Reason and the Bahá'í Writings

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Part I

1. Introduction

One of the hallmarks of the Bahá'í Writings is that they place an enormous emphasis on the power of reason. Indeed, few, if any, religious Scriptures have as much to say about reason as the Bahá'í Writings. While other religions such as Judaism, Christianity, Islam and Buddhism certainly have strong traditions of rational theology and philosophy – for example, Maimonides, Aquinas, Avicenna and Nagarjuna – these are *derived* and *inferred* from revealed Scripture. In contrast, the Bahá'í Writings themselves contain a large number of direct and indirect statements about the nature and importance of reason, as well as its appropriate uses and limitations.

The importance of reason in the Bahá'í Writings is directly emphasized in various ways which will be explored below. Let us begin with 'Abdu'l-Bahá's affirmation that "If a question be found contrary to reason, faith and belief in it are impossible, and there is no outcome but wavering and vacillation" [PUP 181]. That fact that reason is necessary for a steady faith makes the clear the fundamental importance of reason for the Writings. For now, it suffices to note 'Abdu'l-Bahá's declarations that "The foundations of religion are reasonable" [PUP 128] and that "If religion were contrary to logical reason then it would cease to be a religion and be merely a tradition" [PT 143]. In other words, reason is a sine qua non for religion to retain its identity as religion; it is an essential attribute of religion. Elsewhere, he that religion is "founded upon the premises and adds conclusions of reason, and both (religion and science) must bear its [reason's] test" [PUP 107]. Reason, in effect, is a touchstone by which we may distinguish true religion from superstition. The use of the imperative word "must" indicates not only an obligation to "test" or assess religion by reason, but also that religion is obligated to meet the standards of reason. Further emphasizing the essential nature of reason in religion, 'Abdu'l-Bahá asserts that "*in this age* the peoples of the world need the arguments of reason," [SAQ 7, emphasis added] indicating, thereby, that the contemporary world has a special need for teaching reason in religion.

To some extent, of course, the need for reason in religion occurs in any age insofar as the Bahá'í Writings view reason or rationality as a defining i.e. essential attribute of humankind:

The human spirit which distinguishes man from the animal is the *rational* soul, and these two names – the human spirit and the *rational* soul – designate one thing. [SAQ 208, emphasis added]

Consequently, all revelations appeal to rationality though to different degrees according to humankind's stage of development in the process of progressive revelation. The extraordinary importance of the "human spirit" or "rational soul" is emphasized by 'Abdu'l-Bahá's declaration that "the spirit of man is the most noble of phenomena ... the meeting between man and God" [PUP 239]. This assertion shows the "rational soul" has a special place in phenomenal creation and even a special spiritual status. From this we may infer that rationality, as an essential attribute of the soul, holds an exalted place the gifts bestowed upon humankind. Furthermore, Shoghi Effendi's intriguing reference to the "invisible yet rational God" [WOB 112] also points to a close link between religion and reason, though it should be remembered that the 'rationality of God' is not assessable to human thought. We know from Shoghi Effendi that God is rational, but as humans, we do not necessarily understand that rationality.

There are at least five reasons why the ubiquitous direct and indirect references to reason in the Writings require study. First, without such an examination, our understanding of the divine Texts will remain incomplete. For example, 'Abdu'lBahá's declares that "The foundations of religion are reasonable" [PUP 128; cf. 63] – i.e. that the very basis of religion is reasonable or rational – but that requires some understanding of the nature of reason and how it is exemplified in the Writings.

Second, self-knowledge also demands understanding of reason insofar as the human spirit and the "rational soul" are identical, as we have seen above. In short, humans have a divinely bestowed rational essence. As Bahá'u'lláh writes,

Consider the rational faculty with which God hath endowed the essence of man. Examine thine own self, and behold how thy motion and stillness, thy will and purpose, thy sight and hearing, thy sense of smell and power of speech, and whatever else is related to, or transcendeth, thy physical senses or spiritual perceptions, all proceed from, and owe their existence to, this same faculty. [GWB LXXXIII, p. 163; emphasis added]

The physical senses as well as the "spiritual perceptions" depend on the "rational faculty" and are informed by it. Bahá'u'lláh's statement also makes it clear that the spiritual aspects of our being are dependent on the "rational faculty" and, therefore, influenced by it. Clearly, without some knowledge of the soul's rational nature, we cannot fully understand our own nature.

Third, the requirements of effective teaching work in the modern world necessitate a better comprehension of reason in the Writings. Contemporary culture is increasingly shaped by science and the scientific method both of which put reason at a premium. This emphasis on rationality is reflected in 'Abdu'l-Bahá's assertion that "*in this age* the peoples of the world need the arguments of reason" [SAQ 7, emphasis added]. The phrase "in this age" draws attention to a special need for rationality in our time. This applies even to spiritual matters: "Therefore, it must be our task to *prove* to the thoughtful *by reasonable arguments* the prophethood of Moses, of Christ and of the other Divine Manifestations" [SAQ 11].

Fourth, the intended audience of the Writings is humankind as a whole which will study and learn from the models of reasoning given in the divine Texts. These models will influence the way humanity thinks about religion *per se*, about religious issues as well as about the other problems confronting us. It is, therefore, a matter of considerable significance to understand what the Writings say about reason, its nature, its uses and its limitations and how reason is exemplified in the Writings.

Fifth, Bahá'u'lláh's and 'Abdu'l-Bahá's statements identifying reason with the essence of humankind have far-reaching implications especially for the goal of unifying human kind into one global commonwealth. Because rationality is a universal aspect of humanity, a connective principle applying to all peoples and cultures across historical epochs and geographical barriers, it forms the basis for a positive global dialogue and a unified world order.

This paper concludes that the Writings make in-depth and far-reaching use of reason in four senses of the term: (1) the powers of reasoning, [PT 90] i.e. the "rational faculty" [GWB LXXXIII 163]; (2) 'reasonableness' as in thinking that is appropriate to its subject matter; (3) 'reasonableness' in the sense of not being random and having a purpose; and (4) the use of logic as in "logical reasoning" [SAQ 143, emphasis added]. The most extensively used aspect of reason is *logical* reasoning which is found in almost all explications of the Teachings and principles. Logical reasoning exemplifies what has traditionally been called 'Aristotelian' logic but is also referred to as 'classical' or 'standard logic.'¹ The pervasive presence of such logic should come as no surprise in light of the confirmation of a variety of Aristotelian concepts and arguments in the Writings.² Indeed, as noted in 'Abdu'l-Bahá, in London, 'Abdu'l-Bahá' had a deep knowledge of Aristotle's philosophy: "The talk [by 'Abdu'l-Bahá'] developed into a learned dissertation on the Philosophy of Aristotle" [ABL 95]. This suggests that 'Abdu'l-Bahá' thought Aristotelian philosophy important enough to discourse on it in some detail. We will, however, also examine whether the Writings include other forms of reasoning.

The first and major part of this paper explores how reason is defined and exemplified in the Bahá'í Writings. Portions of this part may strike some readers as overly technical in regards to logic, but this is unavoidable to cover the topic thoroughly. It also demonstrates the intellectual richness of the Writings. However, every effort has been made to reduce coverage of technicalities to an absolute minimum. The second part concerns itself with various issues surrounding this subject. These include standard logic and quantum science, standard logic and non-western logical systems, the preservation of diversity and standard logic, and post-colonial critiques of standard logic.

It must be emphasized that this paper concerns itself with a philosophical understanding of the Bahá'í Writings and does not in any way reduce the Writings to a "mere philosophy" [WOB 196]. A philosophical understanding studies the philosophical aspects of the Writings just as a historical understanding examines them from a historical point of view without reducing them to history. As divine revelation intended for humanity's future development, the Writings are multifaceted and thus, can be understood from many perspectives, without being diminished to any one of them. Thus, a philosophic study of reason in the Bahá'í Writings will help us broaden and deepen our understanding and appreciation as we seek to cultivate and develop our faith.

2. The Meanings of Reason and Rationality

In one of its meanings, 'reason' refers to a particular human power, capacity or ability: "the power of comprehending, inferring, or thinking especially in orderly rational ways."³ Reason, in this sense, is a 'power' or ability or faculty that humans possess. According to Bahá'u'lláh, this is the "rational faculty with which God hath endowed the essence of man ... [which] should be regarded as a sign of the revelation of Him Who is the sovereign Lord of all" [GWB LXXXIII 163] and which, as we have seen above, distinguishes humans from animals. As a particular human capacity, reason carries out such functions as analysis; argumentation, i.e. giving reasons and/or analysis; evaluation; application; synthesis; identification of cause and effect; abstraction; identifying purpose; analogizing; inferring; induction and deduction. It performs these operations in an orderly, step-by-step manner that others can follow and test for themselves.

We can observe many of these specific functions of reason in virtually all explications throughout the Writings. For example, it is obvious in 'Abdu'l-Bahá's discussion about why the human species undergoes no essential change in evolution, i.e. it does not change from one species to another as "[c]ertain European philosophers"⁴ claim. In the course of explication, 'Abdu'l-Bahá presents a critical analysis of the scientific view and then evaluates it, i.e. he assesses its merits and rejects it. What the scientists say is "not a proof of the change of species" [SAQ 191]. In so doing, he presents an argument for his alternative view, and gives reasons for accepting it [SAQ 191]. To strengthen his argument, he presents the *analogy* of the infant's development in the mother's womb from which he *infers* that despite physical changes in form, our human essence does not change. As part of explaining this analogy, he gives a purpose for this growth, i.e. to embody God's image [SAQ 191] in the world. This analogy is also a synthesis insofar as it integrates the concept of changes in bodily form with the concept of a stable, unchangeable human essence and spiritual nature. He uses induction in his references to specific creatures such as the serpent. Finally, he leads us to the principle from which we can deduce his teaching from a spiritual source, i.e. the Bible: "We will make man in Our image and likeness."⁵ Any reader of his talk can observe the careful step-by-step manner in which he constructs his argument.

A similar process can be observed in 'Abdu'l-Bahá's discussion of the Bahá'í teachings about the trinity. He says, "All have confessed that the question is *beyond the grasp of reason*, for three cannot become one, nor one three. To unite these is impossible; it is either one or three" [TAB3 512, emphasis added]. Consequently, the Trinity cannot be accepted as Christians understand it because it is irrational i.e. violates several logical laws as we shall see below. 'Abdu'l-Bahá performs a *reducto ad absurdum* argument by showing that any "division" in God would lead to an impossible conclusion since "division and multiplicity are properties of creatures which are contingent existences, and not accidents which happen to the self-existent [God]" [SAQ 113]. This conclusion is absurd because

God cannot be subject to accidental changes. Indeed, as we shall see below, the Christian concept of the trinity violates the logical laws of identity, of non-contradiction and the excluded middle. In the course of explicating the Bahá'í view, 'Abdu'l-Bahá *analyses* and *evaluates* Christian view and then *gives reasons* why an alternative explanation is needed. The first reason is that "For God to descend into the conditions of existence would be the greatest of imperfections" [SAQ 113] while the second is that the "Lordly Reality admits of no division" [SAQ 113]. He then presents an *analogy* and a logical *synthesis* to clarify his argument:

Now if we say that we have seen the Sun in two mirrors - one the Christ and one the Holy Spirit - that is to say, that we have seen three Suns, one in heaven and the two others on the earth, we speak truly. And if we say that there is one Sun, and it is pure singleness, and has no partner and equal, we again speak truly. [SAQ 113]

Thus, by using the capacities of human reason, 'Abdu'l-Bahá rationalizes, i.e. gives a rational, non-contradictory form to the doctrine of the Trinity. That which had hitherto been regarded as a 'mystery' beyond reasonable explanation receives a logically rational explanation. Significantly, he finishes his explication of the trinity by saying that either his explanation is true or

the foundations of the Religion of God would rest upon an *illogical proposition* which the mind could never conceive, and how can the mind be forced to believe a thing which it cannot conceive? A thing cannot be grasped by the intelligence except when it is clothed in an intelligible form; otherwise, it is but an effort of the imagination. [SAQ 113, emphasis added]

It is important to note that even when discussing a spiritual issue, 'Abdu'l-Bahá emphasizes that the mind cannot "conceive" of an "illogical proposition" i.e. cannot genuinely understand it and, therefore, cannot be expected to believe it. Moreover, even the "form" of a proposition must be "intelligible," i.e. reasonable and conforming to logic. It is no longer sufficient to call the trinity a 'mystery' and leave it at that. Moreover, this passage also shows that he does not accept the idea that the "Religion of God" could rest on illogical, irrational premises: "The foundations of religion are reasonable" [PUP 128]. We observe this principle at work in 'Abdu'l-Bahá's efforts to rationalize various Biblical passages such as those dealing with Adam and Eve: "if the literal meaning of this story were attributed to a wise man, certainly all would *logically* deny that this arrangement, this invention, could have emanated from an intelligent being" [SAQ 122].

It is worth noting that 'Abdu'l-Bahá's explication clearly demonstrates that rationality has a place in considering spiritual issues. In other words, the scope of rationality is not limited to the earthly phenomenal realm.

A second meaning of reason refers to 'being reasonable,' in the sense of thinking or acting appropriately. All things, actions or situations have an inherent nature or essence and our responses must be in harmony with this essence, or at least, must not offend against it. An action is reasonable or rational if it is appropriate to the essence of a situation or the object of the action. For example, under normal circumstances, it is not appropriate, and not reasonable to treat an adult like an infant or a crime like an act of charity; their essential natures are too different. Indeed, such treatment commits a logical error, a category mistake, i.e. in treating one kind of thing as if it were another kind of thing. Bahá'u'lláh, advises that a speaker should "deliver his words at the appropriate time and place" [TAB 172], i.e. that words should be in harmony with the nature of a situation and an audience. Words delivered as Bahá'u'lláh prescribes will inevitably be reasonable. 'Abdu'l-Bahá asks, "How can man be content to lead only an animal existence when God has made him so high a creature?" [PT 122] Underlying this rhetorical question is the premise that acting against our higher nature is unreasonable or inappropriate to our nature; it is a logical category mistake in which we illogically treat ourselves as something we are not. A similar idea underlies 'Abdu'l-Bahá's statement, "It is not reasonable that man should hold to the old tree, claiming that its life forces are undiminished, its fruit unequaled, its existence eternal" [PUP 141]. Here, too, we observe the concept of 'inappropriateness' at work; clinging to the "old" revelation is inappropriate and, therefore, unreasonable in light of its diminished vigor. By implication, accepting Bahá'u'lláh's new revelation is appropriate and reasonable.

The concept of reasonableness as appropriateness is the foundation of the doctrine of progressive revelation. 'Abdu'l-Bahá says, "All religious laws conform to reason, and are suited to the people for whom they are framed, and for the age in which they are to be obeyed" [PT 141]. The fact that revelations are "suited to the people for whom they are framed" means that they are appropriate and, therefore, reasonable. This supports 'Abdu'l-Bahá's statement that "The foundations of religion are reasonable" [PUP 128]. Religious law must be appropriate to the nature of the culture to which is applied. If they were not appropriate to the cultures for which they are revealed, such revelations would make no sense; it would be irrational to obey them. The statement that "religious laws conform to reason" can also mean that such law is consistent with standard logic. i.e. the logic of everyday experience. We shall explore this in greater depth below.

If a thought or action is appropriate and reasonable, it is also just. This principle underlies 'Abdu'l-Bahá's assertion, "Know that to do justice is to give to everyone according to his deserts" [SAQ 266]. In other words, justice is dispensing an appropriate or reasonable response to an act or statement. This may even apply to ourselves. Bahá'u'lláh's injunction, "Be fair to yourselves and to others" [GWB CXVIII 277, emphasis added] illustrates this. If we do not behave according to our nature, i.e. according to our essence, if we behave inappropriately to ourselves, we are not only being unreasonable or irrational but also being "unfair" to ourselves. We are diminishing ourselves. To be fair or just to ourselves we must treat ourselves according to our immortal spiritual nature and not our transient animal nature. This applies to intellectual justice as well. 'Abdu'l-Bahá declares that "I wish you to be fair and reasonable in your judgment, setting aside all religious prejudices" [PUP 364]. In other words, in order judge a subject in a "fair and reasonable" manner, we must judge it according to

its true, i.e. essential nature by setting aside inappropriate prejudices.

The third sense of reason or being reasonable refers to having a purpose. Actions that have no purpose are simply arbitrary and random and, therefore, are not informed or shaped by reason. This is one of the aspects of purpose that seems appropriate to Shoghi Effendi's reference to a "rational God" [WOB 112]. The Writings tell us that God had a purpose in creation: "the purpose of creation ... is the knowledge of Him Who is the Eternal Truth" [KA 176]. Creation is not "fortuitous" [SAQ 181] or accidental but is informed by a plan and purpose. Since creation has a purpose, it also has a certain consistency underlying and guiding its processes, which is to say, creation is fundamentally one. The Universal House of Justice makes this clear in its assertion that "there is a consistency in the universe."⁶

3. Reason as Logic in the Writings

In its fourth, technical sense - which we will explore in some depth - 'reason' refers to the use of logic which is often mentioned through the Writings. 'Abdu'l-Bahá states, "The human spirit consists of the rational, or logical, reasoning faculty" [TAB1 115, emphasis added]. The "human spirit," of course, is the rational soul which is identified here as a "logical reasoning faculty" which distinguishes humanity from animals [SAQ 208]. This identification of reason with logical thought also applies to religion: "If religion were contrary to logical reason then it would cease to be a religion and be merely a tradition" [PT 142]. In short, religion must not violate "logical reason." The association of 'reason' and 'logic' are also seen in statements like the following: "By intellectual processes and logical deductions of reason this superpower in man can penetrate the mysteries of the future and anticipate its happenings" [PUP 49, emphasis added]. We must note that reason is described as a "superpower" that transcends nature and, therefore, reveal its secrets. He also declares.

If we insist that such and such a subject is not to be reasoned out and tested according to the *established* *logical* modes of the intellect, what is the use of the reason which God has given man? [PUP 63, emphasis added]

In other words, all subjects – mundane or spiritual – must be "reasoned out" i.e. examined by such rational procedures as analysis, inference, extrapolate as well as "tested" by logical reason. Failing to do so is neglect of the divine gift of reason bestowed on humankind. Conversely, the gift of reason imposes on us an obligation to use it.

The reference to the "established logical modes" is significant because it suggests that 'Abdu'l-Bahá is thinking of the kind of logical reasoning that is generally established in Europe and America at the time. Hegel's dialectical logic was not generally used, and other developments in non-standard or non-Aristotelian logic were only beginning and were still the province of specialists in a few universities. Thus, 'Abdu'l-Bahá's reference to the "established logical modes" is most likely to Aristotelian or standard logic which had widespread use. Indeed, 'Abdu'l-Bahá believed that Aristotelian logic was globally known: "Today the philosophy and logic of Aristotle are known throughout the world" [PUP 327]. Given that belief, it makes sense for him to make considerable use of Aristotelian logic in the Writings since it would help the Teachings reach a world-wide audience. Furthermore, 'Abdu'l-Bahá marks Aristotle for special praise because he was "interested in both natural and divine philosophy" which is one of the reasons for the survival of his teachings [PUP 327].

Standard, classical or Aristotelian logic is based on three rules: the law of identity; the law of non-contradiction and the law of the excluded middle. We shall examine in some depth how each of these laws is exemplified in the Bahá'í Writings.

3.1 The Law of Identity (LI)

Logical reasoning and all coherent discourse must obey the law of identity (LI) according to which at any given moment, a thing, situation, or process is the same as itself and not something else. A thing can only have one identity, not two at the same time in the same sense and in the same context: a cactus cannot be a dinner plate, and a horse cannot be a crescent wrench. Of course, a thing may have a variety of characteristics -a horse may be brown, with white feet and a variegated tail - but these characteristics are parts of its existence as a single, specific thing.

When applied to discourse, i.e. discussions and explanations, the LI means that terms must be used consistently; if words change their meanings or slip from one sense of a word into another, confusion ensues and understanding becomes impossible. We are all familiar with disagreements caused by people using a word in different senses, e.g. gendered and ungendered uses of the word 'men.' The statement 'All people are equal' is another example. We must, for example, be careful to use the word "equal" consistently, i.e. not slip from spiritual to legal to economic to sociological equality. We may, of course, discuss how these distinct forms of equality are related but we cannot conflate one meaning into another. In this sense, the Writings, like every other explicatory text, follow the LI.

More important, the Writings apply the LI to a number of metaphysical and spiritual teachings. For example, the principle of identity underlies the Bahá'í teachings about the unique existence of all things, i.e. the teaching that each thing is what it is and never has been or will be something else 'Abdu'l-Bahá also applies the LI when he says, "in the sensible world appearances are not repeated" [SAQ 282, emphasis added]. He informs us that no two seeds of grain are alike. Elsewhere he applies this principle to the sun: "the sun is one in its essence, unique in its real identity, single in its attributes" [TAB1 117]. We also observe the LI exemplified in the teachings about human evolution; as noted in a foregoing discussion, 'Abdu'l-Bahá declares that humans have always been human despite any animal-like appearances in their outward form. The human essence or identity has not changed, i.e. is itself and nothing else despite variations of outward form or which of its inherent potentials it exhibits. The identity or essence of a thing is stable.

This principle even applies to things involved in processes. For example, 'Abdu'l-Bahá sees humankind as involved in an evolutionary process but, as we have seen above, he is emphatic that the human essence is always the same regardless of our stage of development: [PUP 358] "Throughout this journey of progression [through the mineral, plant and animal stations] he has ever and always been potentially man" [PUP 225]. The inner potentials of our essence are present from the beginning and are actualized or externalized over time – which only makes it *appear* as if a change in essence or identity had occurred. In his potential, i.e. in his essence "Man from the beginning was in this perfect form and composition"⁷ These ever-present potentials are revealed over time.

'Abdu'l-Bahá makes theological use of the LI in his argument to explain the impossibility of reincarnation. This is important because it clearly demonstrates that he does not see the laws of logic as applying only to worldly or empirical matters but also to spiritual matters. He states that a rose's "specific identity can never return" [SWAB 184]. The general or essential qualities that return are shared by all roses but they do not return in the unique form of one particular rose; that rose is what it is, and cannot be replaced by anything else. Its "intrinsic elemental reality" [PUP 421] is absolutely unique. He applies the same principle to the return of Elijah [SAQ 134].

Another theological or spiritual application of the LI is found in 'Abdu'l-Bahá's discussion of the Trinity.

If we say that the Trinity was originally one and was later divided, change and transformation will be necessarily applied to the Essence of Oneness, and change and transformation are necessities of the contingent world and not of the Essence of Divinity. [TAB3 512]

He faults this argument with violating the LI. God, Who is the "Essence of Oneness" cannot be divided and changed; to derive the doctrine of the trinity from such a division denies God's identity with Himself, and is, therefore, a logical error. It violates the LI by treating God as if He were an ordinary being subject to division, time and space.

3.2 The Law of Non-Contradiction (LNC)

The second - and central - law of standard, classic or Aristotelian logic is the law of non-contradiction (LNC). In general terms, this means that a statement cannot simultaneously make two contradictory claims about the same issue. More technically, the LNC says that a thing cannot have and not have the same attributes at the same time in the same sense and from the same perspective or context. We cannot weigh 180 pounds and not weight 180 pounds at the same time, in the same sense and in the same context i.e. our place on earth. On the moon, we would only weigh 29.8 pounds, but that is the result of a change of context or perspective. Another example: an act cannot simultaneously be just and unjust in the same sense and from the same viewpoint. However, we can argue that a punishment is just from the perspective of a person's act, but unjust from the viewpoint of the person's deficient mental capacity.

The Writings' strong commitment to the LNC is based in an equally strong commitment to the unity of truth. Since truth is one, it cannot be divided by contradictions because these fracture truth into mutually exclusive parts. As 'Abdu'l-Bahá affirms, "No one truth can contradict another truth" [PT 136]. This pithy statement is the essence of the LNC and logically obligates us to resolve contradictions to avoid clashing truths. The same may be said of the declaration that "truth or reality is not multiple; it is not divisible" [PUP 106]. This is further reenforced by his assertion that "truth is one, although its manifestations may be very different" [PT 128, emphasis added]. Differences in the "manifestations" of truth do not necessarily imply logical contradictions which `Abdu'l-Bahá seeks to avoid. Here, too, is an implied obligation to resolve apparent contradictions. Shoghi Effendi re-affirms this theme, saying, "Truth may, in covering different subjects, appear to be contradictory, and yet it is all one if you carry the thought through to the end"8 which he emphasizes by asserting that "Truth is one when it is independently investigated, it does not accept division" [JWTA 35]. Again, we detect the implied obligation to "carry the though through to the end" in order to resolve contradictions and, thereby, comply with the LNC.

There are two main ways of resolving a contradiction to comply with the LNC: the first is to eliminate one part of the contradiction; the second is to show that each statement is refers to a different perspective, or a different sense or time; and the third is to demonstrate an underlying unity. 'Abdu'l-Bahá applies the first method in his philosophical argument for the unity of God:

For the realities of the Essence of Unity, knowledge, and the things known, have an absolute unity which is real and established. Otherwise, the Essence of Unity would become the place of multiple phenomena ... which is absurd. [SAQ 291]

In other words, God, the "Essence of Unity" cannot at the same time and in the same sense be both one and multiple. It is worth noting that he declares the denial of the LNC in this case to be "absurd," i.e. irrational and, therefore, not only beyond human thought or conception [SAQ 114] but also to be avoided. In addition, he follows this method when dealing with the contradiction between accepting God as an "Ultimate Cause" and asserting that a causal process can go on forever without God. He dismisses the second alternatively as "manifestly absurd" [TAF 18]. In logical terms, He is saying that the causal sequence of creation cannot both go on forever and not go on forever, i.e. end with God. By dismissing one alternative, He enjoins the other.

Generally, resolving contradictions by taking viewpoint/context, time and sense into consideration allows us to reconcile the conflicting sides insofar as conflict is eliminated thereby allowing us to accept the truth of both sides. This allows us a more inclusive view that encourages acceptance of complexities and nuances. In *The Seven Valleys*, Bahá'u'lláh illustrates the first – and more commonly used in the Writings – alternative of resolving contradictions by referring to different perspectives.

let thine Eminence consider his own self; thou art first in relation to thy son, last in relation to thy father. In thine outward appearance, thou tellest of the appearance of power in the realms of divine creation; in thine *inward being t*hou revealest the hidden mysteries which are the divine trust deposited within thee. [SV 26]

Bahá'u'lláh reconciles these contradictory differences – first, last; outward, inward – not by asserting relativism but by correlating these contraries to differences in viewpoint or perspective, i.e. "in relation to" father and son; and to "outward appearance" and "inward being." Nowhere does He suggest that the father can be both first and last in "relation to [the] son." In regards to time sequence, "firstness" is the only possible relationship. Here is another example of Bahá'u'lláh modeling this method of resolving contradictions:

Wonder not, if my Best-Beloved be closer to me than mine own self; wonder at this, that I, despite such nearness, should still be so far from Him.... Consider what God hath revealed, that "We are closer to man than his life-vein". By this he meaneth that his heart, which is the seat of the All-Merciful and the throne wherein abideth the splendor of His revelation, is forgetful of its Creator. [GWB XCIII 185, emphasis added]

From the perspective of our human spiritual condition, we can be distant from God, whereas ontologically, from the perspective of our dependence on God as the pre-condition for our existence, God is "closer to us than our own selves. Once this shift is taken into account, the contradiction is harmonized with the LNC.

What the foregoing examples teach us is that the LNC readily accommodates seemingly contradictory statements made from different perspectives or viewpoints. However, while differences of perspective are quite compatible with Aristotelian or standard logic,⁹ they do not necessarily imply relativism. Relativism allows contradictory truth-claims – even from the same perspective – because there supposedly is no ultimate standard by which to judge between various truthclaims. Thus, all truth-claims must be accepted. Standard logic rejects contradictory truth-claims from the same perspective since they cancel each other out. My chair cannot be under me

and not under me at the same time, in the same sense from the same perspective or context. Similarly, because the spiritual and physical perspectives are different, there is no violation of the LNC in claiming that spiritually, humans are the acme of creation [GWB XC 177; cf. GWB XC 179] while at the same time claiming that physically "the animal is nobler, more serene, poised and confident" [PUP 184]. The statements come from the spiritual and physical perspectives, and, therefore, do not contradict each other. Another example: 'Abdu'l-Bahá uses differing perspectives to resolve the contradiction between sophists who claim the external world is "an absolute illusion" [SAO 278] and those who claim the external world is real. He says that from God's perspective, our existence is an "illusion," but from our own perspective, it is not. In this case, he uses the difference of perspective to synthesize apparently conflicting beliefs. Similarly, he informs us that while a scorpion is evil from the perspective of man, it is not evil from its own perspective [SAQ 263] thereby reconciling two seemingly conflicting views.

It is essential to understand that the principle of the LNC also applies to religion and spiritual issues. Bahá'u'lláh teaches that "the foundation of all the religions of God is one; that oneness is truth and truth is oneness which does not admit of plurality" [PUP 454, emphasis added]. In logical terms, truth cannot have the attribute of oneness and not have this attribute (i.e. be multiple) in the same sense etc. By returning to the foundations we recover the lost oneness of truth because we resolve any contradictions: the "unity of truth, through the power of God, will make these *illusory differences* [among religions] to vanish away" [SWAB 30, emphasis added]. Here, too, the LNC is affirmed insofar as differences, including contradictory differences, will be dissolved. The "different religions have one truth underlying them; therefore, their reality is one" [PUP 106]. If their "reality is one," they cannot be contradictory. 'Abdu'l-Bahá makes a similar affirmation in regards to science, reason and religion: "weigh carefully in the balance of reason and science everything that is presented to you as religion. If it passes this test, then accept it, for it is truth" [PT 144, emphasis added]. Instructing us to use the "balance of reason" includes employing the tools of

logic. If an idea cannot pass this test, "reject it, for it is ignorance!" [PT 144]

By following Bahá'u'lláh's and 'Abdu'l-Bahá's example, we can resolve even seemingly intransigent contradictory statements. One of the most challenging is Bahá'u'lláh's declaration about the origin of creation:

The world of existence came into being through the heat generated from the interaction between the active force and that which is its recipient. These two are the same, yet they are different. [TB 140]

The statement appears to violate the LNC insofar as it says these two forces are "the same, yet ... different." However, there is no self-contradiction in saying that these two are the same in origin and substance but are different in form and function. In terms of origin and substance they both instantiations of God's Will, while in terms of form and function one is active and the other is receptive. In either case, they are manifestations of God's Will. We may also analyze this paradox with the aide of the Writings endorsement of Aristotle's four causes: the material, efficient, formal and final causes [SAQ 280]. Both the active and passive parts share a material cause, i.e. a substance which is a manifestation of God's Will; in this sense they are alike. However, they differ formally, i.e. in form and, therefore, they differ in function. Yet, they are alike vis-à-vis their efficient cause which is God Who brings them into existence and is the origin of their action. Finally, they are alike in their final cause - which is creation - by means of the "heat" or energy released by their interaction. In both of these interpretations, the contradiction has been settled by observing that different perspectives explain the otherwise contradictory attributes.

Interestingly, two real-life phenomena illustrate this situation. The first, and clearer of the two is magnetism. Every magnet has two poles, i.e. it is one thing or substance but always has two polar opposite functions which generate an electromagnetic field just as the active and receptive forces generate the heat "from which existence [comes] into being." The second example is water. Both ice and steam have the same substance, i.e. water, yet these two obviously differ in form and function, and in these different forms can also interact.

3.3 The Law of the Excluded Middle (LEM) in the Bahá'í Writings

The Bahá'í Writings are consistent with the LNC and, therefore, exemplify a two-value logic – the two values being 'true' and 'false.' The law of the excluded middle (LEM) says that a statement or its negation must be either true or false: either an elephant is heavier than a flea or an elephant is not heavier than a flea. There is no middle ground and one of these two propositions *must* be true. (The difference between the LNC and the LEM is that the LNC says no proposition can be *both* true and false, and the LEM says that a statement or its specific negation *must* be *either* true *or* false.) There is no middle ground between them.

The Writings, of course, are not a logic and philosophy text, but they contain numerous passages which are consistent with the LEM's principle that there is no middle ground between a proposition and its negation. For example, 'Abdu'l-Bahá says, "This is the Truth and beyond the Truth there is only error" [TAB1 115]. In other words, a statement is either true or not true - and by implication, we must choose one or the other. There is no valid third alternative. The same thinking underlies statement as such as "This is the truth and there is nothing beyond the truth but manifest error" [TAB2 304] as well as "This is the truth and there is naught beyond the truth save error" [TAB3 524]. By asserting that 'outside' the truth there is only "error" or falsity, these statements affirm the principle of the LEM that there is no middle ground between falsity and truth. It also implies that we must choose one or the other. The same is true of the following statement: "Verily this is the truth and naught is there beside the truth but manifest error" [TAB 25]. According to 'Abdu'l-Bahá we should all have "a sword which divides truth from falsehood" [TAB1 166]. This metaphor shows a clear division between true and false without any suggestion of a middle ground; moreover, the rigor of the language used strongly suggests we are obligated to choose between the two.

Two-value reasoning also applies to theological matters. Speaking of Christ, 'Abdu'l-Bahá says, "The sword [Christ] carried was the sword of His tongue, with which He divided the good from the evil, the true from the false, the faithful from the unfaithful, and the light from the darkness" [PT 55, emphasis added] He also says, "When Christ appeared, He possessed a sword; but it was the sword of His tongue with which He separated the false from the true" [PUP 292, emphasis added]. Referring to Biblical issues, 'Abdu'l-Bahá asks, "Question: How shall we determine the truth or error of certain biblical interpretation?" [PUP 212] We observe the principle of the LEM at work in these choices between negations.

The same rigorous division between truth and error is observed in Bahá'u'lláh's statement that "This, verily, is the truth, and all else naught but error" [GWB CXX 255]. The unmistakable implication here, as in all other such statements, is that we should choose truth. Bahá'u'lláh also says, "Behold how the divine Touchstone hath, according to the explicit text of the Book, separated and distinguished the true from the false" [KI 227, emphasis added]. Third alternatives are clearly excluded as they are in His statement that one of the tasks of the Manifestations is to ensure that "the true should be known from the false, and the sun from the shadow" [KI 53, emphasis added; cf. KI 228]. In other words, the mission of the Manifestations is to help humans distinguish between truth and falsity and to choose one or the other. There is no suggestion that we evade such choices by trying to find a middle ground. Indeed, God tests our ability to distinguish "truth from falsehood ... guidance from error" [KI 8; cf. KI 202, 221]. As required by Aristotle's definition of the LEM, each of these terms is a negation of the other, e.g. happiness and misery, "guidance and error."

As we have shown, 'LEM-statements,' i.e. statements that demand either affirmation or denial without recourse to an alternative or 'middle' are consistently found throughout the Writings. For example, in discussing the trinity, 'Abdu'l-Bahá asserts "for three cannot become one, nor one three. To unite these is impossible; it is either one or three" [TAB3 512]. God is one or not. God is three or not. There is only one correct answer in each proposition – which is that God is one and He is not three. In criticizing the doctrine of the trinity, 'Abdu'l-Bahá is, in effect, asserting that no middle ground exists, i.e. that the Christian view of God as being one and three is false, i.e. a violation of the LEM. Here is another example: "Absolute repose does not exist in nature. All things either make progress or lose ground. Everything moves forward or backward, nothing is without motion" [PT 88]. 'Abdu'l-Bahá clearly eliminates any middle ground – that repose exists – and gives us a choice between progress and not making progress. The LEM is also applied to spiritual or theological issues: "Now, either one must say that the Blessed Beauty hath made a mistake, or He must be obeyed" [SWAB 214]. Once again, the middle ground has been eliminated. In logical form, this argument reads as follows: Bahá'u'lláh has made a mistake or He has not made a mistake; if He has not made a mistake, He must be obeyed and if He has made a mistake, He must not be obeyed. One of the two alternatives must be accepted.

There are also other forms of the LEM statements in the Writings. These are statements about the existence of God, the existence and immortality of the soul, progressive revelation and the essential infallibility of the Manifestation. The Writings leave no room between accepting these teachings as divine revelation or rejecting them outright. For example, "The human spirit which distinguishes man from the animal is the rational soul" [SAQ 208] is a LEM statement that is either true or false. Either the human spirit is the rational soul or it is not. Even to have a degree of rationality is to have rationality. Of course, LEM statements can be interpreted by different readers, but such interpretation must rest on either acceptance or rejection. Appearances to the contrary, agnosticism is not a viable middle ground since agnosticism is a statement of one's inner mental condition and not a statement about the propositions themselves.

In reflecting on the LEM in the Writings, we should not be misled by apparent paradoxes which seem to undermine it. For example, in order to explain why He does not, contrary to the custom in Persian writing, use numerous quotations, Bahá'u'lláh quotes, If Khidir did wreck the vessel on the sea,

Yet in this wrong there are a thousand rights. [SV 26]

At first glance, it seems as if right and wrong were conflated to make some middle ground between them. This does not necessarily follow. Rather than conflating the two and positing a hypothetical middle ground, it is more logical to say that the "wrong" is, indeed, "wrong" in itself, but that it has some "right" consequences. Because an act and its consequences are not the same things, there is no logical necessity to interpret this example as violations of the LEM.

4. The Principle of Sufficient Reason

In addition to the three laws of standard logic, the Writings also implicitly employ the principle of sufficient reason (PSR). According to this principle there must be a necessary and sufficient reason why every thing or event is what it is and not something else. All of science is based on the PSR since science is a quest for necessary and sufficient reasons why certain events happen and why they happen in the way they do. All humans, regardless of culture or historical time, implicitly or explicitly use the PSR insofar as they 'troubleshoot' problems, i.e. try to find the causes of problems. A potter seeking to know why a pot shattered in a fire, uses the PSR to explain and correct the problem.

'Abdu'l-Bahá appeals to the PSR when he says that the order and complexity of nature "is the creation of God, and is not a fortuitous composition and arrangement" [SAQ 181]. In other words, physical nature alone does not meet the PSR, i.e. it is not sufficient to explain its own existence, order, composition and arrangement. Thus all purely naturalist/materialist explanations are incomplete. 'Abdu'l-Bahá confirms this, saying, "The divine philosophers declare that the world of nature is incomplete" [PUP 329]. Precisely because physical nature cannot explain itself even in principle, logic forces us to posit something else that transcends physical nature as a sufficient cause. Elsewhere, 'Abdu'l-Bahá amplifies this argument by appealing to God as the only sufficient reason or explanation for the order in the universe:

were it not for this *Director*, this *Co-ordinator*, the universe would be flawed and deficient. It would be even as a madman; whereas ye can see that this endless creation carrieth out its functions in perfect order ... it is clear that a Universal Power existeth, *directing* and *regulating* this infinite universe. *Every rational mind can grasp this fact*. [SWAB 48, emphasis added]

'Abdu'l-Bahá's final remark is significant because he associates his argument which is based on the PSR with rationality itself. Not paying attention to the PSR which provides the logical foundation of his argument, is a failure in rationality itself. Another demonstration of the PSR is 'Abdu'l-Bahá's argument to show the necessity for God by means of a First Mover. There must be a First Mover because no sequence of causation can go on forever. He rejects the concept that a causal series can be infinite:

to maintain that *this process goes on indefinitely is manifestly absurd.* Thus such a chain of causation must of necessity lead eventually to Him who is the Ever-Living ... the Ultimate Cause. [TAF 18]

an infinite causal sequences 'Abdu'l-Bahá rejects as "manifestly absurd," though he does not specifically say why. However, the reasons are not hard to fathom. Explaining the existence of contingent beings by even more contingent beings leads to an infinite regress which explains nothing and can only be stopped by an "Ultimate Cause" that is not Itself a contingent being. Second, an infinite causal sequence has the "present problem." If the causal sequence is made up of an infinity of individual causal acts, how can it ever arrive at the present? There are an infinite number causal acts between each causal act.¹⁰ Third, how can there be an infinite, i.e. indefinite number of individual things or acts? Any collection of individual things/acts, must be definite, countable, though it may of course be very large. This renders the notion of an infinite causal chain implausible.

In the Writings, there is another aspect to the PSR based on the Bahá'í theory of causality which explicitly confirms Aristotle's four causes: material, efficient, formal and final [SAQ 280, emphasis added]. According to 'Abdu'l-Bahá, a chair has a material cause, i.e. wood; an efficient cause, i.e. the carpenter; a formal cause, i.e. a plan, or the way the parts are put together; and a final cause i.e. the reason(s) for building the chair. This final cause activates and guides the other three causes. Without it, there is no PSR for building the chair in the first place. Since all "phenomena are preceded by causes," [SAQ 280] it follows that all things have a PSR or final cause. For humans, this PSR is explicitly noted in the Noonday Prayer: "I bear witness that Thou hast created me to know Thee and to worship Thee." It is also implicitly contained in Bahá'u'lláh's statement that "All men have been created to carry forward an ever-advancing civilization" [GWB CIX 214]. No explanation of natural phenomena that fails to include a final cause or satisfy the PSR is complete or valid. For example, 'Abdu'l-Bahá says, "For the noblest part of the tree is the fruit, which is the reason of its existence. If the tree had no fruit, it would have no meaning" [SAQ 196-197; cf. PT 98]. Without the fruit, the tree lacks a sufficient reason to exist. This has enormous implications for the practice of science which seeks to make its explanations as complete as possible but is averse to the concept of final causes.

5. Deductive Reasoning

Standard logic provides the basic laws that correct reasoning must obey regardless of whether our reasoning methods or procedures are deductive, inductive, analogical or Socratic dialectical. We shall now examine how the Writings make use of these methods.

Deductive reasoning begins with a general or universal statement and then deduces specific consequences entailed in the general statement. For example, the universal statement 'All birds have two wings' entails the conclusion that 'My parrot has two wings.' This conclusion follows the LI, the LNC and the LEM. My bird cannot both have and not have two wings; it must be either true or false that it has two wings. Deductive reasoning is especially suited to the Writings because it depends primarily on the truth of the initial universal statement. This makes deduction the appropriate mode of reasoning for those in authority with completely trustworthy knowledge. Unlike scientists still looking for the truth, the essentially infallible Manifestation and His interpreter (who has acquired infallibility) are able to give us absolutely reliable universal propositions – e.g. humans are made in God's image – from which we can draw specific conclusions. Their universal propositions provide the guidance we need for our own reasoning process so that we do not wander too far from the truth.

Deductive arguments can be presented formally as one or a series of syllogisms, i.e. a three-part argument in which a conclusion is inferred from first two premises. Here is the most famous deductive syllogism in western philosophy.

- 1) All humans are mortal;
- 2) Socrates is human;
- 3) Therefore, Socrates is mortal.

The conclusion is implicitly embedded or entailed in the first universal premise. If the first two premises are true, the conclusion is necessarily true; no other answer is logically possible without violating one of the rules of reasoning. The conclusion can only be challenged by disproving the first and/or second premises. If 'Socrates' is my cat, the syllogism is false.

We must also realize that all universal premises are embryonic syllogisms, i.e. fully developed syllogisms can be inferred from them. The second premise and conclusions are implied but easily 'unpacked.'¹¹ For example, to say that "All humans are mortal" automatically includes every individual human being. The syllogistic form is simply an efficient way of 'unpacking' the implicit steps to a conclusion. Take, for example, Abdu'l-Bahá's declaration that "[t]he human spirit which distinguishes man from the animal is the rational soul" [SAQ 208]. This is a universal premise about all humans, which includes everyone, including our friend, Bill. A syllogism makes this clear:

- 1) The human spirit distinguishes man from animal;
- 2) Bill has a human spirit, i.e. is human;
- 3) Therefore, Bill is distinguished from animals.

Wherever we find a universal premise in the Writings (or any other work) we can test its conclusion by putting it into syllogistic form.

We shall use syllogisms to illustrate the careful deductive structure of the arguments presented in the Writings. Although the Writings do not contain any formalized deductive syllogisms as shown above, many of the arguments they present have a syllogistic structure embedded in them. A well known example of an explicit universal statement from the Writings is, "All men have been created to carry forward an ever-advancing civilization ... To act like the beasts of the field is unworthy of man" [GWB CIX 214], from which Bahá'u'lláh immediately draws the conclusion that we should not behave like animals. The core logical argument can be expressed as a syllogism:

- 1) "All men have been created to carry forward an everadvancing civilization;"
- 2) Behaving like beasts will not advance a civilization;
- 3) Therefore, humans should not behave like beasts. ("To act like the beasts of the field is unworthy of man.")

Of course, we must emphasize that Bahá'u'lláh Himself is not dependent on such deductions for His knowledge and understanding. However, he uses this form as a pedagogical tool to help us grasp His teachings.

Deductive reasoning does not necessarily use the word "all" or "every" explicitly in its general or universal statements, but "all" or "every" must be implied. That is what makes them universal. For example, 'Abdu'l-Bahá says, thou wilt see that a lower plane can never comprehend a higher. The mineral kingdom, for example, which is lower, is precluded from comprehending the vegetable kingdom... [SWAB 46]

There is a syllogism using an implied universal premise and syllogism embedded in this passage.

- 1) "A lower plane can never comprehend a higher";
- 2) The "mineral kingdom ... is lower";
- 3) Therefore, the mineral kingdom cannot comprehend the vegetable kingdom.

Putting 'Abdu'l-Bahá's arguments into syllogistic form can be quite a laborious step-by-step procedure which is probably why 'Abdu'l-Bahá does not do it. It would quickly prove tedious. However, what is important is that it can be done in order to reveal the rigorous logical structure underlying his and Bahá'u'lláh's arguments. This provides demonstrative support to show that the doctrine that the Teachings are reasonable.

The use of deductive reason includes both "spiritual proof[s]" [SAQ 197] and logical proofs. 'Abdu'l-Bahá identifies the following as a "spiritual proof," i.e. one that does not depend on empirical knowledge.

it cannot be said there was a time when man was not ... from the beginning which has no beginning, to the end which has no end, a perfect manifestation always exists. This man of whom we speak is not every man; we mean the perfect man. For the noblest part of the tree is the fruit, which is the reason of its existence; if the tree had no fruit, it would have no meaning. Therefore it cannot be imagined that the worlds of existence ... were without man! [SAQ 196]

The core of 'Abdu'l-Bahá's explanation, parts of which expressed metaphorically, can be formalized in the following syllogism:

- 1) The "Perfect Man" is the final cause ("noblest part") of existence;
- 2) The "worlds of existence" require a final cause;
- 3) Therefore, there can be no world without the "Perfect Man."

Of course, 'Abdu'l-Bahá supplements this argument with considerably more details than we find in the syllogisms, but the two foregoing deductive syllogisms represent the logical heart of his argument.

What follows is an example of what 'Abdu'l-Bahá calls "the logical evidences for the immortality of the soul" [SAQ 228].

The logical proof of the immortality of the spirit is this, that no sign can come from a nonexisting thing – that is to say, it is impossible that from absolute nonexistence signs should appear – for the signs are the consequence of an existence, and the consequence depends upon the existence of the principle. So from a nonexisting sun no light can radiate ... [SAQ 225]

In this and the subsequent passages, 'Abdu'l-Bahá goes to extraordinary lengths to show how the soul or spirit can operate without the body. If we focus on the main ideas to be proved in his detailed argument, we can detect two central deductive syllogisms at work. The first proves the existence of the spirit and the second, the spirit's immortality.

- 1) All things that exist show signs of existence ("No sign can come from a nonexisting thing");
- 2) The spirit shows signs of existence;
- 3) Therefore, the spirit exists

and

1) All things that depend on the physical body to exist cannot survive the dissolution of the body;

- 2) The spirit (which exists) does not depend on the physical body for existence;
- 3) Therefore, the spirit can survive the dissolution of the body i.e. is immortal.

These two deductive syllogisms represent the formal structure of 'Abdu'l-Bahá's argument. Of course, he goes into far more detail than these core syllogisms but the logical nucleus of his argument is readily apparent.

The other common form of deductive reasoning has its first premise in the conditional i.e. 'if-then' form. For example, here is a passage from *Paris Talks*:

I say unto you: weigh carefully in the balance of reason and science everything that is presented to you as religion. *If* it passes this test, *then* accept it, for it is truth! *If*, however, it does not so conform, *then* reject it, for it is ignorance! [PT 144]

The formalized logical argument embedded in this statement can be written as follows:

- 1) If statement X is presented "as religion";
- 2) X passes the test of reason and science;
- 3) Therefore, we must accept X.

There are numerous examples like this throughout the Writings.¹²

We have demonstrated that deductive reasoning is pervasive throughout the Writings and that it is rigorous enough to be formalized in syllogistic form. This demonstrates that careful logical reasoning is embedded in the Texts which not only advocate but also practice reason. This point becomes more salient when we realize that deductive reasoning follows the four laws of classical reasoning we have discussed.

6. Inductive Reasoning

Instead of working from the top down, as deduction does, inductive reason works from the bottom up and draws general or universal conclusions on the basis of specific examples. We observe that in the past, ants were always attracted to the food at our picnics, and conclude that ants are attracted by picnic food. Unlike deductive conclusions which are logically certain, inductive conclusions have only a degree of probability. For example, we could improve the probability of our conclusion by observing 20,000 picnic sites instead of six. 'Abdu'l-Bahá inductive reasoning when he writes, "Also illustrates [humankind] bringeth to light the past events that have been lost to memory, and foreseeth by his power of *induction* future happenings that are as yet unknown" [TAF 11, emphasis added]. In other words, on the basis of past events, we can reach a conclusion about future events or likely future events. This is exactly what science does which studies numerous examples of a phenomena and then reaches a conclusion. Elsewhere 'Abdu'l-Bahá says that "through processes of inductive reasoning and research" [PUP 50] we can learn a great deal about humanity. In other words, we learn from or conclude from specific individual events

The Writings nonetheless show us many examples of induction in practice. For example, here is a complete inductive argument with its conclusion stated at the end:

But when you look at Nature itself, you see that it has no intelligence, no will. For instance, the nature of fire is to burn; it burns without will or intelligence. The nature of water is fluidity; it flows without will or intelligence. The nature of the sun is radiance; it shines without will or intelligence ... Man is able to resist and to oppose Nature because he discovers the constitution of things ... all the inventions he has made are due to his discovery of the constitution of things ... It is evident, then, that man rules over Nature. [SAQ 3, emphasis added]

Because humans have knowledge and the will to resist nature which has no will of its own, "man rules over nature." This example models the proper form of an inductive argument: evidence from specific examples is accumulated and then a general or universal conclusion is reached. Here is another example of induction:

Alas that humanity is completely submerged in imitations and unrealities ... They follow superstitions inherited from their fathers and ancestors ... That which was meant to be conducive to life has become the cause of death; that which should have been an evidence of knowledge is now a proof of ignorance; that which was a factor in the sublimity of human nature has proved to be its degradation. [PUP 179, emphasis added]

In this passage we observe how 'Abdu'l-Bahá bases his conclusion – that we have turned the opportunities for new life into our degradation – on a wide variety of examples specifically named or alluded to. We should note that in this example, he is drawing a spiritual conclusion from these worldly examples.

Bahá'u'lláh also uses inductive arguments. He lists a series of historical examples in which people have yearned for the Manifestation and then, ironically, turned away from Him when He appeared. Indeed, Bahá'u'lláh goes into considerable detail in each case to give us evidence to support His argument. He then provides us His conclusion:

It behoveth us, therefore, to make the utmost endeavor, that, by God's invisible assistance, these dark veils, these clouds of Heaven-sent trials, may not hinder us from beholding the beauty of His shining Countenance, and that we may recognize Him only by His own Self. [GWB XIII 26]

From this litany of failures to recognize a new Manifestation, Bahá'u'lláh draws the practical conclusion that we must strive not to make the same error and that, with God's assistance, we learn to recognize the Manifestation for Himself.

7. Analogical Reasoning

The Bahá'í Writings make frequent use of analogical reasoning to explain and support the teachings. In analogies, we observe that two things are similar but not identical, and then reason or draw conclusions about one thing, i.e. the target, by comparisons with something else, i.e. the source.¹³ The more similarities between the source and the target, the stronger the conclusion will be. However, while analogical arguments provide good reasons to accept a conclusion, they do not provide logically necessary proof.

One of the most striking arguments by analogy in the Writings concerns the organic nature of human society. According to Bahá'u'lláh, we should

Regard the world as the human body which, though at its creation whole and perfect, hath been afflicted, through various causes, with grave disorders and maladies. [GWB CXX 254]

The underlying analogy is that initial appearances not withstanding, both the human body and the world/society are living organisms. Because they are the same kinds of things, we can transfer attributes from one to the other, i.e. from the source – the human body – to the target – the world/society. Thus, He says that the world/society, like the human body, can also suffer "disorders and maladies." For health, we need properly integrated parts functioning for the good of the whole.

Shoghi Effendi uses this organic concept of society to build his argument for dealing with Covenant breakers. He describes the Faith "as a living organism" [WOB 23], which, like an organism is able "to expand and adapt itself to the needs and requirements of an ever-changing society" [WOB 23]. He transfers the attributes of an organism, i.e. the source, to the target, i.e. the Bahá'í Faith. Consequently, Shoghi Effendi concludes that internal existential threats to the Faith must be excised from the Bahá'í community like "a cancer" [DG 16, emphasis added]. Tolerating internally rebellious and destructive elements within itself would expose the Faith to mortal danger. Another example of an argument from analogy is 'Abdu'l-Bahá's use of the sun and its planets to show why an intermediary between God and humankind is necessary. He informs us that "An intermediary is needed to bring two extremes into relation with each other" [PT 57]. This is the principle on which 'Abdu'l-Bahá constructs his analogy. It asserts that when two extremes are to be connected, a third connecting entity is necessary.

The Divine Reality may be likened to the sun and the Holy Spirit to the rays of the sun. As the rays of the sun bring the light and warmth of the sun to the earth, giving life to all created beings, so do the 'Manifestations' ... bring the power of the Holy Spirit from the Divine Sun of Reality to give light and life to the souls of men. [PT 57]

The rays are the necessary intermediaries between the sun and the earth because the sun itself cannot descend to earth just as God does not descend into materiality. Consequently, "there must be a Mediator between God and Man, and this is none other than the Holy Spirit, which brings the created earth into relation with the 'Unthinkable One', the Divine Reality" [PT 57].

8. Socratic Dialectical Reasoning

In his guidance to the conduct of consultation by a Spiritual Assembly, 'Abdu'l-Bahá says, "The shining spark of truth cometh forth *only* after the clash of differing opinions" [SWAB 87, emphasis added]. This statement encapsulates the essence of Socratic dialectic reasoning¹⁴ in which we seek the truth by carefully cross-examining all ideas, by trying them against contradictory or alternative suggestions and by analyzing them in light of divine revelation and for logical consistency. Naturally, we must take into account the spiritual context of this intellectual procedure for it is this spiritual context which forms the psycho-spiritual environment that helps us find the truth. This spiritual focus is essential because it discourages human idiosyncrasies, foibles and/or personal agendas from derailing the dialectical reasoning process.

Two words stand out in 'Abdu'l-Bahá's statement: "clash" and "only." The former strikes a somewhat 'Hegelian chord' in its allusion to a "clash" or collision to test viewpoint and its rivals. The word "only" seems to re-enforce this 'Hegelian chord' insofar as the "clash" of opinions (not individuals) is necessary for testing viewpoints. However, in contrast to the Hegelian dialectic, Socratic and Bahá'í dialectical reasoning does not necessarily end in a synthesis of views; truth may be with one point of view or another.

Although dialectical reasoning is necessary to Bahá'í consultation, it is not sufficient. Bahá'í consultation makes a key improvement in the process of dialectical reasoning by requiring participants to surrender personal ownership of ideas.

When an idea is put forth it becomes at once the property of the group. Although this notion sounds simple, it is perhaps the most profound principle of consultation ... When followed, this principle encourages those ideas that spring forth from a sincere desire to serve, as opposed to ideas that emanate from a desire for personal aggrandizement or constituency-building.¹⁵

Eliminating the concept of 'ownership' of ideas is essential to dialectical reasoning because the required objectivity is easily lost if the participants are side-tracked by personal 'politics.' As 'Abdu'l-Bahá says, "They must in every matter search out the truth and not insist upon their own opinion" [SWAB 87]. Truth is all that matters.

The role of dialectical reasoning is seen primarily in the requirements of consultation and less so in the Writings which have few clear-cut examples of dialectic reasoning. This is not unexpected since the Writings characteristically reason deductively from infallibly given universal premises and do not generally show the 'debating' process by which actual conclusions are reached. However, we do have an example of dialectical reasoning in its embryonic stage in 'Abdu'l-Bahá's discussion of pantheism in *Some Answered Questions*. Here we observe the pattern of exposition and refutation and/or improvement that characterizes dialectical reasoning. In the discussion of pantheism, 'Abdu'l-Bahá explains Sufi and Theosophist beliefs about God's relationship to the phenomenal world and then contrasts them with what the Prophets have taught. According to him, the Prophets teach that phenomenal reality emanates from God Who "remains and continues in the exaltation of Its [God's] sanctity" [SAQ 293]. Manifestation, however, means something appears in various forms. He demonstrates the weaknesses of the Sufi-Theosophical arguments for manifestation and why emanation is the correct alternative. A similar pattern of exposition and refutation is found in 'Abdu'l-Bahá's discussion about reincarnation [SAQ 282] and "The Birth of Christ" [SAQ 87].

It should be mentioned in passing, that dialectical reasoning requires adherence to the four laws of reasoning discussed in previous sections. A dialogue in which terms are not used consistently, in which the choice of truth or falsity is evaded, in which logical self-contradictions are rampant and in which reasons are not adequate to the subject matter quickly degenerates into nonsense that communicates nothing except confusion. No one will know what anyone else is talking about and that makes communication impossible. It destroys the very possibility and purpose of consultation.

9. A "Rational God"

Perhaps the most intriguing statement about rationality in the Bahá'í Writings is Shoghi Effendi's reference to

that invisible yet rational God Who, however much we extol the divinity of His Manifestations on earth, can in no wise incarnate His infinite, His unknowable, His incorruptible and all-embracing Reality in the concrete and limited frame of a mortal being. Indeed, the God Who could so incarnate His own reality would, in the light of the teachings of Bahá'u'lláh, cease immediately to be God. So *crude* and *fantastic* a theory of Divine incarnation is as removed from, and incompatible with, the essentials of Bahá'í belief ... [WOB 112, emphasis added] Shoghi Effendi's explanation tells us that an infinite and perfect God cannot incarnate Himself in finitude and imperfection without losing His identity as God. As Shoghi Effendi says, were God to do so, He would "cease immediately to be God." i.e. God must be infinite and perfect to be God. Therein we see consistency with the law of identity (LI). Shoghi Effendi's statement is also consistent with the law of non-contradiction (LNC) which tells us that God cannot be infinite and perfect as well as finite and imperfect at the same time in the same sense. Next, we observe the law of the excluded middle (LEM) insofar as one or the other of following statements must be true: 'God is infinite and perfect' or 'God is not infinite and perfect.' A third choice - which is precisely what the Christian understanding of the trinity asserts - is not logically possible. Shoghi Effendi describes this non-existent third choice as "crude and fantastic" which is a very strong rejection of a doctrine from another religion. Consistency with the three basic laws of standard logic is clearly one reason why Shoghi Effendi refers to a "rational God." We hasten to add that this does not compromise God's absolute freedom to act as He pleases. As creator of the laws of logic He is free to choose to act in agreement with them.

Further evidence of God's rationality is also seen in creation. As shown above, creation has a final cause, or purpose, a reason for being by which we can begin understanding it as an orderly composition and not "as a fortuitous composition and arrangement" [SAQ 181]. Order and purpose are essential attributes of rationality, and, in this case, signs of a "rational God" acting in the phenomenal world. Bahá'u'lláh says,

And when the sanctified souls rend asunder the veils of all earthly attachments ... then will *the purpose of creation*, which is the knowledge of Him Who is the Eternal Truth, become manifest. [KA 176]

Speaking of natural creation, 'Abdu'l-Bahá says, "the creation of God ... is not a fortuitous composition and arrangement [SAQ 181, emphasis added] and is "composed and combined with the greatest strength, conformable to wisdom and according to universal law" [SAQ 181]. Here, too, we observe that God reveals Himself as acting consistently with purpose and reason. This does not, of course, mean that we humans always understand this purpose or the reasons for creation, but it means we can rest assured that such reasons and such a purpose exist.

10. The Limits of Reason

There are, broadly speaking, three viewpoints about the powers of reason. Rationalism in its strongest form, often associated with empiricism and logical positivism, maintains that reason can tell us 'everything.' Whatever cannot be known by reason is not knowledge. Reason alone is both necessary and sufficient. At the other extreme is skepticism, in our time mainly in its as postmodern guise, which says reason can tell us nothing. There is no truth and we only have opinions or viewpoints, none less or more true than any other. Reason is neither necessary nor sufficient. Moderate rationalism lies between these two extremes. It holds that reason can tell us some things but not others; it has the ability to provide some knowledge but it also has limits. In short, reason is necessary but not sufficient.

In our view, the Bahá'í Writings espouse moderate rationalism, i.e. the view that reason is necessary but not sufficient. Having examined the necessity of reason in the Writings, let us turn our attention to its limitations. Doing so requires a brief excursion into ontology since Bahá'í epistemology has an ontological foundation. In a nutshell, the Writings teach that ontology determines epistemology, i.e. what can be known is determined by a thing's ontological status. Because "the degrees of existence are different and various, some beings are higher in the scale than others" [SAQ 130]. The result is that "everything which is lower is powerless to comprehend the reality of that which is higher" [SAQ 146, emphasis added] which brings us to the first limitation: human reason cannot comprehend God.

It is evident that the human understanding is a quality of the existence of man, and that man is a sign of God: how can the quality of the sign surround the creator of the sign? ... Therefore, *the Reality of the Divinity* is hidden from all comprehension, and concealed from the minds of all men. *It is absolutely impossible to ascend to that plane.* We see that everything which is lower is powerless to comprehend the reality of that which is higher. [SAQ 146, emphasis added]

The ontological difference between God and humankind is intrinsic and cannot be overcome. 'Abdu'l-Bahá states categorically that "it is *absolutely impossible* to ascend to that plane." This impossibility forbids all claims to know "the reality" or Essence of God and rejects all claims to having attained and experienced ontological unity with God, even if only in a subjective, emotional or 'mystic' state. This impossibility is "absolute" and, therefore, falsifies any claim to have attained such union from any perspective.¹⁶

However, our understanding of this ontological difference must be fine-tuned for, as 'Abdu'l-Bahá says, "The existence of the Divine Being hath been clearly established, on the basis of logical proofs, but the reality of the Godhead is beyond the grasp of the mind" [PUP 47, emphasis added]. In other words, we may know by logical proofs that God exists but not what God is, i.e. we may know about His existence which can be logically demonstrated, but we cannot know His Essence. In a similar vein Adib Taherzadeh writes,

It is essential to differentiate between the 'Essence of God' which Shoghi Effendi describes as the 'innermost Spirit of Spirits' or 'Eternal Essence of Essences', and 'God revealed' to humanity. The former is unknowable, while the latter is comprehensible to man.¹⁷

The "Essence of God" is unknowable but "God revealed' to humanity" i.e. God as revealed in phenomenal creation - can be known. He is known to us through the revelation of the Manifestations. What the Manifestation reflects is derived from and associated with God - that is precisely what makes him a Manifestation - and what He reveals to us about God, is knowledge about God appropriate to human understanding.

Another limitation of reason is identified when 'Abdu'l-Bahá affirms that by "intellectual development and power of reason,

man cannot attain to his fullest degree – cannot accomplish the progress effected by religion" [PUP 170]. Yet again, this time from a new perspective, the Writings support the central contention of moderate rationalism that reason while necessary is not sufficient for the full development of humankind. "No system of philosophy has ever been able to change the manners and customs of a people for the better" [PT 164] – a fact amply illustrated by the tragic history of various ideologies in the 20th Century. Genuine human development requires the power of the Holy Spirit:

The world of humanity must be confirmed by the breath of the Holy Spirit in order to receive universal education. [PUP 170]

Another limitation of reason is that it cannot learn about the essence of things directly. This brings us to one of the most philosophically important passages in the Writings.

Know that there are two kinds of knowledge: the knowledge of the essence of a thing and the knowledge of its qualities. The essence of a thing is known through its qualities; otherwise, it is unknown and hidden. [SAQ 220, emphasis added]

'Abdu'l-Bahá's wording in the second statement requires careful examination. It asserts that the "essence of a thing *is known through its qualities*; otherwise it is unknown and hidden." In other words, it is, in fact, possible to know *about* essences but only by means of their "qualities" or attributes. Knowledge of essences is indirect, mediated by "their qualities." There is no direct knowledge of the essence. Consequently, our reasoning is limited to these externalized, manifested qualities and actions of things. Abdu'l-Bahá adds,

the inner essence of anything is not comprehended, but only its qualities. For example, the inner essence of the sun is unknown, but is understood by its qualities, which are heat and light. The inner essence of man is unknown and not evident, but by its qualities it is characterized and known. Thus everything is known by its qualities and not by its essence. Although the mind encompasses all things, and the outward beings are comprehended by it, nevertheless these beings with regard to their essence are unknown; they are only known with regard to their qualities. [SAQ 220]

This passage reinforces the interpretation that the essence of things is not known in-itself but only externally by manifested qualities and their inter-action with the world. Only God has such knowledge of "inner essence[s]." Once again, we observe that this distinction puts restrictions on the powers of reason by forestalling all claims to immediate, 'inside' knowledge of essences. This prohibits any claims of ontological 'mystical union' with God since that would obviously provide such 'inside' knowledge of the divine.

We must also recognize that reason cannot comprehend the higher spiritual realms such as the Abhá Kingdom, i.e. "the worlds beyond this, and their condition" [ABL 66]. This is another important limitation of reason, one which has a direct effect on beliefs regarding the after-life and the existence of super-sensory realms of being. Of these worlds, we can only know what the Writings tell us.

Furthermore, reason by itself cannot complete its quest for knowledge, i.e. it lacks the power to attain the certainty with which the process of reasoning completes itself. (If it did not seek certainty what would be the point of the quest for knowledge?) Reason is necessary but is not sufficient to attain its natural goal of certainty. To attain certainty by itself, reason could only rely on still more reason, thus setting up an infinite regress which never achieves its goal. To achieve this certainty we must go beyond reason.

How shall we attain the *reality of knowledge*? By the breaths and promptings of the Holy Spirit, which is light and knowledge itself. *Through it the human mind is quickened and fortified into true conclusions and perfect knowledge*. [PUP 21, emphasis added]

In our view, the "reality of knowledge" includes the certainty that all knowledge seeks. This is only attained by the "promptings of the Holy Spirit" which enliven and strengthen the mind and "fortify[]" it into "true conclusions." In short, the reasoning capacities are strengthened so that our findings have truth and certainty, i.e. "perfect knowledge." Abdu'l-Bahá also says,

It is most certain that if human souls exercise their respective reason and intelligence upon the divine questions, the power of God will dispel every difficulty, and the eternal realities will appear as one light, one truth, one love, one God and a peace that is universal. [PUP 79]

What makes this statement especially interesting is that assistance from the "power of God," is conditional upon our "exercise" of "reason and intelligence." If we fail in this "exercise," divine help cannot or will not assist us, a situation similar to *The Arabic Hidden Words* which state, "If thou lovest Me not, My love can in no wise reach thee" [HW Ar. 5].

Equally noteworthy is the reference to using "reason and intelligence upon the *divine questions*," i.e. to using reason in regards to spiritual issues thereby emphasizing that reason is not only applicable to the phenomenal realm. This passage illustrates yet again that reason is necessary but not sufficient in the quest for knowledge. The same idea is expressed in the following passage:

He has bestowed upon him the power of *intellect* so that through the attribute of *reason, when fortified by the Holy Spirit*, he may penetrate and discover *ideal realities* and become informed of the mysteries of the world of significances. As this power to penetrate the ideal knowledges is superhuman, supernatural, man becomes the collective center of spiritual as well as material forces... [PUP 303, emphasis added]

Reason, when "fortified by the Holy Spirit," may acquire knowledge of "ideal" i.e. non-material realities and the supernatural realm because reason is "superhuman, supernatural." When properly assisted, reason is not confined to the phenomenal world. However, without help from the Holy Spirit, even our natural, scientific knowledge is not possible.

Without the Holy Spirit he [man] would have no *intellect*, he would be *unable to acquire his scientific knowledge*... *The illumination of the Holy Spirit* gives to man the power of thought, and enables him to make discoveries by which he bends the laws of nature to his will. [PT 58; cf. FWU 51]

Without the Holy Spirit, humans would have no "intellect" i.e. no mind and no reason by which to make scientific discoveries. Obviously, the "illumination" of the Holy Spirit is a pre-condition for the intellect or reasoning power in humankind; this divine illumination "gives to man the power of thought" and "enables him to make discoveries." This explains why the action of the Holy Spirit cannot be explained in strictly rational and empirical terms. Illumination from the Holy Spirit is a pre-condition for reason and is therefore, ontologically superior to it. As we recall, the ontologically lower cannot understand the higher. Thus, the conclusion that the Holy Spirit's actions are beyond reason is not merely a 'mystification' or evasion but rather a strict logical consequence of the relationship between the dependent things and that on which they depend.

Finally, 'Abdu'l-Bahá says that the

Holy Spirit gives the *true method of comprehension* which is *infallible* and *indubitable*. This is through the help of the Holy Spirit which comes to man, and this is the condition in which *certainty* can alone be attained. [SAQ 297, emphasis added]

Here, too, we find reference to the "true method of comprehension" which is available to the "quickened" mind as well as to the certainty or infallibility that "perfect knowledge" requires. Knowledge acquired with assistance of the Holy Spirit is described as "infallible and indubitable." Elsewhere, 'Abdu'l-Bahá also notes the possibility of certain knowledge: if we have proof that is acceptable to the senses, to reason, to "traditional authority" [PUP 254] and to the heart, we will have knowledge that can be "relied upon as perfectly correct" [PUP 254]. Later he adds that we can absolutely rely [on] and declare to be complete" [PUP 256, emphasis added] a proof that meets these four criteria. These statements suggest that *in principle* it is possible for humans to have certain knowledge – a topic we shall now examine more closely.

11. The Reliability of Reason

There is yet one more, extraordinarily important limitation of reason i.e. the unreliability of the reasoning process itself. 'Abdu'l-Bahá refers to this limitation in his discussions when he that philosophers cannot come to any final agreement on a wide variety of issues.

Therefore, it is evident that the method of reason is *not perfect*, for the differences of the ancient philosophers, the want of stability and the variations of their opinions, prove this. For if it were perfect, all ought to be united in their ideas and agreed in their opinions. [SAQ 296, emphasis added]

'Abdu'l-Bahá's conclusion is based on the premise that truth is one; consequently, if the reasoning process were fully reliable, this one truth would be evident to all. Elsewhere he adds that these differences among scientists and philosophers are "clear proof that human reason is not to be relied upon as an infallible criterion" [PUP 21].

We must carefully examine 'Abdu'l-Bahá's statements about the unreliability of reason because they can easily be misinterpreted to undermine virtually everything the Writings say about epistemology, i.e. about knowledge and reason. First, we must note what the passage does *not* say. Although it discusses the reasoning process, the construction of chains of inferences, the formation of "opinions," and debates among philosophers and scientists, it does *not* discuss what we may call the 'basic knowledge' we use to build rational inferences and arguments. In other words, this limitation of reason does not undermine or relativize statements such as fire is hotter than ice; a triangle has three sides; an elephant has more mass than an

ant; you either went to bed last night or did not; the sun seems to go around the earth. The Writings, of course, make constant use of such basic knowledge in developing arguments, explicating teachings and illustrating spiritual principles: spring is preceded by winter and followed by summer [SAQ 73]; a clear sky lets us see the sun [PT 62]: we can travel underwater in submarines [PT 41]. The significance of this observation is that it limits human fallibility to the process of reasoning and does not necessarily apply to all knowledge claims. We may acquire certain knowledge or facts and though they are very basic, they are absolutely necessary to the construction and explication of arguments whether our own or those in the Writings. In fact, the Writings depend on basic knowledge being certain and universal in order to reach a world-wide audience. The full significance of this will become apparent later. For now we shall only conclude that the Bahá'í Writings avoid skepticism about all knowledge by recognizing the validity of basic knowledge.

If misinterpreted, 'Abdu'l-Bahá's statements about the imperfection of the reasoning process can lead to claims of a serious self-contradiction in the Writings. On one hand, the Writings note the unreliability of reason while on the other, they put enormous emphasis on reason and rationality, even for religion and spiritual issues. As we have seen, 'Abdu'l-Bahá admonishes us to use reason as a test for distinguishing religion from ignorance and superstition. However, if reason is unreliable, how can we use it as instructed by 'Abdu'l-Bahá? How can it be useful in recognizing superstitions when reason itself is not reliable? On the surface at least, 'Abdu'l-Bahá's critique of reason seems to undermine and contradict the Writing's strong advocacy of reason. This confronts us with a stark question: Do the Writings contradict themselves?

Before demonstrating how Shoghi Effendi resolves this contradiction, it is important to recall that reasoning "fortified" [PUP 22] by the Holy Spirit can attain "certainty" [SAQ 299]. Therefore, 'Abdu'l-Bahá's declaration about the limits of reason do not apply in such cases. This means that infallibility is possible in principle – a fact of immense importance in regards to the Universal House of Justice which is the recipient of divine guidance.

One way of resolving this apparent contradiction between advocating and apparently undermining reason is to recall Shoghi Effendi's statement that the Bahá'í Faith is "scientific in its method."18 This has several applications. The first is that science recognizes that in principle reason is fallible and that all truth-claims are provisional, but at the same time, it recognizes that in practice truth-claims are accepted as true until there is empirical evidence and demonstrably better reasoning to prove otherwise. No mere imaginative speculation about possibilities suffice to dislodge a provisionally certain fact; better empirical evidence and better reasoning are required. Thus, while from the perspective of *principle*, there are no absolute certainties in science, from the perspective of *practice* there are *pragmatic* certainties we use until contrary concrete observational and rational evidence arises. All accepted scientific facts are in this position: fallible in principle but having pragmatic certainty. For example, in principle the heliocentric theory of the solar system is fallible, but in practice no one questions it given the absence of empirical evidence. The suggestion that it is simply an illusion from Descartes' clever demon - or the Matrix - is of no value to science. In this way, science strikes a balance between stability and change.

Applied to the Writings, this leads to the view that 'Abdu'l-Bahá's occasional statements about the fallibility of natural, unassisted reason concern *principle*, while his frequent statements extolling and recommending reason concern *practice*. This means there is no contradiction between principle and practice because they refer to different aspects of reasoning. Therefore, they do not really contradict or undermine each other.

We might also say that while the main emphasis is on the use of reason, passages on the limitations of reason are meant primarily as a heuristic admonition to forestall hubris about our reasoning processes and the resulting conflicts. This 'corrective view' is supported by the enormous disparity between the number of passages extolling and recommending reason and the very small number of passages about its limitations [SAQ 207; PUP 21 and 254]. Like any good teacher, 'Abdu'l-Bahá highlights the main lesson he wants to teach, in this case, the importance of using reason in the quest for both spiritual and worldly knowledge. However, he also provides a corrective if arguments get out of hand, and forestalls the hubris of extreme rationalism that might even claim to know God in His Essence.

The inherent fallibility of reason also raises the problem of circular reasoning. If reason is fallible, how can we use it to judge a work of reasoning with any confidence in the results? We are caught in a vicious circle. Is there a way of escape? In principle, for science there is no escape since there is nothing superior to reason by which to judge its results. One can only check and re-check one's data and conclusions in hopes of finding hidden errors — and await the results of other research. On the other hand, Bahá'í epistemology distinguishes between natural reason working alone and natural reason "fortified" [PUP 22] by the Holy Spirit and, therefore, has a superior platform by which to judge the results of reasoning. The problem for Bahá'ís is knowing which reasoning process has been "fortified" and which has not.

To help us judge the results of our reasoning, the Writings are "scientific in [their] method" in a second way. The sciences use a "negative gate-keeper" method of excluding inadequate viewpoints that cannot meet certain criteria — such as quantification, physicality, objectivity or falsifiability. Any hypothesis that meets the various criteria is acceptable until experimentation or the discovery of an internal reasoning error rule it out. For example, although in quantum physics the Copenhagen interpretation is most often cited, (a trend that is now changing) there are, in fact, several other scientifically valid interpretations of quantum data. They all make the same predictions and are, therefore, recognized as equally valid, e.g. interpretations by Everett, Gell-Mann and de Broglie-Bohm.¹⁹

The negative gate-keeper has two correlated functions. First, it tells us what criteria a hypothesis or viewpoint must have to be acceptable. In physics, quantification is one of them. Second, the negative gate-keeper tells us what to avoid. Physicists must avoid Aristotelian concepts of momentum and chemists must avoid the phlogiston theory of combustion. The negative gate-keeper does not dictate any specific interpretation or hypothesis but only criteria which our theories must satisfy. Within that framework, we may believe or hypothesize anything we believe is true. The net effect is that both unity of subject matter and diversity of exploration and hypothesizing are preserved.

A similar situation prevails in the Writings. They lay out certain criteria for our beliefs. For example, they must be based on the Writings and at least be conflict-free vis-à-vis guidance from the Universal House of Justice. Furthermore, Bahá'u'lláh and 'Abdu'l-Bahá also tell us particular beliefs to avoid. For example, the criteria that God does not manifest Himself in His creation, leads to the rejection of metaphysical pantheism [SAQ 289], and God's literal incarnation in Christ [SAQ 152]. On the basis of the criteria that "there are no repetitions in nature" [PUP 285] the concept of re-incarnation [PUP 167] is rejected. Ontological materialism [PUP 262], is denied because it asserts that spiritual and non-material aspects of existence are not real. 'Abdu'l-Bahá rejects the traditional Biblical interpretation of the Fall [SAQ 122] because it violates the criterion of logical reason: "the intelligence cannot accept it" [SAQ 122]. He rejects a host of traditional Biblical interpretations on this ground.²⁰ Among the other views rejected are the concepts of a real infinite regress [SAQ 148], atheism, the materiality of the soul and the mortality of the human soul. This list tells us what beliefs to avoid, and, thereby, helps us set aside viewpoints which imply or directly invoke rejected positions. However, as with science, the negative gate-keeper here does not dictate any specific understanding per se; it only gives us criteria for whatever understandings we may develop.

'Abdu'l-Bahá presents this idea in the image of the garden. Although he envisages a garden made up of many kinds of flowers, he also distinguishes between the plants in the garden and those outside in their "wild state" [SAQ 194]. The latter he associates with unfruitfulness. However, just as some plants or trees can be cultivated to become fruitful, some concepts can be revised to meet the criteria of the Writings [SAQ 7]. 'Abdu'l-Bahá's example gives a concrete illustration how negative gatekeeping preserves the unity, i.e. identity of the Bahá'í teachings and, at the same time allows the maximal diversity of ideas and understandings. The need for negative gate-keeping is clear. Without the ability to make critical judgments and to impose criteria of understanding, without some way of distinguishing truth from error, the independent investigation of truth would be a pointless exercise. Why bother seeking the truth if every proposition or viewpoint is true? Indeed, if every proposition or truth-claim is true, how can we even try to distinguish truth from error or identify "the people of error" [TDP 51; SAQ pp. 59, 75]. In such situations, no guidance – even divine guidance – is necessary: we can simply believe whatever suits us at the moment which is the very antithesis of the Manifestation's mission.

There are several advantages to the negative gate-keeper method used by the Writings. One is that it preserves the unique identity and nature of the Bahá'í Faith and its teachings while, at the same time, allowing the maximal variety of ideas and understandings. It balances unity-in-diversity with as much emphasis on the unity as on the diversity. Any ideas that do not run afoul of the criteria the Writings establish are acceptable, even though they may clash with each other.

The negative gate-keeper has one other advantage, namely, it provides what we have called 'practical certainty' in a foregoing section of this paper. While reason alone cannot give us absolute certainty, our understandings and practices can have 'practical certainty' as long as they meet the criteria of reason and the guidelines given by the Writings. This, too, strengthens diversity because it encourages different understandings and practices to flourish without threatening the unity of the teachings.

Inevitably, it will be asked 'How do we determine which interpretation is to be passed by the negative gate-keeper?' In our opinion, there is no hard-and-fast answer to this question. Instead, there are several means by which an idea may be tested. The Bahá'í Faith, of course, has no clergy or 'official philosopher' to ensure harmony with the Teachings because it guarantees that individuals have a duty and right to investigate and think for themselves. Thus, in our view, this determination is first made by those who suggest an idea; they have an obvious interest in seeing that their ideas harmonize with the Writings or at least are neutral. Second, whether or not an idea can pass the negative gate-keeper may emerge in discussion with others who might be able to show an explicit or implicit problem. Moreover, given the enormous emphasis on reason in the Writings, we might also say that the application of reason itself can help us make this determination. If an argument logically implies conclusions that violate certain Teachings, and/or are logically deficient, then obviously there is a problem to be rectified. Finally, in the case of papers intended for publication, the review process may also play a role under some circumstances.

12. Non-Discursive Knowing and Thinking

So far we have examined what is called 'discursive reason,' i.e. reaching conclusions on the basis of chains of inference based on universal premises, empirical evidence or analogies. Discursive reasoning requires clearly articulated steps according to the laws of logic. In our view, this kind of reasoning is pervasive throughout the Writings – but does not cover all ways of acquiring knowledge and reaching conclusions. The Writings, as noted before, espouse a moderate rationalism which recognizes the validity of non-discursive methods of knowing and finding truth. Some authors such as Ken Wilber²¹ refer to these methods as 'transrational,' i.e. psycho-spiritual processes that include but transcend reason. They do not violate rationality but go beyond it.

Before proceeding, it is important to highlight that nondiscursive reasoning is not to be confused with irrationality. The irrational and the non-discursive differ insofar as irrationality involves a cognitive deficiency or confusion in the reasoning process. It may involve setting aside reason in favor of something else, e.g. a personal preference or desire, a political agenda, an advantage to be gained or a sheer assertion of will power for its own sake. On the other hand, nondiscursive reasoning is a way of acquiring knowledge or reaching conclusions about reality that does not involve the chains of inference we have previously examined.

When speaking of non-discursive reasoning, we must distinguish between the process and the result. By definition, the process itself is non-discursive i.e. it cannot be communicated by laying out a chain of logical inferences. About the process we must remain silent, or communicate by metaphors, analogies or by various forms of artistic expression. However, the result, i.e. the conclusions we reach or the actions we take on the basis of the non-discursive process must, at the very least, not contradict the Writing's emphasis on rationality. The Writings would be weakened by another serious selfcontradiction in their epistemology if intrinsic rationality of the soul and 'other ways of knowing' conflicted with reason instead of complementing it. Even if the process of attaining knowledge is non-discursive, the results must still make sense in and be applicable to this world. If they do not, they will simply be irrational - which means they would not pass the test of rationality which the Writings recommend. Indeed, if such 'other ways of knowing' were irrational, they would also be violating the very essence of man, i.e. the "rational soul."

It is noteworthy that irrationality has only negative connotations in the Writings. 'Abdu'l-Bahá associates the irrational with the "foolish" [SWAB 185], and with the "irrational drinker" [TAB3 492]. Shoghi Effendi associates it with the "illogical,"²² with "irrational instincts of youth, its follies, its prodigality, its pride, its self-assurance, its rebelliousness, and contempt of discipline" [PDC 117] and "superstition" [WOB 137]. Irrationality has no place in the Bahá'í quest for knowledge and truth.

13. Non-Discursive Thinking: The Heart

Although the heart is the most important 'organ' or capacity for non-discursive reasoning, it is not in inherent conflict with reason. 'Abdu'l-Bahá tells us, "The world of minds corresponds with the world of hearts [PUP 270, emphasis added]. In other words, the heart and mind or reason²³ are distinct but they are not opposed, i.e. do not necessarily contradict one another although they 'deliberate' in different ways. The Writings show this in several ways. 'Abdu'l-Bahá says, "And among the teachings of Bahá'u'lláh is, that religion must be in conformity with science and reason, so that it may influence the hearts of men."²⁴ It is noteworthy that reason is able to "influence the heart." This idea is emphasized in the following:

If religious belief and doctrine is at variance with reason, it proceeds from the limited mind of man and not from God; therefore, it is unworthy of belief and not deserving of attention; the heart finds no rest in it, and real faith is impossible. How can man believe that which he knows to be opposed to reason? Is this possible? Can the heart accept that which reason denies? Reason is the first faculty of man and the religion of God is in harmony with it. [PUP 231]

There are several issues here. First is the suggestion that what is rational comes from God, and what is irrational comes from the human mind. Here, too, God is associated with rationality – as in Shoghi Effendi's reference to the "rational God" – though this trait does not, of course, exhaust His nature. Second, the heart cannot find rest in beliefs and doctrines that are "at variance with reason." In other words, the heart cannot find rest in the irrational and even more – "real faith" in the irrational is "impossible." The heart cannot accept ideas that violate reason which means that in some sense the heart is rational too or at least sufficiently sensitive to rationality to make it a requirement.

Throughout the Writings we are instructed to "ponder in [our] hearts" [SWAB 241] a variety of subjects such as Bahá'u'lláh's prophesies [SWAB 17], "the mysteries of Divine Revelation" [KI 47], and the social principles of the Faith. The heart is described as "the seat of the revelation of the inner mysteries of God" [GWB CXXV 264]. It is clear that the heart, like reason, is able to cogitate, assess, reflect, analyze, understand and conclude, albeit it ways that we cannot explain discursively. For example, Bahá'u'lláh says, "Ponder this in thine heart, that thou mayest comprehend its meaning" [GWB XVII 46], and "Ponder this in thine heart, that the truth may be revealed unto thee" [GWB XXXII 76] thereby showing that the heart can examine, reflect on, understand and comprehend the truth. The heart has an epistemological function as indicated by the phrase "understanding heart" [GDM 51]. The heart's function in acquiring truth is noted elsewhere as well: "May your hearts become clear and pure like unto polished mirrors in which may be reflected the full glory of the Sun of Truth" [PT 95] and "men of *enlightened heart* worship truth on whatever horizon it appears" [PT 128, emphasis added]. It also has a cognitive function as indicated by the phrase, "sight of thy heart" [SWAB 37] which is to say that in its own way, the heart can perceive things, in this case, "intellectual realities" among which 'Abdu'l-Bahá lists "all the qualities and admirable perfections of man" [SAQ 263] and "love" [SAQ 83]. The heart is also described as a "spiritual faculty" [TAB1 208] gifted in "spiritual susceptibilities" [PUP 7; cf. TAB2 286] which is to say, it is open to spiritual influences: "reflections of the spirit and impressions of the Divine are now mirrored clear and sharp in the deep heart's core" [SWAB 19].

However, what can it mean to 'ponder in our hearts'? How can we 'ponder' or reach understandings or conclusions without abstract concepts or discursive logical operations or, possibly, even without words? To what extent can we be conscious of these deliberations? On the basis of our studies, we conclude that the Writings do not provide us with precise information about this because one cannot give exact discursive descriptions of non-discursive processes. We can only experience them and feel their influences on our thinking as we "ponder in [our] hearts" [SWAB 241].

Given the consistent association of the heart with various kinds of love in the Writings, it seems plausible that the deliberations of the heart are intimately connected with the feelings of love for God and His creation, i.e. the 'agapeic'²⁵ aspects of humankind. These include sympathy, empathy, personal and existential concern, compassion, and devotion. But even this love is rational in the sense of being appropriate to the soul that God has created in each person. Thus, when we "ponder in [our] hearts," it seems likely that we deliberate under the guidance of, or in the light of, love as the fundamental force in the cosmos: "Love is the fundamental principle of God's purpose for man, and He has commanded us to love each other even as He loves us" [PT 121]. When pondering in our hearts, we observe and reflect about people, things and issues from the

perspective of God's universal love as reflected in us and, in doing so, reach our conclusions. How exactly this happens, cannot, as said before, be discursively explained. It is a process that must be personally experienced directly to be understood. In that way, it resembles what 'Abdu'l-Bahá says about our understanding of immortality:

But if the human spirit will rejoice and be attracted to the Kingdom of God, *if the inner sight becomes opened*, and *the spiritual hearing strengthened*, and the *spiritual feelings predominant*, he will see the immortality of the spirit *as clearly as he sees the sun*. [SAQ 225]

This heart-knowledge is immediate, like the knowledge of our own physical sensations and even spiritual insights. According to the Writings, the mind and spirit are directly aware of our own bodily states as well as our own feelings and "spiritual conditions" [SAQ 157].

Such knowledge is not based on a clear-cut subject/object division as are all other kinds of knowledge and thought. When we perceive a tree or think about an idea, there is a difference between the object of thought and the person thinking, i.e. between subject and object, the knower and what is known. Consequently, we must consciously exert "effort and study" to know and think about them because they are external to us. However, with our bodily, emotional and spiritual states, we are both subject and object, knower and known. It is a direct, immediate, intimate "knowledge of being" not a mediated, objective knowledge about being. Moreover, this knowledge is not limited to ourselves alone. Because humans are a "microcosm" [PUP 69] the laws, principles or 'mysteries' of entire universe is "expressed or revealed" [PUP 69] within us. This suggests that in our heart-ponderings, we may, if we go deep enough, also gain knowledge about creation in this way.

14. Intuition

Intuitions are another non-discursive way of knowing according to the Writings. Speaking about the divine origin of the universe, 'Abdu'l-Bahá says,

These obvious arguments are adduced for weak souls; but if the *inner perception* be open, a hundred thousand clear proofs become visible. Thus, when man *feels the indwelling spirit*, he is in no need of arguments for its existence. [SAQ 6]

If we have direct sight or experiential knowledge we have no need of discursive, step-by-step inferential reasoning. Opening our eyes – not devising arguments – will prove the existence of the sun. The direct experience is identified with feelings in this passage, once again suggesting that feelings are the medium of this kind of direct, non-discursive knowledge. After discussing the immortality of the soul, 'Abdu'l-Bahá declares,

if the inner sight becomes opened, and the spiritual hearing strengthened, and the spiritual feelings predominant, he will see the immortality of the spirit as clearly as he sees the sun. [SAQ 225, emphasis added]

Here, too, we observe that direct insight – "inner sight" – and "spiritual feelings" give us non-discursive knowledge about spiritual topics like immortality. However, we must bear in mind that direct "inner sight," though not subject to inferential reasoning, is not inherently irrational, and thereby, opposed to the "rational soul."

'Abdu'l-Bahá shows the necessity of intuition for ontological reasons. There are "invisible realms which the human intellect can never hope to fathom nor the mind conceive" [SWAB 185]. These cannot be known by discursive reasoning no matter how astute; rather we must cleanse the channel of our "spiritual sense" [SWAB 185] which leads us to "the sweet scents of holiness" [SWAB 185] or intuitions from the "invisible realms." Again, we should note that nothing here suggests that these intuitions are not in harmony with reason even though the process of receiving them cannot be described discursively. Like intuitions, 'transcendent experiences' also seem to take us out of the world of ordinary time and space. Such experiences can only be discussed – if at all – only by means of poetic metaphors. We find one such described in *The Seven Valleys*. Having explained His statements about firstness and lastness, Bahá'u'lláh informs us that these statements apply to the "sphere of that which is relative," i.e. the ordinary world, "of variation and oneness, of limitation and detachment" [KI 160].

These statements are made in the sphere of that which is relative, because of the limitations of men. Otherwise, those personages who in a single step have passed over the world of the relative and the limited, and dwelt on the fair plane of the Absolute, and pitched their tent in the worlds of authority and command — have burned away these relativities with a single spark, and blotted out these words with a drop of dew. And they swim in the sea of the spirit, and soar in the holy air of light. Then what life have words, on such a plane, that "first" and "last" or other than these be seen or mentioned! In this realm, the first is the last itself, and the last is but the first. [SV 26]

A few "personages" have transcended this ordinary plane of existence. In some indescribable way, they have attained a realm beyond explanation by discursive reasoning, though what transpires in that realm is not be incompatible with reason. God, after all, is a "rational God" and we would not expect His creation to violate His own nature. What we encounter in this realm is beyond discursive explanation, a knowledge that must be experienced, not discursively described. The acceptance of such experiential knowledge emphasizes the moderate rationalism in the Writings.

One of the conclusions we may draw from our discussion of the heart, intuition and transcendent experience is that rationality and discursivity are not synonymous in the Writings. Viewing a work of art may give us experiential knowledge but such knowledge is not necessarily non-rational because it is nondiscursive, i.e. cannot be satisfactorily be explained in inferential steps. Indeed, given our essential nature as "rational souls" and the existence of a "rational God" it is hard to see how any true knowledge or understanding of any sort could be non-rational even though it is non-discursive.

15. The Uses of Reason in the Writings

Perhaps the most important use of reason in the Writings is to test the validity of religion and religious beliefs.

Consider what it is that singles man out from among created beings, and makes of him a creature apart. Is it not his reasoning power, his intelligence? Shall he not make use of these in his study of religion? I say unto you: weigh carefully in the balance of reason and science everything that is presented to you as religion. If it passes this test, then accept it, for it is truth! If, however, it does not so conform, then reject it, for it is ignorance! [PT 144]

'Abdu'l-Bahá notes that reasoning is humanity's distinguishing feature and, in the form of a rhetorical question, tells us to use our "reasoning power" in our "study of religion." There is no suggestion here that reason cannot deal with spiritual issues. He then commands us to "test" religion by reason. Elsewhere he tells us that "Religion must stand the *analysis of reason*" [PUP 175]. If religion must pass the test of rationality, then obviously reason is sufficiently reliable to make such analysis feasible and worthwhile. If it were not, there would be no point to 'Abdu'l-Bahá's command to use it. This demonstrates yet again that while we must be aware of reason's limitations, we should not let them deter us from using and relying on reason. He says,

In *divine questions* we *must not* depend entirely upon the heritage of tradition and former human experience; nay, rather, we *must exercise reason*, *analyze* and *logically examine* the facts presented so that confidence will be inspired and faith attained. [PUP 327, emphasis added] It is important to note the imperative – "we *must* exercise reason" which implies not only that reason is sufficiently reliable for the task but also that we are remiss if we do not use it. Noteworthy as well is the command that we must "*logically* examine" religious teachings. Moreover, 'Abdu'l-Bahá also declares that "If religion were contrary to *logical reason* then it would *cease to be a religion* and be merely a tradition" [PT 142, emphasis added]. Here, too, we observe the association of reason and logic.

Further evidence of reason's ability to deal with and test spiritual subjects is 'Abdu'l-Bahá's declaration that

The *intellectual proofs* of Divinity are based upon *observation* and *evidence* which constitute *decisive argument*, *logically proving* the reality of Divinity, the effulgence of mercy, the certainty of inspiration and immortality of the spirit. This is, in reality, the science of Divinity [PUP 326].

Even the existence of God - Who is absolutely non-material can be "decisive[ly]" proven by reason and logic, a view reaffirmed elsewhere when he says, the "existence of the Divine Being hath been clearly established, on the basis of logical proofs."²⁶ It is significant that he accepts the validity of logical proofs of God's existence as being "decisive" and "clearly established" without the slightest suggestion that we should doubt these results. Once again we observe that reason and logic are not only applicable to metaphysical and theological subjects but are also deemed sufficiently reliable to be used in this way. Other spiritual topics which reason can demonstrate are "the effulgence of mercy," "the certainty of inspiration" and the "immortality of the spirit" all of which transcend the empirical-physical aspects of reality. In a similar vein, he affirms "The Unity of God is logical, and this idea is not antagonistic to the conclusions arrived at by scientific study" [PT 141]. He also asserts that "If a question be found contrary to reason, faith and belief in it are impossible, and there is no outcome but wavering and vacillation" [PUP 181]. Reason is necessary to attaining genuine faith that can withstand the tests of this world; without such support from reason, faith will

vacillate or waver. This suggests that reason is also necessary to faith and that faith without reason is deficient.

'Abdu'l-Bahá sums up his teachings about reason and religion with the assertion that "The foundations of religion are reasonable" [PUP 128]. In other words, reason is at the very base of religion and is, fundamentally, a rational enterprise though we cannot grasp all aspects of this rationality in logical discursive reason. This reasonable foundation is, of course, why religion and science can be in harmony: they share the same foundation and, therefore, are unified in their beginnings.

16. The Search for Truth

The Writings are clear that reason enables us to discover truth; after all, if reason could not discover truth, there is no point in requiring us to use it. 'Abdu'l-Bahá says, "God has created man in order that he may perceive the verity of existence and endowed him with mind or reason to discover truth" [PUP 287, 303, emphasis added].²⁷ Similarly, he says, "He [God] has endowed him [man] with mind, or the faculty of reasoning, by the exercise of which he is to investigate and discover the truth" [PUP 291, emphasis added]. He declares that "God has created man and endowed him with the power of reason whereby he may arrive at valid conclusions" [PUP 312, emphasis added]. Indeed, the Bahá'í Writings constantly emphasize that truth exists and that reason can discover it. As 'Abdu'l-Bahá says,

[t]he power of the rational soul can discover the realities of things, comprehend the peculiarities of beings, and penetrate the mysteries of existence. All sciences, knowledge, arts, wonders, institutions, discoveries and enterprises come from the exercised intelligence of the rational soul. [SAQ 217, emphasis added]

The last sentence is especially important, telling us that "all sciences, knowledge ... come from the exercised intelligence of the rational soul." If all knowledge comes from the rational soul, this includes non-discursive knowledge which is still rational though not open to discursive explanation. As noted before, discursivity and rationality are not synonymous in the Writings. There are levels of truth which, though rational, cannot be set down in step-by-step inferences of discursive reasoning. To emphasize reason's ability to discover truth, 'Abdu'l-Bahá says,

God has created man in order that he may perceive the verity of existence and endowed him with mind or reason to discover truth. Therefore, scientific knowledge and religious belief must be conformable to the analysis of this divine faculty in man. [PUP 287; cf. PUP 291]

It is noteworthy that he says that "religious *belief*" must be "conformable" to reason, implying, thereby, that irrational religious beliefs are unacceptable and that such beliefs are unworthy of the "rational soul." This statement also implies that there are real differences between truth and nonsense.

Part II: Questions Concerning Reason

In the first part of this study, we have examined the role of reason in the Writings. We shall now turn our attention to some the issues that may arise in regards to this topic.

17. The Issue of Diversity

Because of the strong and pervasive emphasis on reason throughout the Bahá'í Writings, the issue of diversity arises. It may be argued that the prominence of reason and especially standard or Aristotelian reason throughout the Writings undermines the teachings on diversity, notably cultural diversity. Standard reasoning is, after all, the associated with a particular, i.e. Western culture and is not necessarily relevant to all cultures. Some might even argue that the emphasis on such reason is little more than a "post-colonialist" attempt to impose Western thought forms on the non-Western world. In general terms, we may ask, 'Why is there such a pervasive presence of Aristotelian or standard logic when such logic seems to undermine diversity and privilege works that harmonize with reason or at least do not contradict it?'

Before continuing, we must emphasize the unchallengeable *right* of individuals to hold any view/interpretation of the Writings they like, rationally tenable or not. That right is never in question and must be vigorously upheld: "at the very root of the Cause lies the principle of the undoubted right of the individual to self-expression, his freedom to declare his conscience and set forth his views" [PBA 43]. Nonetheless, saying that nothing can diminish our right to hold even rationally untenable views is not the same as saying that all views are equally rational and/or tenable. The first is a judicial issue while the second is epistemological.

However, the Writings instruct us to use the "divine faculty" [PUP 287] of reason as a tool to distinguish tenable from untenable views. 'Abdu'l-Bahá directs us to

weigh carefully in the balance of *reason* and science everything that is presented to you as religion. If it passes this test, then accept it, for it is truth! If, however, it does not so conform, then *reject it*, for it is *ignorance*! [SAQ 144]

Elsewhere he tells us that "both [religion and science] are founded upon the premises and conclusions of reason, and both must bear its test" [PUP 107]. This makes it clear that reason is inherently a selective mechanism which involves rejecting some views or, at least, setting them aside until they have been made rationally tenable. Such a selective mechanism is necessary because the whole point of investigating the truth is lost without it. Why seek the truth if there is no way of distinguishing it from error, or if we have no standard by which to differentiate the more plausible from the less plausible? Without the standard of reason "anything goes"28 and consequently, one of the foundational teachings - seeking the truth - of the Bahá'í Faith is lost. Indeed, the concept of consultation is also lost without the goal of distinguishing the tenable from the untenable. Making such distinctions is precisely the point of 'Abdu'l-Bahá's declaration that "The shining spark of truth cometh forth only after the clash of differing opinions" [SWAB 87]. Finally, the doctrine of the harmony of science and religion is undermined if we refuse to recognize that reason is necessary to help us distinguish tenable from untenable views, e.g. oxidation versus the phlogiston theory of combustion.

If all viewpoints were equally rational or tenable or all harmonized with the Writings to an equal degree it is difficult, if not impossible, to explain why Bahá'u'lláh and 'Abdu'l-Bahá reject some ideas as false. Metaphysical pantheism [SAQ 289], ontological materialism [PUP 262], and re-incarnation [PUP 167] are explicitly disallowed. Furthermore, Bahá'u'lláh and 'Abdu'l-Bahá refer to some ideas as "absurd" [SAQ 291], "childish" [PUP 219], "erroneous" [SAQ 278; TB 124], "mistaken" [PUP 87], and "wrong" [SAQ 6] thereby, obviously rejecting them, and, by implication, guiding us to reject them too. In other words, acceptance and encouragement of diversity does not necessarily mean that "anything goes" and that there are no standards by which to distinguish the tenable from the untenable. The Writings make reason, and specifically standard reason, one of those standards.

It might be argued that making such judgments on the basis of the pervasive presence of standard or Aristotelian reasoning in the Writings is a manifestation of a 'post-colonialist' sense of superiority. However, there are several problems with the 'post-colonial' critique. Most obviously, the objection is, in the last analysis, beside the point. Whether it is 'post-colonial' thinking or not, the Bahá'í Writings see rationality as the essential attribute of the human soul and pervasively and consistently model rationality in the form associated with Aristotelian or standard reasoning. In other words, this form of reasoning is unavoidable in any encounter with the Writings. Regardless of what culture people come from and what level of education they have, they will have to enrich themselves with this aspect of the Writings if they wish to understand the arguments used by Bahá'u'lláh and 'Abdu'l-Bahá. Since "in this age the peoples of the world need the arguments of reason" [SAQ 7, emphasis added] it would especially difficult to overlook the ubiquity of Aristotelian reasoning in the Writings simply

because a number of current academic theories find this model of rationality problematic.

The main problem with the 'post-colonialist' critique is that it commits the genetic fallacy, i.e. a fallacy of irrelevance which makes a pejorative judgment about something on the basis of its supposed origins or past use instead of by its inherent content and application. The fact that standard logic originated in the West and spread globally by means of Western imperialism does not necessarily make it inapplicable on a global basis to other cultures and in our time. Indeed, since the Bahá'í Writings make such extensive use of standard logic decisively, it seems obvious that neither its content nor its application is necessarily and inherently harmful to anyone or any culture. Without a doubt, the Writings use and recommend such reasoning and provide such models precisely because they are deemed helpful and conducive to human development during the remainder of this dispensation. Would we expect the Bahá'í Writings to model or recommend anything that does not have positive potential for human development? Surely, given the pervasiveness of standard logic in the Writings, it is more likely that such reasoning is essential or necessary to positive human development.

A second major problem with the 'post-colonial' critique is that it overlooks the universality of the Law of Noncontradiction (LNC), which encapsulates the essence of standard or Aristotelian reasoning. No matter what individuals or cultures claim to believe about logical contradictions, no matter what models of logic they have, in the practice of daily life they behave according to the LNC. People in all ages and in all places know that we cannot have eaten lunch and not eaten lunch at the same time, in the same sense and from the same perspective. Recognizing this is a survival skill. Hunters and gatherers know that they have either bagged a kill or collected berries - or they have not. No tribe's winter storage both contains and does not contain meat. Nor do humans act as if a truck - or a lion or a mastodon - is both coming and not coming at them at the same time and the same sense. A failure to recognize the LNC and act on it is potentially injurious or even fatal. The LNC does not even need to be known discursively or consciously. A newborn 'knows' that it cannot be fed and not fed at the same time in the same sense – and will let us clearly know which is the case! In other words, regardless of what theoretical superstructures or models of reason/logic are constructed by various cultures, they do not negate the practical, daily application of the LNC.

In our view, the Writings make use of this daily, practical logic which humans apply precisely because it is universally accessible to people everywhere and at all times. In that sense, it is not culture-bound: no matter what culture we are in or at what time we live, my child cannot be fed and not fed at the same time and in the same sense. What parent – even one who explicitly 'disbelieved' in the LNC – would confuse one with the other? This universality makes standard, i.e. Aristotelian reasoning ideal for meeting the world's need for a unified, global method of reasoning without which human cross-cultural communication will be severely hindered and, thereby, impede the quest for world unity and peace.

In reflecting about reason in the Bahá'í Writings, the question arises whether or not 'other kinds' i.e. non-standard logic may be found in the Writings. More specifically, we must consider if the Writings rule out the use of logical systems that deny the law of non-contradiction (LNC). In our view, the answer is negative: there is no mandate to limit such matters a priori although it is difficult to see how two such contradictory systems can be reconciled. The most we can say is that this study has found no evidence of non-standard logic whereas we have found plentiful evidence of the implicit and explicit use of standard, Aristotelian reasoning. Nowhere, for example, do we find we find many-valued logics such as Nagarjuna's catuskoti. We can, of course, debate why anyone would follow adopt such logic in light of the persistent and pervasive use of standard or Aristotelian reasoning throughout the Writings. Furthermore, we may discuss if such a strategy actually succeeds in regards to a particular Text.

More specifically, we have found no intentionally paradoxical, i.e. self-contradictory passages that cannot be resolved by the resources of standard logic as given in the Writings. Two examples follow.

Our first passage concerns the "mystic knower" [SVFV 51] and the "grammarian" [SVFV 51] in Bahá'u'lláh's parable in The Four Valleys. When the two travelers arrived at "Sea of Grandeur" [SVFV 51], the mystic "flung himself onto the waves but the grammarian stood "lost in his reasonings" [SVFV 51]. First appearances to the contrary, this story is not a critique of reason per se but a critique of the misuse of reason. The moral is clear: there is a time for discursive reason and there is a time to act. The grammarian's fault is not in reasoning - after all, his reasoning has brought him to the Sea of Grandeur - but in failing to distinguish between situations that require reasoning and those that require action. He fails to act appropriately i.e. reasonably, and he lacks the courage to act on the basis of his reasoning. He misuses reason, not having understood that reason cannot tell us everything as moderate rationalism asserts. Some things can only be learned by doing and experience. That is why "the death of self is needed" [SVFV 51], i.e. complete, unreserved existential commitment, not further rationalization.

Another apparent conflict with reason is found in the Báb's statement that "reason, even in its utmost level of abstraction, is confined to the understanding of limited phenomena."29 Reading this, we must be careful not to assume that "limited phenomena" are material/physical phenomena, and, therefore reason is limited to these. Reason, as we have seen, can also deal with "intellectual realities which are not sensible, and which have no outward existence" [SAQ 186] as well as with spiritual issues. It is true that reason cannot understand unlimited phenomena because reason requires concepts which are inherently limited but that is exactly why the Writings espouse a moderate rationalism - to allow other avenues of knowing. However, as we have shown in regards to other ways of knowing, i.e. non-discursive knowledge and reasoning, nondiscursive is not synonymous with non-rational.

These examples remind us that the Writings espouse a "moderate rationalism" according to which reason cannot tell us everything. Other ways of knowing are also available, such as 'action' in the example of the mystic knower and the grammarian. There is also the knowledge of the heart as noted in previous discussions. The ubiquity of Aristotelian logic in the

Writings does not necessarily negate the validity of these other ways of knowing, so there is no necessary conflict between them. Indeed, we would not expect such conflicts because truth is one, i.e. it cannot be divided by contradictions. As 'Abdu'l-Bahá affirms, "No one truth can contradict another truth" [PT 136].

18. Standard Logic and Modern Science

One critique of standard or 'classical' reasoning is that it is limited to the ordinary macroscopic world in which we live, and is, therefore, out of step with developments in quantum physics which operates at the microscopic level. Our reasoning should be in harmony with the microscopic level which is the basis for macroscopic reality. It is argued that the Writings would not model and recommend standard logic since it is not in harmony with quantum logic.

The most obvious answer to this critique is that notwithstanding developments in quantum physics, the Writings clearly show a persistent and pervasive use of standard or Aristotelian reason. The evidence we have presented – as well as the greater volume of evidence excluded – cannot be avoided. Moreover, in our view, it is doubtful that Bahá'u'lláh and 'Abdu'l-Bahá would make such widespread use of this type of reasoning if we were not meant to understand it and use it as a model. Nor is it likely that the Writings would present believers with insurmountable obstacles vis-à-vis quantum theory and logic.

Furthermore, in daily practice it is difficult to see how we would we apply quantum logic – especially in the Copenhagen interpretation of quantum phenomena – to life at the macroscopic level. What application can there be in the macroscopic world of the Copenhagen principle that objects or persons do not exist until they are observed and only as long as they are observed? How can we use quantum logic derived from this fact vis-à-vis trains or mastodons? Is there anything we can practically do in our lives with the Heisenberg Uncertainty Principle which dictates that we cannot simultaneously ascertain the position and velocity of a particle? While this may be true at the microscopic level, at the macroscopic level traffic police seem to have no trouble doing both. The application of quantum logic in the macroscopic world seems like a recipe for incredible confusion. We must also bear in mind that while the Copenhagen interpretation is the best known version of quantum theory, it is not the only one. Indeed, there are at least six other viable interpretations at least one of which, David Bohm's, is consistent with standard logic. In other words, all quantum interpretations do not necessarily lead to the strange effects associated with the Copenhagen model.³⁰

Indeed, the claim that standard logic is out of step with the quantum logic used to study events at the micro-level is questionable and open to debate. Mathematical physicist Roland Omnes, who has done pioneering work in reconciling classical (standard) logic and quantum logic, sees no reason to abandon standard logic because

it can be shown that common sense logic is actually a logic of consistent quantum histories and that common sense arguments are ultimately verbalizations of implications that can be demonstrated in quantum logic ... the probability for common sense to be wrong is practically always negligible as long as it deals with macroscopic objects.³¹

He adds,

common sense conforms to the quantum nature of laws governing the material world, at least in normal conditions, and for objects on our human scale (and often, even well below it).³²

In other words, there is no irreducible and necessary conflict between standard logic and quantum logic. This is exactly what we would expect from a Bahá'í perspective because reality is one: "As reality is one and cannot admit of multiplicity, therefore different opinions must ultimately become fused into one" [SWAB 298]. If reality is truly one, it seems unlikely that it is bifurcated into two, mutually contradictory, i.e. absolutely incompatible parts or levels. Reality would be fragmented and multiple. At the very least we would expect that the two types of reasoning are complementary and not contradictory.

A different critique of the standard logic used in the Writings is that standard logic does not work in the astronomical sciences because of relativity. This argument appears to confuse relativity theory in astronomy and relativism in philosophy. Unlike philosophic relativism which has no absolutes by which to make judgments about various truthclaims, scientific relativity theory has an absolute - the speed of light - which is the same in all frames of reference i.e. the same for all observers regardless of their motion. It is a universal constant, a universal speed limit. From this it is readily apparent that a particle either has or has not attained light speed or some fraction of it. Such measurements - subject to the LNC - fall well within the purview of standard logic. In addition, even though the same event can appear contradictory in different frames of reference, i.e. in different perspectives, the same event cannot have all contradictory appearances in the same frame of reference or perspective. In other words, the LNC still applies.

Let us examine one more case. Heisenberg accepts that standard and quantum logic are related (one is an extension – not negation – of the other).³³ However, Heisenberg also endorses the Aristotelian concepts of act and potency in his understanding of the quantum world.³⁴ For him, the superposition of a particle refers to its potentials for actualization; for potentials – even opposite potentials – to exist simultaneously does not violate standard logic.³⁵ Heisenberg's view that quantum logic is an "extension" of classical logic means that like Newtonian physics, standard logic is valid within its own sphere, i.e. the macro-world, which means that there is no inherent conflict with quantum physics. Standard logic is the appropriate logic for the macro-world which is why Bahá'u'lláh and 'Abdu'l-Bahá make use of it.

19. Conclusions

On the basis of this study of reason in the Bahá'í Writings, we may reach seven major conclusions.

- 1. The Bahá'í Writings assert that "The foundations of religion are reasonable" [PUP 128] and consistently advocate and even require the use of reason in regards to phenomenal and spiritual/religious matters and as a test for truth and falsity.
- 2. The Bahá'í Writings pervasively model standard, Aristotelian or classical reasoning in their explications, illustrations and arguments.
- 3. he Bahá'í Writings espouse moderate rationalism which recognizes 'other ways of knowing.' They reject the idea that non-discursive reasoning is necessarily non-rational;
- 4. The Bahá'í Writings use a negative gate-keeper method to protect both the 'unity' and the 'diversity' in "unity-in-diversity";
- 5. The Bahá'í Writings adopt a scientific response to the fallibility of reason;
- 6. Given the pervasive use of standard logic in the Writings, it is reasonable to conclude that they intend this as the universal logic for humankind;
- 7. Arguments against standard logic in the Writings based on post-colonial theory, quantum mechanics or relativity theory are untenable and not persuasive.

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Notes

- ¹ Nicholas Bunnin; Jiyuan Yu (2004). The Blackwell Dictionary of Western philosophy, p. 266: "[Logic] is divided into standard (or classical) logic, non-standard logic and inductive logic. Standard logic includes traditional logic (Aristotelian syllogism) and modern classical logic which is an expansion of traditional logic ..." Also L. T. F. Gamut (1991). Logic, Language, and Meaning, Volume 1: Introduction to Logic, pp. 156-157: propositional and predicate logic (classical logic is propositional) "can nevertheless be regarded as standard logic."
- ² See Ian Kluge, *The Aristotelian Substratum of the Bahá'í Writings* in *Lights of Irfan* 4, p. 17-79, 2003.
- ³ Merriam-Webster Dictionary, http://merriam-webster.com/dictionary/reason
- ⁴ 'Abdu'l-Bahá, *Some Answered Questions*, p. 191. cf. Chapter 49, "*The Growth and Development of the Human Race.*"
- ⁵ Genesis 1:26 in 'Abdu'l-Bahá, Some Answered Questions, p. 192.
- ⁶ From a letter written on behalf of the Universal House of Justice, dated 22 June 1977, online at http://bahailibrary.com/compilation_bahai_scholarship_khan
- ⁷ 'Abdu'l-Bahá, Some Answered Questions, p. 193; emphasis added; see also Shoghi Effendi in The Unfolding Destiny of the British Bahá'í Community, p. 458.
- ⁸ Letter written on behalf of Shoghi Effendi, Feb. 24, 1947 in *Lights of Guidance*, p. 476.; emphasis added.
- ⁹ However, we must not mistake an acceptance of differences in perspective with relativism. Classical, Aristotelian logic asserts that from any one given perspective, only one claim can be true whereas relativism asserts that no truth-claim can be established because there is no absolute standard by which to judge. Relativism accepts even contradictions as 'true,' whereas standard logic does not.
- ¹⁰ This is not a repetition of Zeno's arrow paradox since Zeno was discussing a single trajectory subject to mental divisions and this statement deals with real – not mental – divisions between individual, definite acts.
- ¹¹ An incomplete syllogistic form called an 'enthymeme' is missing one of the propositions, or the conclusion is implied but not stated.
- ¹² 'Abdu'l-Bahá, *Some Answered Questions*, p. 7, 90, 177, 258, 293, 304 to identify only a few.
- ¹³ Bunnin and Yu, editors, *The Black well Dictionary of Western Philosophy*, p. 25.
- ¹⁴ These are known as the dialogues of Plato but feature Socrates as the usual protagonist.

- ¹⁵ Bahá'í International Community, "Consultation," http://info.bahai.org/article-1-3-6-3.html
- ¹⁶ See Ian Kluge, "*Relativism in the Baháí Writings*," (*Lights of Irfan*) for an examination of various passages on this topic.
- ¹⁷ Adib Taherzadeh, *The Revelation of Bahá'u'lláh* v 4, p. 129; emphasis added.
- ¹⁸ Shoghi Effendi, *Extracts from the USBN*, # 85, July 1934, p. 6.
- ¹⁹ Jim Al-Khalili, *Quantum: A Guide for the Perplexed*, p. 132 153.
- ²⁰ 'Abdu'l-Bahá, Some Answered Questions in Part 2 "Some Christian Subjects," pp. 83-143.
- ²¹ Ken Wilber, *The Marriage of Sense and Soul*, p. 92.
- ²² From the Guardian to an individual believer, October 1, 1935: Canadian Bahá'í News, February 1968, p. 11) Compilations, Lights of Guidance, p. 490.
- ²³ Reason and mind are the same in the Writings. 'Abdu'l-Bahá, The Promulgation of Universal Peace, p. 22; also p. 360, p. 287.
- ²⁴ 'Abdu'l-Bahá, *Tablet to the Hague*, p. 5; emphasis added.
- ²⁵ From the Greek 'agape' i.e. love for humanity-in-general.
- ²⁶ 'Abdu'l-Bahá, Selections from the Writings of 'Abdu'l-Bahá, p. 46. See also Some Answered Questions, p. 225 in regards to logical proof for immortality.
- ²⁷ 'Abdu'l-Bahá *The Promulgation of Universal Peace*, p. 303, p. 287; emphasis added.
- ²⁸ Paul Feyerabend, Against Method, p. 5. "The only principle that does not inhibit progress is anything goes."
- ²⁹ The Báb, in Nader Saiedi, *Gate of the Heart*, p, 211.
- ³⁰ Nick Herbert, Quantum Realities.
- ³¹ Roland Omnes, Quantum Philosophy, p. 190; emphasis added.
- ³² Roland Omnes, *Quantum Philosophy*, p. 193.
- ³³ Werrner Heisenberg, *Physics and Philosophy*, p. 155.
- ³⁴ Werrner Heisenberg, *Physics and Philosophy*, p. 154.
- ³⁵ Heisenberg also writes, "The probability wave of Bohr, Kramers, Slater... was a quantitative version of the old concept of "potentia" in Aristotelian philosophy." *Physics and Philosophy*, p. 15.