case can be made that the cohesion and complexity involved in the evolution of life forms constitute a physical expression of love, suggesting that our creator possesses love of a higher kind.)

None of this constitutes a defect in my proof, because the proof is based on only one phenomenon of reality, namely, biological evolution. It was not expected, nor as we have seen is it reasonable to expect, that we could infer all of the divine attributes from an analysis of this phenomenon alone. To establish other qualities and attributes of God, we need simply to examine other phenomena of reality such as human social evolution and the Manifestations of God (as Abizadeh notes and as I already mentioned in the last footnote in my article).

Even though social evolution and Progressive Revelation are objective phenomena entirely accessible to scientific method, the fact is that the methods of science have not yet been applied to these phenomena in a way that is universally recognized and accepted. I therefore chose, following 'Abdu'l-Bahá, to base my scientific proof on a phenomenon to which scientific method has been applied in a generally agreed-upon manner.

Thus, not only in the final portion dealing with the nature of God but also throughout, my proof uses the established scientific method of plausible reasoning. This method uses not only deductive but also inductive reasoning.
Pure deduction moves from general to particular, while induction moves from particular to general. The logic of plausibility is thus the product of a dialectic or dynamic consisting of both inductive and deductive moves: induction gives us plausible general principles, which then serve as hypotheses for chains of deductive reasoning. Now, whereas there exist precise, explicit rules of pure deduction, there exist no such rules for inductive logic (nor will such rules ever exist, for reasons that I explain in my article). Thus, the conclusions of a correct, pure deductive argument follow incontrovertibly from the hypotheses, but the conclusions of an inductive argument are not incontrovertible, only more or less probable.

The essence of scientific method is that it places a premium on accuracy (even sometimes at the expense of adequacy). Thus, in order to counterbalance the less than absolute certainty involved in its use of inductive reasoning, science deliberately operates on the minimalist principle of parsimony (Occam’s razor) according to which abstract forces and entities (and their qualities) shall be hypothesized only when their existence seems unavoidable to explain a given observed phenomenon. The force of gravity is a perfect example of an abstract (unseen) force whose existence survives the test of the parsimony principle.

Thus, when I characterize my proof of God’s existence as “scientific,” I mean at least two things: First, that I use plausible reasoning throughout and, second, that the existence of the evolutionary force (and the qualities I attribute to it) pass the test of the parsimony principle. Science does not seek to establish all of the possible attributes of an unseen force or entity. It seeks rather to establish whatever minimal attributes are strictly necessary to explain the observable effects of the force or entity. The fact that the willing and conscious nature of the evolutionary force passes this test of minimalism is therefore a strength of the scientific, evolution-based proof rather than a weakness, as might be inferred from the tone of some of Abizadeh’s comments.

In this connection, Abizadeh’s passing suggestion that “smart aliens” could constitute a plausible alternative to a hidden force as an explanation for evolution does not pass the parsimony test. In the light of the known facts of evolution, it is no more reasonable as an explanation for evolution than would be an appeal to aliens as an explanation for gravity.

Also, the comments in his footnote 6 and elsewhere show that Abizadeh has not correctly understood the analogical relationship my article makes between the evolutionary force and other known forces such as gravity. My article uses gravity as an example of an unseen force whose objective existence is scientifically established. The article does not state or imply that the evolutionary force is, in other respects, “akin to gravity” (70). Indeed, my article stresses rather the point that the evolutionary force is necessarily quite different from all other known forces (see page 13 of the original article).

Abizadeh worries about the comparative notion of “greatness” involved in one of my arguments concerning the nature of God. The notion is as follows: God is
plausibly greater than we in possessing any positive power (as opposed to a limitation) we have, but to a greater degree. This, He has already demonstrated to a remarkable degree by doing at least one thing we could never do, namely, producing us and the whole process of evolution that brought us into existence.

Abizadeh’s examples of the airplane or the computer do not constitute counterexamples to this principle. The human being did not create the airplane. We only discovered a way of implementing some of the pre-existing laws of aerodynamics (which we did not and could not create) in such a way that heavier-than-air flight became technically feasible. Similarly, our ability to realize computer technology depends essentially on the fact that objective reality is configured in a certain way and obeys certain laws that we did not originate. But the way we humans are configured, and the laws our nature obeys (including the subtle, inner nature of our consciousness and subjectivity), depend wholly on the action of the evolutionary force that created us.

However, let us consider briefly Abizadeh’s point that God is not just willing and conscious but infinitely willing and conscious. The following strong plausibility argument can be made in favor of this proposition:

The evolutionary force has created not only each individual human but also the whole of humanity. Thus, this one force should be plausibly greater than the whole of humanity and not just greater than any individual human. Now, we observe that such positive capacities as intelligence or will vary in human beings, without there being any apparent upper limit to the degree of these capacities. Even though the intelligence (say) of each individual human is finite and limited, the intelligence of humanity as a whole is not so limited: no matter how intelligent a human may be, it is possible for there to be another human even more intelligent. Since the degree of intelligence of the evolutionary force must be greater than that of all humans, it must be greater than every finite degree of intelligence and therefore of infinite degree.

For a more detailed and complete discussion of these and other methodological issues involved with proofs of the existence and nature of God, see my “Prologue on Proving God” in The Law of Love Enshrined, selected essays by John S. Hatcher and William S. Hatcher (Oxford: George Ronald, 1996). Indeed, a number of more detailed and complete arguments than those given in my article are possible, but they involve a thorough and systematic scientific discussion of such questions as the nature of human consciousness. I chose to avoid this in my article (just as I avoided detailed discussion of the neo-Darwinian theory of evolution) because I felt it would blur the otherwise clear and streamlined articulation of the argument as a whole. Perhaps, in the future and in another context, a detailed treatment of some of these issues will be useful.

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